



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL MODIFICATION  
CUYAHOGA 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: 13-03807**

**Fac ID: 1318558062**

**DATE: 8/1/2006**

Avery Dennison Industrial Products Div  
Carl Muehlman  
17700 Foltz Industrial Parkway  
Strongsville, OH 44149

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

CLAA



Permit To Install  
Terms and Conditions

Issue Date: 8/1/2006  
Effective Date: 8/1/2006

**FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 13-03807**

Application Number: 13-03807  
Facility ID: 1318558062  
Permit Fee: **\$0**  
Name of Facility: Avery Dennison Industrial Products Div  
Person to Contact: Carl Muehlman  
Address: 17700 Foltz Industrial Parkway  
Strongsville, OH 44149

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**17700 Foltz Industrial Parkway**  
**Strongsville, Ohio**

Description of proposed emissions unit(s):  
**Administrative Modification to remove facility-wide limits in preparation of adding new units to this facility which will no longer be minor for Title V purposes.**

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

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

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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.

#### **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 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>
VOC	98.0

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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

Avery

PTI A

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Emissions Unit ID: K001

**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>
K001 - Narrow web continuous flexographic printing press - 641	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 8.5 lbs/hour and 4.0 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit supersede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1. See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.

Emissions Unit ID: K001

- 2.c** The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.I.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.
- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

## **II. Operational Restrictions**

1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;
  - g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;

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- h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
    - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
  - a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;
  - i. the total VOC emissions from all ink, coating, and cleanup material usage, for the flexographic printing lines specified in section A.I.2.a, in pounds or tons;

- j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and
  - k. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines specified in section A.II.1, in tons.
3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
  - a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
  - a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
  - a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and
  - b. an identification of each month during which the rolling, 12-month VOC

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emissions from the cleanup materials applied on the emissions units specified in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

**V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.

**Avery Dennison Industrial Products Div**  
**PTI Application: 12 02807**  
**Modif**

**Facility ID: 131855806**

Emissions Unit ID: K001

d. Emission Limitation:

98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

Avery

PTI A

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Emissions Unit ID: K001

**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>
K001 - Narrow web continuous flexographic printing press - 641		Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (K001) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:
  - a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

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**Avery**

**PTI A**

**Modification Issued: 8/1/2006**

Emissions Unit ID: K001

TLV (mg/m<sup>3</sup>): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

**Modification Issued: 8/1/2006**

Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3): 11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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 (inks, 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.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above

Emissions Unit ID: K001

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) meet(s) the definition of a "modification" under other provisions of the rule, 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 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

**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>
K002 - Narrow web continuous flexographic printing press - 642	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 8.5 lbs/hour and 4.0 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit superscede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1.
		See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.

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- 2.c** The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.I.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.
- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

**II. Operational Restrictions**

- 1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
- 2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

**III. Monitoring and/or Recordkeeping Requirements**

- 1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;

- f. the actual run, press hours for this emissions unit, hours per month;
  - g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;
  - h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
  - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
- a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;
  - i. the total VOC emissions from all ink, coating, and cleanup material usage, for the flexographic printing lines specified in section A.I.2.a, in pounds or tons;

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- j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and
  - k. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines specified in section A.II.1, in tons.
3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
- a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
- a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):

Emissions Unit ID: K002

- a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and
- b. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on the emissions units specified in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

## **V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.
  - d. Emission Limitation:

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Emissions Unit ID: K002

98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

Avery

PTI A

Modification Issued: 8/1/2006

Emissions Unit ID: K002

**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>
K002 - Narrow web continuous flexographic printing press - 642		Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (K002) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:
  - a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

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**Facility ID: 131855806**

Emissions Unit ID: K002

TLV (mg/m3): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

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Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3): 11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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 (inks, 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.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above

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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) meet(s) the definition of a "modification" under other provisions of the rule, 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 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

**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>
K003 - Narrow web continuous flexographic printing press - 644	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 7.9 lbs/hour and 4.0 tons per rolling, 12-month period from ink and coating usage
MODIFIED		
The terms and conditions in this permit supersede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1. See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.

Emissions Unit ID: K003

- 2.c** The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.1.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.
- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

## II. Operational Restrictions

1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;
  - g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;

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- h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
    - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
  - a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;
  - i. the total VOC emissions from all ink, coating, and cleanup material usage, for the flexographic printing lines specified in section A.I.2.a, in pounds or tons;

- j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and
  - k. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines specified in section A.II.1, in tons.
3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
- a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
  - a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
  - a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and
  - b. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on the emissions units specified

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in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

**V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.
  - d. Emission Limitation:

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**Facility ID: 131855806**

Emissions Unit ID: K003

98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

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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>
K003 - Narrow web continuous flexographic printing press - 644		Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (K003) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:
  - a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

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**PTI A**

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Emissions Unit ID: K003

TLV (mg/m<sup>3</sup>): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

**Modification Issued: 8/1/2006**

Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3): 11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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:
- changes in the composition of the materials used (inks, 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;
  - 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,
  - 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.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above

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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) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

4. 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

**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>
K004 - Narrow web continuous flexographic printing press - 662	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 15.0 lbs/hour and 7.0 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		See A.I.2.b.
The terms and conditions in this permit supersede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.

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- 2.c** The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.I.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.
- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

**II. Operational Restrictions**

1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

**III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation

Emissions Unit ID: K004

- of (b x d) for all inks and coatings applied, in pounds per month;
- f. the actual run, press hours for this emissions unit, hours per month;
  - g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;
  - h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
  - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
- a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;
  - i. the total VOC emissions from all ink, coating, and cleanup material usage, for

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- the flexographic printing lines specified in section A.I.2.a, in pounds or tons;
  - j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and
  - k. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines specified in section A.II.1, in tons.
3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
- a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
- a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):

- a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and
- b. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on the emissions units specified in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

## **V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.

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d. Emission Limitation:

98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

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Emissions Unit ID: K004

**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>
K004 - Narrow web continuous flexographic printing press - 662		Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (K004) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:
  - a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

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Emissions Unit ID: K004

TLV (mg/m<sup>3</sup>): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

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**Facility ID: 131855806**

Emissions Unit ID: K004

Predicted 1-Hour Maximum Ground-Level  
 Concentration (ug/m3): 8841

MAGLC (ug/m3): 11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
 toxic pollutants listed above)

b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
 Predicted 1-Hour Maximum Ground-Level  
 Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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 (inks, 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.).
3. 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) meet(s) the definition of a "modification"

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under other provisions of the rule, 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 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

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Emissions Unit ID: K005

**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>
K005 - Narrow web continuous flexographic printing press - 663	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 15.0 lbs/hour and 7.0 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit supersede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1.
		See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.

- 2.c** The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.1.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.
- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

## **II. Operational Restrictions**

1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;
  - g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;

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- h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
  - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
- a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;

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- i. the total VOC emissions from all ink, coating, and cleanup material usage, for the flexographic printing lines specified in section A.I.2.a, in pounds or tons;
  - j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and
  - k. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines specified in section A.II.1, in tons.
3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
- a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
  - a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
  - a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and

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- b. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on the emissions units specified in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

## **V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.

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d. Emission Limitation:

98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

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**PTI Application: 12 02807**  
**Modif**

**Facility ID: 131855806**

Emissions Unit ID: K005

## **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>
K005 - Narrow web continuous flexographic printing press - 663		Air Toxic Policy

### **2. Additional Terms and Conditions**

- 2.a None

## **II. Operational Restrictions**

None

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (K005) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:

- a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

TLV (mg/m<sup>3</sup>): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

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**Modification Issued: 8/1/2006**

Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3): 11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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 (inks, 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.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above

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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) meet(s) the definition of a "modification" under other provisions of the rule, 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 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

### 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>
K006 - Narrow web continuous flexographic printing press - 665	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 5.7 lbs/hour and 3.0 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit supersede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1.
		See A.I.2.c and A.II.1.

##### 2. Additional Terms and Conditions

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.c The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.I.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.

- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

## **II. Operational Restrictions**

1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;
  - g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;

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- h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
  - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
- a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;
  - i. the total VOC emissions from all ink, coating, and cleanup material usage, for the flexographic printing lines specified in section A.I.2.a, in pounds or tons;
  - j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and

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- k. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines specified in section A.II.1, in tons.
3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
  - a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
  - a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
  - a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and
  - b. an identification of each month during which the rolling, 12-month VOC

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emissions from the cleanup materials applied on the emissions units specified in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

## **V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.
  - d. Emission Limitation:  
  
98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

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Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

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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>
K006 - Narrow web continuous flexographic printing press - 665		Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (K006) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:
  - a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

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TLV (mg/m<sup>3</sup>): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

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Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3):11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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:
- changes in the composition of the materials used (inks, 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;
  - 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,
  - 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.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above

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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) meet(s) the definition of a "modification" under other provisions of the rule, 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 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

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Emissions Unit ID: K007

**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>
K007 - Narrow web continuous flexographic printing press - 668	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 15.0 lbs/hour and 7.0 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit supersede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1.
		See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.

- 2.c** The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.I.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.
- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

## **II. Operational Restrictions**

- 1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
- 2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## **III. Monitoring and/or Recordkeeping Requirements**

- 1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;
  - g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;

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- h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
  - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
  
- 2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
  - a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;

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- i. the total VOC emissions from all ink, coating, and cleanup material usage, for the flexographic printing lines specified in section A.I.2.a, in pounds or tons;
  - j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and
  - k. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines specified in section A.II.1, in tons.
3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
- a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
  - a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
  - a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and

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- b. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on the emissions units specified in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

**V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.

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d. Emission Limitation:

98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

**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>
K007 - Narrow web continuous flexographic printing press - 668		Air Toxic Policy

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

- 1. The permit to install for this emissions unit (K007) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:

a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

TLV (mg/m3): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

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Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3): 11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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 (inks, 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.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above

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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) meet(s) the definition of a "modification" under other provisions of the rule, 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 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

### 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>
K008 - Narrow web continuous flexographic printing press - 670	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 15.1 lbs/hour and 7.0 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit supersede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1.
		See A.I.2.c and A.II.1.

##### 2. Additional Terms and Conditions

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.c The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.I.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.

- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

## II. Operational Restrictions

1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;
  - g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;



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- k. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines specified in section A.II.1, in tons.
3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
  - a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
  - a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
  - a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and
  - b. an identification of each month during which the rolling, 12-month VOC

Emissions Unit ID: K008

emissions from the cleanup materials applied on the emissions units specified in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

## **V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.
  - d. Emission Limitation:  
  
98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

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Emissions Unit ID: K008

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

Avery

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Emissions Unit ID: K008

**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>
K008 - Narrow web continuous flexographic printing press - 670		Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit ( K008) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:
  - a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

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Emissions Unit ID: K008

TLV (mg/m<sup>3</sup>): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

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Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3): 11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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:
- changes in the composition of the materials used (inks, 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;
  - 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,
  - 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

Emissions Unit ID: K008

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) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

3. 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

**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>
K009 - Narrow web continuous flexographic printing press - 671	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 14.0 lbs/hour and 7.0 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit supersede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1.
		See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.

- 2.c** The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.I.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.
- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

## **II. Operational Restrictions**

1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;
  - g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;

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- h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
  - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
- 2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
  - a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;
  - i. the total VOC emissions from all ink, coating, and cleanup material usage, for

Emissions Unit ID: K009

- the flexographic printing lines specified in section A.I.2.a, in pounds or tons;
- j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and
  - k. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines specified in section A.II.1, in tons.
3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
- a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
- a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in Section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
- a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and
  - b. an identification of each month during which the rolling, 12-month VOC

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emissions from the cleanup materials applied on the emissions units specified in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

## **V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.

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d. Emission Limitation:

98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

**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>
K009 - Narrow web continuous flexographic printing press - 671		Air Toxic Policy

**2. Additional Terms and Conditions**

**2.a** None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (K009) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:

- a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

TLV (mg/m3): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

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Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3):11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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 (inks, 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.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above

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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) meet(s) the definition of a "modification" under other provisions of the rule, 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 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

**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>
K010 - Narrow web continuous flexographic printing press - 672	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 15.1 lbs/hour and 7.0 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit supersede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31-05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1.
		See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.c The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.I.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.

- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

## **II. Operational Restrictions**

1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;
  - g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;

Emissions Unit ID: K010

- h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
    - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
  - a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;
  - i. the total VOC emissions from all ink, coating, and cleanup material usage, for the flexographic printing lines specified in section A.I.2.a, in pounds or tons;
  - j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and
  - k. the total combined rolling, 12-month summation of the amount of ink and

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coating applied in all flexographic printing lines specified in section A.II.1, in tons.

3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
  - a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
  - a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
  - a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and
  - b. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on the emissions units specified

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Emissions Unit ID: K010

in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

**V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage

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Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in section A.III.1.

b. Emission Limitation:

4.0 tons of VOC per rolling, 12-month period from ink and coating usage

Applicable Compliance Method:

Compliance shall be determined based upon the recordkeeping specified in section A.III.1.

c. Emission Limitation:

17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in section A.III.2.

d. Emission Limitation:

98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

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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>
K010 - Narrow web continuous flexographic printing press - 672		Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (K010) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:
  - a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

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Emissions Unit ID: K010

TLV (mg/m<sup>3</sup>): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

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Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3):11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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 (inks, 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.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above

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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) meet(s) the definition of a "modification" under other provisions of the rule, 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 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

**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>
K011 - Narrow web continuous flexographic printing process - 673	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 14.0 lbs/hour and 7.0 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit supersede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1.
		See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.

- 2.c** The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.I.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.
- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

## **II. Operational Restrictions**

1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;

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- g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;
    - h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
    - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
  - a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;

Emissions Unit ID: K011

- i. the total VOC emissions from all ink, coating, and cleanup material usage, for the flexographic printing lines specified in section A.I.2.a, in pounds or tons;
  - j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and
  - k. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines specified in section A.II.1, in tons.
3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
- a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
  - a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
  - a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and

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- b. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on the emissions units specified in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

**V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.

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Emissions Unit ID: K011

d. Emission Limitation:

98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

**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>
K011 - Narrow web continuous flexographic printing process - 673		Air Toxic Policy

**2. Additional Terms and Conditions**

**2.a** None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (K011) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:

- a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

TLV (mg/m3): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

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Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3): 11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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 (inks, 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.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above

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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) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

4. 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

**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>
K012 - Narrow web continuous flexographic printing press - 674	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 13.9 lbs/hour and 7.0 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit supersede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1.
		See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.c The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.I.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.

- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

## II. Operational Restrictions

1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;
  - g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;

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- h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
  - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
- a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;
  - i. the total VOC emissions from all ink, coating, and cleanup material usage, for the flexographic printing lines specified in section A.I.2.a, in pounds or tons;
  - j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and

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- k. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines specified in section A.II.1, in tons.
3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
  - a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
  - a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
  - a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and
  - b. an identification of each month during which the rolling, 12-month VOC

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emissions from the cleanup materials applied on the emissions units specified in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.
  - d. Emission Limitation:  
  
98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

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Emissions Unit ID: K012

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

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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>
K012 - Narrow web continuous flexographic printing press - 674		Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (K012) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:
  - a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

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TLV (mg/m<sup>3</sup>): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

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Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3):11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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 (inks, 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

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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) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

3. 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

**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>
K013 - Narrow web continuous flexographic printing press - 675	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 13.9 lbs/hour and 7.0 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit supersede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1.
		See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.

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- 2.c** The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.I.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.
  
- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

## **II. Operational Restrictions**

- 1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
  
- 2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## **III. Monitoring and/or Recordkeeping Requirements**

- 1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;

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- g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;
  - h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
  - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
- a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;

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- i. the total VOC emissions from all ink, coating, and cleanup material usage, for the flexographic printing lines specified in section A.I.2.a, in pounds or tons;
  - j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and
  - k. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines specified in section A.II.1, in tons.
3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
    - a. the date the materials from the recovery drum or tank were shipped off site; and
    - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
  - a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
  - a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and

- b. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on the emissions units specified in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

## V. Testing Requirements

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in

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section A.III.2.

d. Emission Limitation:

98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

**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>
K013 - Narrow web continuous flexographic printing press - 675		Air Toxic Policy

**2. Additional Terms and Conditions**

**2.a** None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit ( K013) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:

- a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

TLV (mg/m3): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

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Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3): 11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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 (inks, 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.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above

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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) meet(s) the definition of a "modification" under other provisions of the rule, 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 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

**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>
K014 - Narrow web continuous flexographic printing press - 460	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 1.5 lbs/hour and 0.7 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit supersede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1.
		See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.c The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.I.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.

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- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

**II. Operational Restrictions**

1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

**III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;
  - g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;

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- h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
    - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
  - a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;
  - i. the total VOC emissions from all ink, coating, and cleanup material usage, for the flexographic printing lines specified in section A.I.2.a, in pounds or tons;
  - j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and
  - k. the total combined rolling, 12-month summation of the amount of ink and

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coating applied in all flexographic printing lines specified in section A.II.1, in tons.

3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
  - a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
  - a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
  - a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and
  - b. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on the emissions units specified

Emissions Unit ID: K014

in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

## **V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.
  - d. Emission Limitation:  
  
98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:

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Emissions Unit ID: K014

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

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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>
K014 - Narrow web continuous flexographic printing press - 460		Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (K014) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:
  - a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

**Modification Issued: 8/1/2006**TLV (mg/m<sup>3</sup>): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m<sup>3</sup>): 8841MAGLC (ug/m<sup>3</sup>):11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m<sup>3</sup>): 303Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m<sup>3</sup>): 26MAGLC (ug/m<sup>3</sup>): 7,214

2. 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 (inks, 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.).
3. 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) meet(s) the definition of a "modification" under other provisions of the rule, 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 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

**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>
K015 - Narrow web continous flexographic printing press - 461	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 1.5 lbs/hour and 0.7 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit superscede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1.
		See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of

emissions.

- 2.c** The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.I.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.
- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

## **II. Operational Restrictions**

- 1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
- 2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## **III. Monitoring and/or Recordkeeping Requirements**

- 1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;

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- g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;
    - h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
    - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
  - a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;

Emissions Unit ID: K015

- i. the total VOC emissions from all ink, coating, and cleanup material usage, for the flexographic printing lines specified in section A.I.2.a, in pounds or tons;
  - j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and
  - k. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines specified in section A.II.1, in tons.
3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
- a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
  - a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in Section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
  - a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and

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- b. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on the emissions units specified in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

**V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.

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Emissions Unit ID: K015

d. Emission Limitation:

98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

**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>
K015 - Narrow web continous flexographic printing press - 461		Air Toxic Policy

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

- 1. The permit to install for this emissions unit (K015) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:

- a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

TLV (mg/m3): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

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Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3): 11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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 (inks, 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.).

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3. 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) meet(s) the definition of a "modification" under other provisions of the rule, 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 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

**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>
K016 - Narrow web continuous flexographic printing press - 482	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.6 lbs/hour and 0.3 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit supersede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1.
		See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.c The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.I.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.

- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

## II. Operational Restrictions

1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;
  - g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;

Emissions Unit ID: K016

- h. the total ink and coating usage, calculated as [(c) x (d) in gallons], or (d) if records are maintained in pounds; and
    - i. the rolling, 12-month summation of VOC emissions, from all inks and coatings, in pounds or tons.
2. The permittee shall collect and record the following information each month for the emissions units specified in section A.I.2.a:
  - a. the name and identification number of each cleanup material, employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon or pounds per pound of cleanup material, as applied;
  - c. the amount, in gallons or pounds, of each cleanup material applied;
  - d. if a credit for recovered cleanup/purge materials is to be used to demonstrate compliance and/or used in calculations for emission reports, records of the total amount (gallons or pounds) of cleanup and purge material collected and added to the recovery tank/drum, for recycle, recovery, and/or disposal at an outside facility, shall be maintained as required in section A.III.3;
  - e. if a credit for recovered cleanup/purge material is used, the volume or weight of this material added to the recovery tank/drum, in gallons or pounds per month;
  - f. if a credit for recovered materials is used, the adjusted volume or weight of cleanup/purge materials employed, calculate by subtracting the volume or weight of the recovered cleanup/purge material added to the recovery tank/drum (e), from the volume or weight of the total cleanup/purge material applied (c), in gallons or pounds per month;
  - g. the total VOC emissions from cleanup materials, calculated as the summation of (b x f) for all cleanup materials applied, in pounds or tons per month;
  - h. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in the narrow web flexographic printing presses specified in section A.I.2.a, in tons;
  - i. the total VOC emissions from all ink, coating, and cleanup material usage, for the flexographic printing lines specified in section A.I.2.a, in pounds or tons;
  - j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and
  - k. the total combined rolling, 12-month summation of the amount of ink and

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coating applied in all flexographic printing lines specified in section A.II.1, in tons.

3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
  - a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
  - a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in Section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
  - a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and
  - b. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on the emissions units specified

Emissions Unit ID: K016

in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

## **V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.
  - d. Emission Limitation:  
  
98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:

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Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

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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>
K016 - Narrow web continuous flexographic printing press - 482		Air Toxic Policy

**2. Additional Terms and Conditions**

- 2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (K016) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:
  - a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

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TLV (mg/m<sup>3</sup>): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

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Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3): 11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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:
- changes in the composition of the materials used (inks, 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;
  - 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,
  - 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.).
3. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above

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Emissions Unit ID: K016

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) meet(s) the definition of a "modification" under other provisions of the rule, 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 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

**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>
K017 - Narrow web continuous flexographic printing press - 483	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 0.6 lbs/hour and 0.3 tons per rolling, 12-month period from ink and coating usage.
MODIFIED		
The terms and conditions in this permit superscede the terms in PTI 13-03807 issued on 7/30/2002.	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.b.
	OAC rule 3745-31- 05(C) Synthetic Minor for purposes of avoiding non-attainment new source review	See A.II.1.
		See A.I.2.c and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The emissions units specified in this permit are K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.
- 2.b The maximum annual combined VOC emissions generated by all cleanup material for the emissions units specified in section A.I.2.a shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.

Emissions Unit ID: K017

- 2.c** The maximum annual combined VOC emissions generated by the printing lines and associated cleanup activities for the emissions units specified in section A.1.2.a shall not exceed 98.0 tons per year, based on a rolling, 12-month summation of emissions.
- 2.d** The hourly emission limitation was established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop and maintain daily record keeping requirements to ensure compliance with the hourly VOC emission limit.

## II. Operational Restrictions

1. The total maximum coating and ink usage in all the narrow web flexographic printing lines at this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208) shall not exceed 148 tons per year, based upon a rolling, 12-month summation of the ink and coating usage.
2. To ensure enforceability during the first twelve calendar months of operation, following the issuance of this permit, actual emissions calculated from material usage records from the previous 11 calendar months of operation shall be used to calculate the rolling, 12-month emissions from this emissions unit and the facility.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each ink and coating employed;
  - b. the VOC content of each ink and coating employed, in pounds per gallon or pounds per pound of ink or coating, as applied;
  - c. the density of each ink and coating employed, in pounds per gallon, as applied;
  - d. the amount of each ink and coating applied, in gallons or pounds;
  - e. the total VOC emissions from all inks and coatings, calculated as the summation of (b x d) for all inks and coatings applied, in pounds per month;
  - f. the actual run, press hours for this emissions unit, hours per month;
  - g. the average hourly VOC emissions, calculated as (e/ f), in pounds per hour;



- j. the total rolling, 12-month summation of VOC emissions, for the flexographic printing lines specified in section A.I.2.a, in tons; and
  - k. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines specified in section A.II.1, in tons.
3. If a credit for recovered materials from this emissions unit is used to demonstrate compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup and purge materials, and the recovery drum or tank serving this emissions unit:
- a. the date the materials from the recovery drum or tank were shipped off site; and
  - b. the number of gallons or pounds of materials from the recovery drum or tank shipped off site.

#### **IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) report which include the following information for this emissions unit:
  - a. an identification of each month during which the average hourly VOC emissions, from the use of inks and coatings in this emissions unit, exceed the 8.5 lbs/hour, and the actual average hourly VOC emissions for each such month;
  - b. an identification of each month during which the rolling, 12-month VOC emissions, from the use of inks and coatings in this emissions unit, exceed 4.0 tons, and the actual rolling, 12-month VOC emissions for each such month; and
  - c. an identification of each month in which a credit to the emissions was applied for recovered cleanup/purge materials, and in which records were not also maintained as required in Section A.III.3 for the materials shipped offsite.
2. The permittee shall submit deviation (excursion) reports which include the following information for this facility (including emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, K017, K201, K202, K203, K204, K205, K206, K207, and K208):
  - a. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 148 tons; and
  - b. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on the emissions units specified

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in section A.I.2.a exceed 17.8 tons, based on a rolling, 12-month summation of the emissions from cleanup and purge materials applied on all lines.

All deviation (excursion) reports shall be submitted in accordance with section A.1 of the General Terms and Conditions.

**V. Testing Requirements**

1. Compliance with the emission limitations in section A.1 of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emission Limitation:  
  
8.5 lbs of VOC / hour from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.1.
  - b. Emission Limitation:  
  
4.0 tons of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the recordkeeping specified in section A.III.1.
  - c. Emission Limitation:  
  
17.8 tons VOC per rolling, 12-month period from all cleanup and purge materials applied in the emissions units specified in section A.I.2.a.  
  
Applicable Compliance Method:  
  
Compliance shall be determined based upon the record keeping specified in section A.III.2.
  - d. Emission Limitation:

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Emissions Unit ID: K017

98.0 tons VOC per rolling, 12-month period from the emissions units specified in section A.I.2.a.

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in section A.III.2.

**VI. Miscellaneous Requirements**

None

**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>
K017 - Narrow web continuous flexographic printing press - 483		Air Toxic Policy

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (K017) was evaluated based on the actual materials (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 Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:

- a. Pollutant: Heptane, n-propyl Alcohol, ethanol, IPA, n-propyl acetate, ethyl acetate

TLV (mg/m3): 492 (for n-prpyl alcohol-lowest TVL for toxics listed above)

Maximum Hourly Emission Rate (lbs/hr): 165.7 (total for all emissions units)

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Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 8841

MAGLC (ug/m3):11,714 (for n-propyl alcohol which is the lowest MAGLC for the  
toxic pollutants listed above)

- b. Pollutant: Butanol

TLV (mg/m3): 303

Maximum Hourly Emission Rate (lbs/hr): 0.35 (total for all emissions units)  
Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m3): 26

MAGLC (ug/m3): 7,214

2. 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 (inks, 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.).

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3. 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) meet(s) the definition of a "modification" under other provisions of the rule, 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 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

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Emissions Unit ID: K017