



State of Ohio Environmental Protection Agency

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

**CERTIFIED MAIL**

Street Address:

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

Mailing Address:

Lazarus Gov.  
Center

**Application No: 13-03807**

**DATE: 7/30/2002**

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

Environmental Review Appeals Commission  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo  
Field Operations and Permit Section  
Division of Air Pollution Control

CC: USEPA

CBAPC



**Permit To Install  
Terms and Conditions**

**Issue Date: 7/30/2002  
Effective Date: 7/30/2002**

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

Application Number: 13-03807  
APS Premise Number: 1318558062  
Permit Fee: \$0  
Name of Facility: Avery Dennison Industrial Products Div  
Person to Contact: Mike Kalbaugh  
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 change the facility contact name and the description of the emissions units.**

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 the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous

calendar quarters. See B.10 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 to the appropriate Ohio EPA District Office or local air agency every six months, i.e., 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. 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.

## 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 reissuance, or modification, or for denial of a permit renewal application.
- 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, reopened, 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, reopening 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.

## 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 this Permit To Install.

## 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 of 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, the State, and citizens 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 To Install 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 thirty (30) 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.

**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.

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

### **1. Compliance Requirements**

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

### **2. Reporting Requirements Related to Monitoring and Recordkeeping 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 quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

### **3. Permit Transfers**

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

### **4. Termination of Permit To Install**

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete

within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

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

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

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

#### **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

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

#### 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., 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
Single HAP	9.9
Combined HAP	24.9

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

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

None

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

None

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

**A. State and Federally Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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.  See A.I.2.a
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c, and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.
- 2.c The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 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.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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 individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
  - d. the density of each ink and coating employed, in pounds per gallon, as applied;
  - e. the amount of each ink and coating applied, in gallons or pounds;
  - f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;

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Avery

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Emissions Unit ID: K001

- g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;

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- h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
  - 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in

Emissions Unit ID: K001

- all the facility's narrow web flexographic printing presses, in tons;
- j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;
  - k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
- \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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;

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- 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, and K017):
    - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
    - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
    - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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 all printing lines at the facility\*  
Applicable Compliance Method:  
Compliance shall be determined based upon the record keeping specified in section A.III.2
- d. Emission Limitation:  
9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*  
Applicable Compliance Method:  
Compliance shall be determined based on the recordkeeping specified in section A.III.2
- e. Emission Limitation:  
98 tons VOC per rolling, 12-month period from all printing lines at this facility\*  
Applicable Compliance Method:  
Compliance shall be determined based on the recordkeeping specified in section A.III.2
- \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

## 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>
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

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

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Avery Dennison Industrial Products Div

PTI Application: **12 02007**

**Modif**

Facility ID: **1318558062**

Emissions Unit ID: K001

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/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

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If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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

**Modification Issued: 7/30/2002**

**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.
	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.a.
	OAC rule 3745-31-05(D)	See A.II.1.
		See A.I.2.b, A.I.2.c. and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.
- 2.c The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 tons per year, based on a

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**Modif**

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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.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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 individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
  - d. the density of each ink and coating employed, in pounds per gallon, as applied;
  - e. the amount of each ink and coating applied, in gallons or pounds;
  - f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;

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- g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;

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- h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
  - 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in

Emissions Unit ID: K002

- all the facility's narrow web flexographic printing presses, in tons;
- j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;
  - k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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

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- 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, and K017):
    - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
    - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
    - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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 all printing lines at the facility\*
- Applicable Compliance Method:
- Compliance shall be determined based upon the record keeping specified in section A.III.2
- d. Emission Limitation:
- 9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*
- Applicable Compliance Method:
- Compliance shall be determined based on the recordkeeping specified in section A.III.2
- e. Emission Limitation:
- 98 tons VOC per rolling, 12-month period from all printing lines at this facility\*
- Applicable Compliance Method:
- Compliance shall be determined based on the recordkeeping specified in section A.III.2
- \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

## 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>
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 (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

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

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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/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

**Modif**

Emissions Unit ID: K002

If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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

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

**A. State and Federally Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K003 - Narrow web continuous flexographic printing press - 644	OAC rule 3745-31-05(A)(3)	<p>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.</p> <p>See A.I.2.a.</p>
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c, and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.
- 2.c The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 tons per year, based on a

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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.

\* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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 individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
  - d. the density of each ink and coating employed, in pounds per gallon, as applied;
  - e. the amount of each ink and coating applied, in gallons or pounds;
  - f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e)

for all inks and coatings applied, in pounds per month;

- g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;

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- h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
  - 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in

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- all the facility's narrow web flexographic printing presses, in tons;
  - j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;
  - k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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:

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- 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 7.9 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, and K017):
    - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
    - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
    - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:

7.9 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.

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- 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 all printing lines at the facility\*
- Applicable Compliance Method:
- Compliance shall be determined based upon the record keeping specified in section A.III.2
- d. Emission Limitation:
- 9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*
- Applicable Compliance Method:
- Compliance shall be determined based on the recordkeeping specified in section A.III.2
- e. Emission Limitation:
- 98 tons VOC per rolling, 12-month period from all printing lines at this facility\*
- Applicable Compliance Method:
- Compliance shall be determined based on the recordkeeping specified in section A.III.2

\* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**VI. Miscellaneous Requirements**

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Facility ID: **1318558062**

Emissions Unit ID: K003

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 (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

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

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Emissions Unit ID: K003

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/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

**Modif**

Emissions Unit ID: K003

If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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

**Modification Issued: 7/30/2002**

**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.  See A.I.2.a.
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c, and A.II.1.
	40 CFR, Part 60, Subpart RR	See A.2.e.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.

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- 2.c** The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 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.
- 2.e** The amount of VOC emissions from this emissions unit could never equal or exceed 45 megagrams (49.59 tons) per rolling, 12-month period, without also sustaining a major violation of the rolling 12-month VOC limit for this unit. Therefore the permittee shall not be subject the emission limitation of 0.20 kg VOC/kg of coating solids applied, as required in 40 CFR 60.442(a)(1) or the control requirements in 60.442(a)(2), Subpart RR.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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;

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Emissions Unit ID: K004

- c. the individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
- d. the density of each ink and coating employed, in pounds per gallon, as applied;
- e. the amount of each ink and coating applied, in gallons or pounds;

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- f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;
  - g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;
  - h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
- 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of

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- the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in all the facility's narrow web flexographic printing presses, in tons;
  - j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;
  - k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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 15.0 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 7.0 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, and K017):
  - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
  - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
  - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:  
  
15.0 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:

7.0 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 all printing lines at the facility\*

Applicable Compliance Method:

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

d. Emission Limitation:

9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*

Applicable Compliance Method:

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

e. Emission Limitation:

98 tons VOC per rolling, 12-month period from all printing lines at this facility\*

Applicable Compliance Method:

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

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Facility ID: 1318558062

Emissions Unit ID: K004

- \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**VI. Miscellaneous Requirements**

None

**Modification Issued: 7/30/2002**

**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 (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

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

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Emissions Unit ID: K004

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/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

**Modif**

Emissions Unit ID: K004

If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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

**Modification Issued: 7/30/2002****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)	<p>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.</p> <p>See A.I.2.a.</p>
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c, and A.II.1.
	40 CFR, Part 60, Subpart RR	See A.2.e.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.

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- 2.c** The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 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.
- 2.e** The amount of VOC emissions from this emissions unit could never equal or exceed 45 megagrams (49.59 tons) per rolling, 12-month period, without also sustaining a major violation of the rolling 12-month VOC limit for this unit. Therefore the permittee shall not be subject the emission limitation of 0.20 kg VOC/kg of coating solids applied, as required in 40 CFR 60.442(a)(1) or the control requirements in 60.442(a)(2), Subpart RR.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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;

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Emissions Unit ID: K005

- c. the individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
- d. the density of each ink and coating employed, in pounds per gallon, as applied;
- e. the amount of each ink and coating applied, in gallons or pounds;

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- f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;
  - g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;
  - h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
- 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of

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the total cleanup/purge material applied (d), in gallons or pounds per month;

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- h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in all the facility's narrow web flexographic printing presses, in tons;
  - j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;
  - k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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**

**Modif**

Emissions Unit ID: K005

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 15.0 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 7.0 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, and K017):
  - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
  - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
  - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:
 

15.0 lbs of VOC / hour from ink and coating usage

Applicable Compliance Method:

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

b. Emission Limitation:

7.0 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 all printing lines at the facility\*

Applicable Compliance Method:

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

d. Emission Limitation:

9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*

Applicable Compliance Method:

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

e. Emission Limitation:

98 tons VOC per rolling, 12-month period from all printing lines at this facility\*

Applicable Compliance Method:

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

\* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

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Avery Dennison Industrial Products Div

PTI Application: 12 02007

**Modif**

Facility ID: 1318558062

Emissions Unit ID: K005

**VI. Miscellaneous Requirements**

None

**Modification Issued: 7/30/2002**

**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 (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

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

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Emissions Unit ID: K005

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/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

**Modif**

Emissions Unit ID: K005

If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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

**Modification Issued: 7/30/2002****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)	<p>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.</p> <p>See A.I.2.a.</p>
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c, and A.II.1.
	40 CFR, Part 60, Subpart RR	See A.2.e.

**2. Additional Terms and Conditions**

- 2.a** The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b** The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.

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- 2.c** The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 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.
- 2.e** The amount of VOC emissions from this emissions unit could never equal or exceed 45 megagrams (49.59 tons) per rolling, 12-month period, without also sustaining a major violation of the rolling 12-month VOC limit for this unit. Therefore the permittee shall not be subject the emission limitation of 0.20 kg VOC/kg of coating solids applied, as required in 40 CFR 60.442(a)(1) or the control requirements in 60.442(a)(2), Subpart RR.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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;

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Emissions Unit ID: K006

- c. the individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
- d. the density of each ink and coating employed, in pounds per gallon, as applied;
- e. the amount of each ink and coating applied, in gallons or pounds;

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- f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;
  - g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;
  - h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
- 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of

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- the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in all the facility's narrow web flexographic printing presses, in tons;
  - j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;
  - k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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 5.7 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 3.0 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, and K017):
  - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
  - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
  - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:  
  
5.7 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:

3.0 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 all printing lines at the facility\*

Applicable Compliance Method:

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

d. Emission Limitation:

9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*

Applicable Compliance Method:

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

e. Emission Limitation:

98 tons VOC per rolling, 12-month period from all printing lines at this facility\*

Applicable Compliance Method:

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

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PTI Application: 12 02007

Facility ID: 1318558062

**Modif**

Emissions Unit ID: K006

- \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**VI. Miscellaneous Requirements**

None

**Modification Issued: 7/30/2002**

**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 (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

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

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Emissions Unit ID: K006

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/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

**Modif**

Emissions Unit ID: K006

If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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

**Modification Issued: 7/30/2002****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)	<p>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.</p> <p>See A.I.2.a.</p>
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c, and A.II.1.
	40 CFR, Part 60, Subpart RR	See A.2.e.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.

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- 2.c** The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 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.
- 2.e** The amount of VOC emissions from this emissions unit could never equal or exceed 45 megagrams (49.59 tons) per rolling, 12-month period, without also sustaining a major violation of the rolling 12-month VOC limit for this unit. Therefore the permittee shall not be subject the emission limitation of 0.20 kg VOC/kg of coating solids applied, as required in 40 CFR 60.442(a)(1) or the control requirements in 60.442(a)(2), Subpart RR.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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;

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- c. the individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
- d. the density of each ink and coating employed, in pounds per gallon, as applied;
- e. the amount of each ink and coating applied, in gallons or pounds;

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- f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;
  - g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;
  - h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
- 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of

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- the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in all the facility's narrow web flexographic printing presses, in tons;
  - j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;
  - k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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 15.0 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 7.0 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, and K017):
  - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
  - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
  - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:  
  
15.0 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:

7.0 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 all printing lines at the facility\*

Applicable Compliance Method:

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

d. Emission Limitation:

9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*

Applicable Compliance Method:

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

e. Emission Limitation:

98 tons VOC per rolling, 12-month period from all printing lines at this facility\*

Applicable Compliance Method:

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

**Modif**

Emissions Unit ID: K007

- \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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>
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 (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

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

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Emissions Unit ID: K007

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/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

**Modif**

Emissions Unit ID: K007

If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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

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

**A. State and Federally Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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.  See A.I.2.a.
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c, and A.II.1.
	40 CFR, Part 60, Subpart RR	See A.2.e.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.

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- 2.c** The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 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.
- 2.e** The amount of VOC emissions from this emissions unit could never equal or exceed 45 megagrams (49.59 tons) per rolling, 12-month period, without also sustaining a major violation of the rolling 12-month VOC limit for this unit. Therefore the permittee shall not be subject the emission limitation of 0.20 kg VOC/kg of coating solids applied, as required in 40 CFR 60.442(a)(1) or the control requirements in 60.442(a)(2), Subpart RR.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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;

**Modif**

Emissions Unit ID: K008

- c. the individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
- d. the density of each ink and coating employed, in pounds per gallon, as applied;
- e. the amount of each ink and coating applied, in gallons or pounds;

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- f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;
  - g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;
  - h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
- 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of

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- the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in all the facility's narrow web flexographic printing presses, in tons;
  - j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;
  - k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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 15.1 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 7.0 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, and K017):
  - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
  - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
  - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:  
  
15.1 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:

7.0 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 all printing lines at the facility\*

Applicable Compliance Method:

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

d. Emission Limitation:

9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*

Applicable Compliance Method:

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

e. Emission Limitation:

98 tons VOC per rolling, 12-month period from all printing lines at this facility\*

Applicable Compliance Method:

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

**Modif**

Emissions Unit ID: K008

- \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**VI. Miscellaneous Requirements**

None

**Modification Issued: 7/30/2002**

**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 (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

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

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Emissions Unit ID: K008

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/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

**Modif**

Emissions Unit ID: K008

If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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

**Modification Issued: 7/30/2002**

**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.  See A.I.2.a.
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c, and A.II.1.
	40 CFR, Part 60, Subpart RR	See A.2.e.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.

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- 2.c** The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 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.
- 2.e** The amount of VOC emissions from this emissions unit could never equal or exceed 45 megagrams (49.59 tons) per rolling, 12-month period, without also sustaining a major violation of the rolling 12-month VOC limit for this unit. Therefore the permittee shall not be subject the emission limitation of 0.20 kg VOC/kg of coating solids applied, as required in 40 CFR 60.442(a)(1) or the control requirements in 60.442(a)(2), Subpart RR.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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;

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- c. the individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
- d. the density of each ink and coating employed, in pounds per gallon, as applied;
- e. the amount of each ink and coating applied, in gallons or pounds;

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- f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;
  - g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;
  - h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
- 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of

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- the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in all the facility's narrow web flexographic printing presses, in tons;
  - j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;
  - k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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 14.0 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 7.0 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, and K017):
  - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
  - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
  - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:  
  
14.0 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:

7.0 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 all printing lines at the facility\*

Applicable Compliance Method:

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

d. Emission Limitation:

9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*

Applicable Compliance Method:

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

e. Emission Limitation:

98 tons VOC per rolling, 12-month period from all printing lines at this facility\*

Applicable Compliance Method:

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

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- \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

## **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>
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 (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

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

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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/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

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If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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

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

**A. State and Federally Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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.  See A.I.2.a.
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c, and A.II.1.
	40 CFR, Part 60, Subpart RR	See A.2.e.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.

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- 2.c** The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 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.
- 2.e** The amount of VOC emissions from this emissions unit could never equal or exceed 45 megagrams (49.59 tons) per rolling, 12-month period, without also sustaining a major violation of the rolling 12-month VOC limit for this unit. Therefore the permittee shall not be subject the emission limitation of 0.20 kg VOC/kg of coating solids applied, as required in 40 CFR 60.442(a)(1) or the control requirements in 60.442(a)(2), Subpart RR.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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;

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- c. the individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
- d. the density of each ink and coating employed, in pounds per gallon, as applied;
- e. the amount of each ink and coating applied, in gallons or pounds;

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- f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;
  - g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;
  - h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
- 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of

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- the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in all the facility's narrow web flexographic printing presses, in tons;
  - j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;
  - k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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 15.1 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 7.0 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, and K017):
  - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
  - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
  - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:  
  
15.1 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:

7.0 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 all printing lines at the facility\*

Applicable Compliance Method:

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

d. Emission Limitation:

9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*

Applicable Compliance Method:

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

e. Emission Limitation:

98 tons VOC per rolling, 12-month period from all printing lines at this facility\*

Applicable Compliance Method:

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

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Emissions Unit ID: K010

- \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**VI. Miscellaneous Requirements**

1. Terms in this permit supercede those identified in PTI 13-03460 as emissions unit K013 issued June 30, 1999.

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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 (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

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

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Emissions Unit ID: K010

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/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

**Modif**

Emissions Unit ID: K010

If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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

**Modification Issued: 7/30/2002**

**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.  See A.I.2.a.
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c, and A.II.1.
	40 CFR, Part 60, Subpart RR	See A.2.e.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.

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- 2.c** The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 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.
- 2.e** The amount of VOC emissions from this emissions unit could never equal or exceed 45 megagrams (49.59 tons) per rolling, 12-month period, without also sustaining a major violation of the rolling 12-month VOC limit for this unit. Therefore the permittee shall not be subject the emission limitation of 0.20 kg VOC/kg of coating solids applied, as required in 40 CFR 60.442(a)(1) or the control requirements in 60.442(a)(2), Subpart RR.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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;

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- c. the individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
- d. the density of each ink and coating employed, in pounds per gallon, as applied;
- e. the amount of each ink and coating applied, in gallons or pounds;

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- f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;
  - g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;
  - h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
- 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of

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- the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in all the facility's narrow web flexographic printing presses, in tons;
  - j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;
  - k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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 14.0 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 7.0 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, and K017):
  - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
  - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
  - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:  
  
14.0 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:

7.0 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 all printing lines at the facility\*

Applicable Compliance Method:

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

d. Emission Limitation:

9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*

Applicable Compliance Method:

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

e. Emission Limitation:

98 tons VOC per rolling, 12-month period from all printing lines at this facility\*

Applicable Compliance Method:

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

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Facility ID: 1318558062

Emissions Unit ID: K011

- \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**VI. Miscellaneous Requirements**

1. Terms in this permit supercede those identified in PTI 13-03460 as emissions unit K014 issued June 30, 1999.

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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>
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 (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

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

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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/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

**Modif**

Emissions Unit ID: K011

If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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

**Modification Issued: 7/30/2002****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)	<p>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.</p> <p>See A.I.2.a.</p>
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c., and A.II.1.
	40 CFR, Part 60, Subpart RR	See A.2.e.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.

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- 2.c** The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 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.
- 2.e** The amount of VOC emissions from this emissions unit could never equal or exceed 45 megagrams (49.59 tons) per rolling, 12-month period, without also sustaining a major violation of the rolling 12-month VOC limit for this unit. Therefore the permittee shall not be subject the emission limitation of 0.20 kg VOC/kg of coating solids applied, as required in 40 CFR 60.442(a)(1) or the control requirements in 60.442(a)(2), Subpart RR.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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;

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Emissions Unit ID: K012

- c. the individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
- d. the density of each ink and coating employed, in pounds per gallon, as applied;
- e. the amount of each ink and coating applied, in gallons or pounds;

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- f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;
  - g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;
  - h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
- 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of

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- the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in all the facility's narrow web flexographic printing presses, in tons;
  - j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;
  - k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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 13.9 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 7.0 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, and K017):
  - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
  - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
  - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:  
  
13.9 lbs of VOC / hour from ink and coating usage

**Modification Issued: 7/30/2002**

Applicable Compliance Method:

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

b. Emission Limitation:

7.0 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 all printing lines at the facility\*

Applicable Compliance Method:

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

d. Emission Limitation:

9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*

Applicable Compliance Method:

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

e. Emission Limitation:

98 tons VOC per rolling, 12-month period from all printing lines at this facility\*

Applicable Compliance Method:

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

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PTI Application: 12 02007

**Modif**

Facility ID: 1318558062

Emissions Unit ID: K012

- \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

## **VI. Miscellaneous Requirements**

None

**Modification Issued: 7/30/2002**

**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 (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

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

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**Modification Issued: 7/30/2002**

Emissions Unit ID: K012

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

**Modification Issued: 7/30/2002**

Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

**Modif**

Emissions Unit ID: K012

If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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

**Modification Issued: 7/30/2002**

**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.  See A.I.2.a.
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c, and A.II.1.
	40 CFR, Part 60, Subpart RR	See A.2.e.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.

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- 2.c** The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 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.
- 2.e** The amount of VOC emissions from this emissions unit could never equal or exceed 45 megagrams (49.59 tons) per rolling, 12-month period, without also sustaining a major violation of the rolling 12-month VOC limit for this unit. Therefore the permittee shall not be subject the emission limitation of 0.20 kg VOC/kg of coating solids applied, as required in 40 CFR 60.442(a)(1) or the control requirements in 60.442(a)(2), Subpart RR.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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;

**Modif**

Emissions Unit ID: K013

- c. the individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
- d. the density of each ink and coating employed, in pounds per gallon, as applied;
- e. the amount of each ink and coating applied, in gallons or pounds;

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- f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;
  - g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;
  - h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
- 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of

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- the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in all the facility's narrow web flexographic printing presses, in tons;
  - j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;
  - k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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 13.9 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 7.0 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, and K017):
  - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
  - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
  - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:  
  
13.9 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:

7.0 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 all printing lines at the facility\*

Applicable Compliance Method:

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

d. Emission Limitation:

9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*

Applicable Compliance Method:

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

e. Emission Limitation:

98 tons VOC per rolling, 12-month period from all printing lines at this facility\*

Applicable Compliance Method:

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

**Modif**

Emissions Unit ID: K013

- \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**VI. Miscellaneous Requirements**

None

**Modification Issued: 7/30/2002**

**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 (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

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

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**Modification Issued: 7/30/2002**

Emissions Unit ID: K013

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

**Modification Issued: 7/30/2002**

Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

**Modif**

Emissions Unit ID: K013

If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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

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

**A. State and Federally Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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.  See A.I.2.a.
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c, and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.
- 2.c The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 tons per year, based on a

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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.

\* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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 individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
  - d. the density of each ink and coating employed, in pounds per gallon, as applied;
  - e. the amount of each ink and coating applied, in gallons or pounds;
  - f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e)

for all inks and coatings applied, in pounds per month;

- g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;

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- h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
  - 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in

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- all the facility's narrow web flexographic printing presses, in tons;
  - j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;
  - k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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:

**Modif**

Emissions Unit ID: K014

- 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 1.5 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 0.7 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, and K017):
    - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
    - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
    - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:

1.5 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.

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- b. Emission Limitation:
- 0.7 ton 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 all printing lines at the facility\*
- Applicable Compliance Method:
- Compliance shall be determined based upon the record keeping specified in section A.III.2
- d. Emission Limitation:
- 9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*
- Applicable Compliance Method:
- Compliance shall be determined based on the recordkeeping specified in section A.III.2
- e. Emission Limitation:
- 98 tons VOC per rolling, 12-month period from all printing lines at this facility\*
- Applicable Compliance Method:
- Compliance shall be determined based on the recordkeeping specified in section A.III.2
- \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**VI. Miscellaneous Requirements**

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PTI Application: **12 02007**

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Facility ID: **1318558062**

Emissions Unit ID: K014

None

**Modification Issued: 7/30/2002**

**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 (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

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

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Emissions Unit ID: K014

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/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

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If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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>
K015 - Narrow web continuous 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.  See A.I.2.a.
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c, and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.
- 2.c The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 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.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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 individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
  - d. the density of each ink and coating employed, in pounds per gallon, as applied;
  - e. the amount of each ink and coating applied, in gallons or pounds;
  - f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;

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- g. the total individual HAP emissions from all inks and coatings, calculated as the summation of © x e) for all inks and coatings, in pounds per month;
  - h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as (f / h), in pounds per hour;
  - j. the total ink and coating usage, calculated as [(d) x (e) in gallons], or (e) if records are maintained in pounds; and
  - k. 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 facility\*:
  - 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of (b x g) for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in all the facility's narrow web flexographic printing presses, in tons;

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- j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;

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- k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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 1.5 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

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the use of inks and coatings in this emissions unit, exceed 0.7 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, and K017):
    - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
    - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
    - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:  
  
1.5 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:  
  
0.7 ton of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:

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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 all printing lines at the facility\*

Applicable Compliance Method:

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

d. Emission Limitation:

9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*

Applicable Compliance Method:

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

e. Emission Limitation:

98 tons VOC per rolling, 12-month period from all printing lines at this facility\*

Applicable Compliance Method:

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

\* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

## VI. Miscellaneous Requirements

None

**Modification Issued: 7/30/2002**

**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 continuous 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 (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

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

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Emissions Unit ID: K015

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/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

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If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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>
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.  See A.I.2.a.
	OAC rule 3745-21-09(Y)(2)(B)	See A.II.1.
	OAC rule 3745-31-05(D)	See A.I.2.b, A.I.2.c, and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.
- 2.c The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 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.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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 individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
  - d. the density of each ink and coating employed, in pounds per gallon, as applied;
  - e. the amount of each ink and coating applied, in gallons or pounds;
  - f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;

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- g. the total individual HAP emissions from all inks and coatings, calculated as the summation of  $(c \times e)$  for all inks and coatings, in pounds per month;
  - h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as  $(f / h)$ , in pounds per hour;
  - j. the total ink and coating usage, calculated as  $[(d) \times (e)$  in gallons], or  $(e)$  if records are maintained in pounds; and
  - k. 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 facility\*:
- 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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  $(f)$ , from the volume or weight of the total cleanup/purge material applied  $(d)$ , in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of  $(b \times g)$  for all cleanup materials applied, in pounds or tons per month;
  - i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in all the facility's narrow web flexographic printing presses, in tons;

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- j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;

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- k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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 0.6 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

Emissions Unit ID: K016

the use of inks and coatings in this emissions unit, exceed 0.3 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, and K017):
    - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
    - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
    - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:  
  
0.6 lb 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:  
  
0.3 ton of VOC per rolling, 12-month period from ink and coating usage  
  
Applicable Compliance Method:

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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 all printing lines at the facility\*

Applicable Compliance Method:

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

d. Emission Limitation:

9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*

Applicable Compliance Method:

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

e. Emission Limitation:

98 tons VOC per rolling, 12-month period from all printing lines at this facility\*

Applicable Compliance Method:

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

\* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

## VI. Miscellaneous Requirements

None

**Modification Issued: 7/30/2002**

**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 (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

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

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**Modif**

Facility ID: **1318558062**

Emissions Unit ID: K016

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

**Modification Issued: 7/30/2002**

Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

**Modification Issued: 7/30/2002**

If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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

**Modification Issued: 7/30/2002**

**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.
	OAC rule 3745-21-09(Y)(2)(B)	See A.I.2.a.
	OAC rule 3745-31-05(D)	See A.II.1.
		See A.I.2.b, A.I.2.c, and A.II.1.

**2. Additional Terms and Conditions**

- 2.a The maximum annual combined VOC emissions generated by all cleanup material at this facility\* shall not exceed 17.8 tons per year, based on a rolling, 12-month summation of emissions.
- 2.b The maximum annual combined Hazardous Air Pollutant (HAP) emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 9.9 tons per year for any single HAP and 24.9 tons per year for combined HAPs, based on a rolling, 12-month summation of emissions.
- 2.c The maximum annual combined VOC emissions generated by all printing lines and associated cleanup activities at this facility\* shall not exceed 98 tons per year, based on a

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Avery Dennison Industrial Products Div

PTI Application: **12 02007**

**Modif**

Facility ID: **1318558062**

Emissions Unit ID: K017

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.
- \* the emission limits for the facility shall include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

**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, and K017) shall not exceed 126 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 individual HAP content of each ink and coating employed, in pounds per gallon or pound per pound of ink or coating, as applied;
  - d. the density of each ink and coating employed, in pounds per gallon, as applied;
  - e. the amount of each ink and coating applied, in gallons or pounds;
  - f. the total VOC emissions from all inks and coatings, calculated as the summation of (b x e) for all inks and coatings applied, in pounds per month;

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- g. the total individual HAP emissions from all inks and coatings, calculated as the summation of  $(c \times e)$  for all inks and coatings, in pounds per month;
  - h. the actual run, press hours for this emissions unit, hours per month;
  - i. the average hourly VOC emissions, calculated as  $(f / h)$ , in pounds per hour;
  - j. the total ink and coating usage, calculated as  $[(d) \times (e) \text{ in gallons}]$ , or  $(e)$  if records are maintained in pounds; and
  - k. 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 facility\*:
- 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 individual HAP content of each cleanup material employed, in pound(s) per gallon or pound(s) per pound of cleanup material, as applied;
  - d. the amount, in gallons or pounds, of each cleanup material applied;
  - e. 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;
  - f. 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;
  - g. 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 (f), from the volume or weight of the total cleanup/purge material applied (d), in gallons or pounds per month;
  - h. the total VOC emissions from cleanup materials, calculated as the summation of  $(b \times g)$

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for all cleanup materials applied, in pounds or tons per month;

- i. the rolling, 12-month summation of VOC emissions from all cleanup materials applied in all the facility's narrow web flexographic printing presses, in tons;
- j. the total individual HAP emissions from cleanup materials, calculated as the summation of [(c) x (g)] for all cleanup materials applied during the month;

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- k. the total individual and combined HAP emissions from all inks, coatings, and the cleanup materials applied, in pounds or tons per month;
  - l. the total rolling, 12-month summation of each individual HAP and the combined HAPs from all ink, coating, and cleanup material usage, on all the narrow web flexographic printing lines at this facility, in tons;
  - m. the total VOC emissions from all ink, coating, and cleanup material usage, for all flexographic printing lines at this facility, in pounds or tons;
  - n. the total rolling, 12-month summation of VOC emissions, for all flexographic printing lines at this facility, in tons; and
  - o. the total combined rolling, 12-month summation of the amount of ink and coating applied in all flexographic printing lines at this facility, in tons.
  - \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017
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 0.6 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

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- the use of inks and coatings in this emissions unit, exceed 0.3 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, and K017):
    - a. an identification of each month during which the rolling, 12-month HAP emissions exceed 9.9 tons for any single HAP and 24.9 tons for combined HAPs, based on a rolling, 12-month summation of emissions from all materials applied on all lines;
    - b. an identification of each month during which the rolling, 12-month ink and coating usage for the facility exceeded 126 tons; and
    - c. an identification of each month during which the rolling, 12-month VOC emissions from the cleanup materials applied on all printing lines at the facility, 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:  
  
0.6 lb 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:
- 0.3 ton 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 all printing lines at the facility\*
- Applicable Compliance Method:
- Compliance shall be determined based upon the record keeping specified in section A.III.2
- d. Emission Limitation:
- 9.9 tons of any single HAP per rolling, 12-month period and 24.9 tons of combined HAPs per rolling, 12-month period from the application of all materials on all printing lines at this facility\*
- Applicable Compliance Method:
- Compliance shall be determined based on the recordkeeping specified in section A.III.2
- e. Emission Limitation:
- 98 tons VOC per rolling, 12-month period from all printing lines at this facility\*
- Applicable Compliance Method:
- Compliance shall be determined based on the recordkeeping specified in section A.III.2
- \* the facility printing lines include emission units numbered K001, K002, K003, K004, K005, K006, K007, K008, K009, K010, K011, K012, K013, K014, K015, K016, and K017.

## VI. Miscellaneous Requirements

None

**Modification Issued: 7/30/2002**

**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 (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

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

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Emissions Unit ID: K017

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

**Modification Issued: 7/30/2002**

Predicted 1-Hour Maximum Ground-Level  
Concentration (ug/m<sup>3</sup>): 8841

MAGLC (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>): 303

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

MAGLC (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.).

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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required.

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Emissions Unit ID: K017

If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), 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