



State of Ohio Environmental Protection Agency

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

CERTIFIED MAIL

Street Address:

122 S. Front Street

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

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 13-03980

Fac ID: 1318533475

DATE: 8/12/2004

International Paper, Cleveland Container
Adam Cody
6225 Camp Industrial Road
Solon, OH 44139

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

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

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

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

Sincerely,

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

cc: USEPA

CLAA



**Permit To Install
Terms and Conditions**

**Issue Date: 8/12/2004
Effective Date: 8/12/2004**

FINAL PERMIT TO INSTALL 13-03980

Application Number: 13-03980
Facility ID: 1318533475
Permit Fee: **\$11000**
Name of Facility: International Paper, Cleveland Container
Person to Contact: Adam Cody
Address: 6225 Camp Industrial Road
Solon, OH 44139

Location of proposed air contaminant source(s) [emissions unit(s)]:
**6225 Camp Industrial Road
Solon, Ohio**

Description of proposed emissions unit(s):
Cutting, gluing, and coating lines -- K001-K002, P002 - P006.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

3. Records Retention Requirements

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

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

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

6. Permit Transfers

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

7. Air Pollution Nuisance

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

8. Termination of Permit to Install

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

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions

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and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

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

10. Public Disclosure

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

11. Applicability

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

12. Best Available Technology

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

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

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

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14. Construction Compliance Certification

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

15. Fees

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

B. Permit to Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	99.0
Individual HAPs	10.0
Combined HAPs	25.0
PE	12.65

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K001 - 66 inch x 110 inch, Ward Flexographic Printing Press (2-color, with 1 cold glue station) - new equipment to replace old Ward press.	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 163.1 lbs/day from a combination of inks, coatings, adhesives, and clean-up materials.
		Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 29.75 tpy, as a rolling 12-month summation, from a combination of inks, coatings, adhesives, and clean-up materials.
		See Section A.2. and Section B.
		The requirements of this rule include compliance with the requirements of OAC rule (s) 3745-21-09(Y)(1)(A); and 3745-31-05(C). The requirements of this rule also include compliance with the requirements of 40 CFR 63 Subpart KK.
	40 CFR 63 Subpart KK	See Section A.2.a
	OAC rule 3745-21-09(Y)(1)(A)	See Section B.1
	OAC rule 3745-31-05(C) Synthetic Minor to avoid Title V and MACT	See Section A.2.a through Section A.2.d

2. Additional Terms and Conditions

- 2.a** In order to comply with the requirements of 40 CFR Part 63 Subpart KK, the permittee has chosen to commit to, and meet, the criteria outlined in 40 CFR 63.820(a)(2) for purposes of establishing the facility as an area source. To maintain status as an area source under this standard, the facility* shall not exceed the following as a rolling, 12-month summation:
- i. use less than 9.1 Mg (10 tons) per each rolling, 12-month period of each HAP at the facility, including materials used for source categories or purposes other than printing and publishing; and
 - ii. use less than 22.7 Mg (25 tons) per each rolling, 12-month period of any combination of HAP at the facility, including materials used for source categories or purposes other than printing and publishing.
- 2.b** The maximum annual VOC emissions generated and VOC material used at this facility* shall not exceed 99 tons per year, based on a rolling, 12-month summation of emissions and material usage.
- 2.c** The maximum annual Hazardous Air Pollutant (HAP) emissions generated at this facility* shall not exceed 10 tons per year for any single HAP and 25 tons per year for any combined HAPs, based on a rolling, 12-month summation of emissions.
- 2.d** The daily and annual VOC emission limitations are based on the emission units' potential to emit**. Therefore, daily record keeping or reporting is not required to demonstrate compliance with these limits.
- * the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.
- ** the potential to emit calculations are developed from the Printing Industry of Ohio's guidance document titled: "A Self Help Guide to Environmentally Sound Printing Operations".

B. Operational Restrictions

1. The VOC content of all coatings and inks used in this emissions unit shall not exceed forty per

cent VOC by volume, excluding water and exempt solvents.

2. To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual HAP and VOC emissions calculated from material usage records over the previous twelve calendar months of operation shall be used to determine the rolling, 12-month emissions for the facility.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the VOC content of each coating in percent VOC by volume, excluding water and exempt solvents, as applied [calculated in accordance with the equation specified in paragraph (B) of OAC rule 3745-21-10].
2. The permittee shall collect and record the following information each month for all flexographic, packaging rotogravure, and publication rotogravure printing lines*:
 - a. the name and identification number of each ink, additive, adhesive, and cleanup material employed;
 - b. the weight, in pounds per month, of each ink, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total VOC material usage and emissions from all ink, additive, adhesive, and cleanup** materials employed calculated by summing the records of [(2.b) x (2.c)] for each ink, additive, adhesive, and cleanup materials, in pounds per month;
 - e. the rolling, 12-month summation of VOC material usage and emissions from all ink, additive, adhesive, and cleanup materials employed, in tons; and
 - f. the actual operation hours for all printing presses combined, in hours per month.

* flexographic, packaging rotogravure, and publication rotogravure printing lines for the facility shall include the following units: K001, K002, P004, P005, and all future flexographic, packaging rotogravure, and publication rotogravure printing lines proposed for this location.

** 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 the cleanup/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 C.5.

3. The permittee shall collect and record the following information each month for the facility*:
 - a. the name and identification number of each ink, additive, adhesive, and cleanup material employed;
 - b. the weight, in pounds per month, of each ink, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total VOC material usage and emissions from all ink, additive, adhesive, and cleanup** materials employed calculated by summing the records of [(3.b) x (3.c)] for each ink, additive, adhesive, and cleanup materials, in pounds per month;
 - e. the rolling, 12-month summation of VOC material usage and emissions from all ink, additive, adhesive, and cleanup materials employed, in tons;
 - f. the individual HAP and combined HAP content for each ink, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - g. the total individual HAP and combined HAP material usage and emissions from all ink, additive, adhesive, and cleanup** materials employed calculated by summing the records of [(3.b) x (3.f)] for each ink, additive, adhesive, and cleanup material, in pounds per month; and
 - h. the rolling, 12-month summation of each individual HAP and combined HAP material usage and emissions from all ink, additive, adhesive, and cleanup materials employed, in tons.
- * the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.
- ** 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 the cleanup/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 C.5.

4. The permittee shall collect and record the following information for this emission unit each month:
- the actual monthly press operation hours, in hours per month;
 - the number of days the press operated during the month;
 - the monthly VOC emissions from printing activities, calculated as [(2.d.) x (most recent product per press allocation factor*)], in pounds per month; and
 - the average daily VOC emissions, calculated as [(4.c.) / (4.b.)].
- * the 'product per press allocation factor' is calculated following the guidelines outlined in the Printing Industry of Ohio (PIO's) resource document titled "A Self Help Guide to Environmentally Sound Printing Operations" and is based on typical material usage rates and print capacity. The allocation factors at the time of this permit are as follows:
- | | | |
|--------------------|--------------------|--------------------|
| K001 = 0.242966454 | K002 = 0.128451311 | P004 = 0.220592942 |
| P005 = 0.220592942 | P008 = 0.187396352 | |
5. If a credit for recovered materials is used to demonstrate facility* compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup/purge materials and the recovery drum, or tank, serving this emissions unit:
- the date the materials from the recovery drum or tank were shipped off site;
 - the amount of cleanup/purge material, in gallons or pounds, from the recovery drum or tank shipped off site;
 - the average density of the cleanup/purge material, in pounds per gallon, from the recovery drum or tank (if the amount is recorded in gallons);
 - the average VOC content for the recovered cleanup/purge material, in percent by weight; and
 - the average VOC emissions from the recovered cleanup/purge materials [(5.b.) x (5.d.)], in pounds. Note the average VOC emissions, in pounds, from the recovered cleanup/purge material is calculated as [(5.b.) x (5.c.) x (5.d.)] if the material amount is recorded in gallons.
- * the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory

requirements for such status.

6. The permit to install for this emissions unit was evaluated based on the actual 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: Acetaldehyde
TLV (mg/m³): 45.04
Maximum Hourly Emission Rate (lbs/hr): 0.6 (adhesive)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.0466
MAGLC (ug/m³): 1072.4
 - b. Pollutant: Methyl Alcohol
TLV (mg/m³): 262.09
Maximum Hourly Emission Rate (lbs/hr): 6.79 (ink and adhesive)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 200.9421
MAGLC (ug/m³): 6240.14
 - c. Pollutant: Methyl Isobutyl Ketone
TLV (mg/m³): 204.83
Maximum Hourly Emission Rate (lbs/hr): 6.19 (ink)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 31.6796
MAGLC (ug/m³): 4876.81
7. 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, adhesives, 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. 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.

8. 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.

D. Reporting Requirements

1. The permittee shall notify the Cleveland Division of Air Quality (Cleveland DAQ) in writing of any monthly record showing the use of noncomplying coatings (40% VOC by Volume). The notification shall include a copy of such record and shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified.
2. The permittee shall notify the Cleveland Division of Air Quality (Cleveland DAQ) in writing of any monthly record showing that the average daily emissions limitation for this emissions unit has been exceeded. The notification shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified and shall include the following:
 - a. a copy of any such record;
 - b. an identification of the probable cause for such deviation; and
 - c. any corrective actions or preventative measures which have been, or will be taken, to correct the situation.
3. The permittee shall submit deviation (excursion) reports which include the following information for the facility* :
 - a. an identification of each month during which the rolling, 12-month individual HAP material usage and emissions exceed 10.0 tons/yr based on a rolling, 12-month summation;
 - b. an identification of each month during which the rolling, 12-month combined HAP

material usage and emissions exceed 25.0 tons/yr based on a rolling, 12-month summation;

- c. an identification of each month during which the rolling, 12-month VOC material usage and emissions exceed 99.0 tons/yr based on a rolling, 12-month summation;

The deviation (excursion) report shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified and shall include a copy of any such record; an identification of the probable cause for such deviation; and any corrective actions or preventative measures which have been, or will be taken, to correct the situation.

- * the facility shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.
4. As required by 40 CFR 63.830(b)(1), the permittee shall submit to the Cleveland DAQ an initial notification report* no later than May 30, 1998, that contains the following information:
 - a. the name, title and address of the owner or operator;
 - b. the address (i.e., physical location) of the affected source;
 - c. identification of the applicable emission limitations and compliance date;
 - d. a statement of whether the affected emissions unit is located at a major source or at an area source; and
 - e. a brief description of each affected emissions unit, including the type of process operation performed.
- * the permit application may be used in lieu of the initial notification [per 40 CFR §63.830(b)(1)(iii)].

E. Testing Requirements

1. Compliance with the emission limitation(s) and operational restriction specified in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation:
163 lbs VOC / day

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.

- b. Emission Limitation:
29.75 tpy VOC

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C and the following equation:

$$\text{VOC (tpy)} = (\text{summation of Section C.4.c. over the previous 12-month calendar year}) / 2000$$

- c. Emission Limitation:
99 tons VOC per rolling, 12-month period for this facility*

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in Section C.

- d. Emission Limitation:
10 tons individual HAP emissions per rolling, 12-month period for this facility*

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in Sections C.

- e. Emission Limitation:
25 tons combined HAP emissions per rolling, 12-month period for this facility*

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in Sections C.

- f. Operational Limitation:
VOC content of all coatings shall not exceed 40 % VOC by volume, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance with the above limitation shall be based on the record keeping specified in section C.1. The VOC content of the coatings shall be determined using USEPA Methods 24 (for coatings) and 24A (for flexographic and rotogravure printing inks) of 40 CFR, Part 60, Appendix A.

* the facility emission (or usage) limits shall include emissions (or usage) from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location

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Emissions Unit ID: **K001**

unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-31-05(C) Synthetic Minor to avoid Title V and MACT
K002 - S and S Flexo Folder Gluer for printing, folding, and gluing corrugated shipping containers (1 cold glue station).	OAC rule 3745-31-05(A)(3)	
	40 CFR 63 Subpart KK	
	OAC rule 3745-21-09(Y)(1)(A)	

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PTI A
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Emissions Unit ID: **K002**

Applicable Emissions
Limitations/Control Measures

Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 93.0 lbs/day from a combination of inks, coatings, adhesives, and clean-up materials.

Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 16.97 tpy, as a rolling 12-month summation, from a combination of inks, coatings, adhesives, and clean-up materials.

See Section A.2. and Section B.

The requirements of this rule include compliance with the requirements of OAC rule (s) 3745-21-09(Y)(1)(A); and 3745-31-05(C). The requirements of this rule also include compliance with the requirements of 40 CFR 63 Subpart KK.

See Section A.2.a

See Section B.1

See Section A.2.a through Section A.2.d

2. Additional Terms and Conditions

- 2.a** In order to comply with the requirements of 40 CFR Part 63 Subpart KK, the permittee has chosen to commit to, and meet, the criteria outlined in 40 CFR 63.820(a)(2) for purposes of establishing the facility as an area source. To maintain status as an area

source under this standard, the facility* shall not exceed the following as a rolling, 12-month summation:

- i. use less than 9.1 Mg (10 tons) per each rolling, 12-month period of each HAP at the facility, including materials used for source categories or purposes other than printing and publishing; and
 - ii. use less than 22.7 Mg (25 tons) per each rolling, 12-month period of any combination of HAP at the facility, including materials used for source categories or purposes other than printing and publishing.
- 2.b** The maximum annual VOC emissions generated and VOC material used at this facility* shall not exceed 99 tons per year, based on a rolling, 12-month summation of emissions and material usage.
- 2.c** The maximum annual Hazardous Air Pollutant (HAP) emissions generated at this facility* shall not exceed 10 tons per year for any single HAP and 25 tons per year for any combined HAPs, based on a rolling, 12-month summation of emissions.
- 2.d** The daily and annual VOC emission limitations are based on the emission units' potential to emit**. Therefore, daily record keeping or reporting is not required to demonstrate compliance with these limits.

* the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.

** the potential to emit calculations are developed from the Printing Industry of Ohio's guidance document titled: "A Self Help Guide to Environmentally Sound Printing Operations".

B. Operational Restrictions

1. The VOC content of all coatings and inks used in this emissions unit shall not exceed forty per cent VOC by volume, excluding water and exempt solvents.
2. To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual HAP and VOC emissions calculated from material usage records over the previous twelve calendar months of operation shall be used to determine the rolling, 12-month emissions for the facility.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the VOC content of each coating in percent VOC by volume, excluding water and exempt solvents, as applied [calculated in accordance with the equation specified in paragraph (B) of OAC rule 3745-21-10].
2. The permittee shall collect and record the following information each month for all flexographic, packaging rotogravure, and publication rotogravure printing lines*:
 - a. the name and identification number of each ink, additive, adhesive, and cleanup material employed;
 - b. the weight, in pounds per month, of each ink, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total VOC material usage and emissions from all ink, additive, adhesive, and cleanup** materials employed calculated by summing the records of [(2.b) x (2.c)] for each ink, additive, adhesive, and cleanup materials, in pounds per month;
 - e. the rolling, 12-month summation of VOC material usage and emissions from all ink, additive, adhesive, and cleanup materials employed, in tons; and
 - f. the actual operation hours for all printing presses combined, in hours per month.

* flexographic, packaging rotogravure, and publication rotogravure printing lines for the facility shall include the following units: K001, K002, P004, P005, and all future flexographic, packaging rotogravure, and publication rotogravure printing lines proposed for this location.

** 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 the cleanup/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 C.5.
3. The permittee shall collect and record the following information each month for the facility*:
 - a. the name and identification number of each ink, additive, adhesive, and cleanup material employed;

- b. the weight, in pounds per month, of each ink, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total VOC material usage and emissions from all ink, additive, adhesive, and cleanup** materials employed calculated by summing the records of [(3.b) x (3.c)] for each ink, additive, adhesive, and cleanup materials, in pounds per month;
 - e. the rolling, 12-month summation of VOC material usage and emissions from all ink, additive, adhesive, and cleanup materials employed, in tons;
 - f. the individual HAP and combined HAP content for each ink, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - g. the total individual HAP and combined HAP material usage and emissions from all ink, additive, adhesive, and cleanup** materials employed calculated by summing the records of [(3.b) x (3.f)] for each ink, additive, adhesive, and cleanup material, in pounds per month; and
 - h. the rolling, 12-month summation of each individual HAP and combined HAP material usage and emissions from all ink, additive, adhesive, and cleanup materials employed, in tons.
- * the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.
- ** 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 the cleanup/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 C.5.
4. The permittee shall collect and record the following information for this emission unit each month:
- a. the actual monthly press operation hours, in hours per month;
 - b. the number of days the press operated during the month;
 - c. the monthly VOC emissions from printing activities, calculated as [(2.d.) x (most recent

product per press allocation factor*]), in pounds per month; and

d. the average daily VOC emissions, calculated as [(4.c.) / (4.b.)].

* the 'product per press allocation factor' is calculated following the guidelines outlined in the Printing Industry of Ohio (PIO's) resource document titled "A Self Help Guide to Environmentally Sound Printing Operations" and is based on typical material usage rates and print capacity. The allocation factors at the time of this permit are as follows:

K001 = 0.242966454	K002 = 0.128451311	P004 = 0.220592942
P005 = 0.220592942	P008 = 0.187396352	

5. If a credit for recovered materials is used to demonstrate facility* compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup/purge materials and the recovery drum, or tank, serving this emissions unit:
- the date the materials from the recovery drum or tank were shipped off site;
 - the amount of cleanup/purge material, in gallons or pounds, from the recovery drum or tank shipped off site;
 - the average density of the cleanup/purge material, in pounds per gallon, from the recovery drum or tank (if the amount is recorded in gallons);
 - the average VOC content for the recovered cleanup/purge material, in percent by weight; and
 - the average VOC emissions from the recovered cleanup/purge materials [(5.b.) x (5.d.)], in pounds. Note the average VOC emissions, in pounds, from the recovered cleanup/purge material is calculated as [(5.b.) x (5.c.) x (5.d.)] if the material amount is recorded in gallons.
- * the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.
6. The permit to install for this emissions unit was evaluated based on the actual 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"

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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: Acetaldehyde
TLV (mg/m³): 45.04
Maximum Hourly Emission Rate (lbs/hr): 0.6 (adhesive)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.0466
MAGLC (ug/m³): 1072.4
 - b. Pollutant: Methyl Alcohol
TLV (mg/m³): 262.09
Maximum Hourly Emission Rate (lbs/hr): 6.79 (ink and adhesive)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 106.1629
MAGLC (ug/m³): 6240.14
 - c. Pollutant: Methyl Isobutyl Ketone
TLV (mg/m³): 204.83
Maximum Hourly Emission Rate (lbs/hr): 6.19 (ink)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 31.6796
MAGLC (ug/m³): 4876.81
7. 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, adhesives, 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. 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.

8. 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.

D. Reporting Requirements

1. The permittee shall notify the Cleveland Division of Air Quality (Cleveland DAQ) in writing of any monthly record showing the use of noncomplying coatings (40% VOC by Volume). The notification shall include a copy of such record and shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified.
2. The permittee shall notify the Cleveland Division of Air Quality (Cleveland DAQ) in writing of any monthly record showing that the average daily emissions limitation for this emissions unit has been exceeded. The notification shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified and shall include the following:
 - a. a copy of any such record;
 - b. an identification of the probable cause for such deviation; and
 - c. any corrective actions or preventative measures which have been, or will be taken, to correct the situation.
3. The permittee shall submit deviation (excursion) reports which include the following information for the facility* :

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- a. an identification of each month during which the rolling, 12-month individual HAP material usage and emissions exceed 10.0 tons/yr based on a rolling, 12-month summation;
- b. an identification of each month during which the rolling, 12-month combined HAP material usage and emissions exceed 25.0 tons/yr based on a rolling, 12-month summation;
- c. an identification of each month during which the rolling, 12-month VOC material usage and emissions exceed 99.0 tons/yr based on a rolling, 12-month summation;

The deviation (excursion) report shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified and shall include a copy of any such record; an identification of the probable cause for such deviation; and any corrective actions or preventative measures which have been, or will be taken, to correct the situation.

- * the facility shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.
4. As required by 40 CFR 63.830(b)(1), the permittee shall submit to the Cleveland DAQ an initial notification report* no later than May 30, 1998, that contains the following information:
 - a. the name, title and address of the owner or operator;
 - b. the address (i.e., physical location) of the affected source;
 - c. identification of the applicable emission limitations and compliance date;
 - d. a statement of whether the affected emissions unit is located at a major source or at an area source; and
 - e. a brief description of each affected emissions unit, including the type of process operation performed.
 - * the permit application may be used in lieu of the initial notification [per 40 CFR §63.830(b)(1)(iii)].

E. Testing Requirements

1. Compliance with the emission limitation(s) and operational restriction specified in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation:
93.0 lbs VOC / day

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.

- b. Emission Limitation:
16.97 tpy VOC

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C and the following equation:

$$\text{VOC (tpy)} = (\text{summation of Section C.4.c. over the previous 12-month calendar year}) / 2000$$

- c. Emission Limitation:
99 tons VOC per rolling, 12-month period for this facility*

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in Section C.

- d. Emission Limitation:
10 tons individual HAP emissions per rolling, 12-month period for this facility*

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in Sections C.

- e. Emission Limitation:
25 tons combined HAP emissions per rolling, 12-month period for this facility*

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in Sections C.

- f. Operational Limitation:
VOC content of all coatings shall not exceed 40 % VOC by volume, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance with the above limitation shall be based on the record keeping specified in section C.1. The VOC content of the coatings shall be determined using USEPA Methods 24 (for coatings) and 24A (for flexographic and rotogravure printing inks) of 40 CFR,

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- * the facility emission (or usage) limits shall include emissions (or usage) from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P002 - Corrugator for liner board to form shipping containers.	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 2.71 lbs/hour and 11.87 tpy from all paper coating activities (gluing/adhesives).
		See Section A.2. and Section B.
		The requirements of this rule also include compliance with the requirements of OAC rule (s) 3745-21-09(F); and 3745-31-05(C).
	OAC rule 3745-21-09(F)	See Section B.1
	OAC rule 3745-31-05(C) Synthetic Minor to avoid Title V and MACT	See Section A.2.a through Section A.2.c

2. Additional Terms and Conditions

- 2.a The maximum annual VOC emissions generated and VOC material used at this facility* shall not exceed 99 tons per year, based on a rolling, 12-month summation of emissions and material usage.

- 2.b** The maximum annual Hazardous Air Pollutant (HAP) emissions generated and material used at this facility* shall not exceed 10 tons per year for any single HAP and 25 tons per year for any combined HAPs, based on a rolling, 12-month summation of emissions.

2.c The daily and annual VOC emission limitations are based on the emission units' potential to emit**. Therefore, daily record keeping or reporting is not required to demonstrate compliance with these limits.

* the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.

** the potential to emit calculations are developed from the following equation:

$$\text{VOC (lbs/hr)} = [\text{press width (in)}][1 \text{ ft}/12 \text{ in}][\text{max velocity (ft/hr)}][\text{max appl. rate (lb}/1000 \text{ ft}^2)][\text{wt \% VOC}]$$

B. Operational Restrictions

1. The VOC content of coating materials for all paper coating activities (except flexographic, packaging rotogravure, and publication rotogravure printing inks, additives, and cleanup materials) shall not exceed 2.9 lbs/gal, excluding water and exempt solvents.
2. To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual HAP and VOC emissions calculated from material usage records over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month emissions for the facility.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for the facility*:
 - a. the name and identification number of each adhesive, additive, and cleanup material employed;
 - b. the weight, in pounds per month, of each adhesive, additive, and cleanup material employed as applied;
 - c. the VOC content of each adhesive, additive, and cleanup material employed, as applied, in percent by weight;
 - d. the VOC content of each coating and adhesive material employed (from all paper coating activities other than those associated with the printing operations), as applied, in lbs/gal,

excluding water and exempt solvents;

- e. the total VOC material usage and emissions from all adhesive, additive, and cleanup** materials employed calculated by summing the records of [(1.b) x (1.c)] for each ink, additive, adhesive, and cleanup materials, in pounds per month;
 - f. the rolling, 12-month summation of VOC material usage and emissions from all adhesive, additive, and cleanup materials employed, in tons;
 - g. the individual HAP and combined HAP content for each adhesive, additive, and cleanup material employed, as applied, in percent by weight;
 - h. the total individual HAP and combined HAP material usage and emissions from all adhesive, additive, and cleanup** materials employed calculated by summing the records of [(1.b) x (1.g)] for each ink, additive, adhesive, and cleanup material, in pounds per month;
 - i. the rolling, 12-month summation of each individual HAP and combined HAP material usage and emissions from all adhesive, additive, and cleanup materials employed, in tons; and
 - j. the actual operation hours for all printing presses combined, in hours per month.
- * the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.
- ** 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 C.2.
2. If a credit for recovered materials is used to demonstrate facility* compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup/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 amount of cleanup/purge material, in gallons or pounds, from the recovery drum or tank shipped off site.
 - c. the average density of the cleanup/purge material, in pounds per gallon, from the recovery

- drum or tank (if the amount is recorded in gallons);
- d. the average VOC content for the recovered cleanup/purge material, in percent by weight; and
 - e. the average VOC emissions from the recovered cleanup/purge materials (b x c), in pounds [note the average VOC emissions, in pounds, from the recovered cleanup/purge material is calculated using b x c x d if the amount is recorded in gallons].
- * the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.
3. The permit to install for this emissions unit was evaluated based on the actual 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: Styrene
TLV (mg/m³): 85.2
Maximum Hourly Emission Rate (lbs/hr): 2.71 (adhesive emission rate)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 0.1287
MAGLC (ug/m³): 2028.63
 4. 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, adhesives, 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. 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.

- 5. 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.

D. Reporting Requirements

- 1. The permittee shall notify the Cleveland Division of Air Quality (Cleveland DAQ) in writing of any monthly record showing the use of noncomplying coatings (VOC content for all paper coating activities other than printing inks, additives, and cleanup materials). The notification shall include a copy of such record and shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified.
- 2. The permittee shall submit deviation (excursion) reports which include the following information for the facility* :
 - a. an identification of each month during which the rolling, 12-month individual HAP material usage and emissions exceed 10.0 tons/yr based on a rolling, 12-month summation;
 - b. an identification of each month during which the rolling, 12-month combined HAP

material usage and emissions exceed 25.0 tons/yr based on a rolling, 12-month summation;

- c. an identification of each month during which the rolling, 12-month VOC material usage and emissions exceed 99.0 tons/yr based on a rolling, 12-month summation;
- * the facility shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.
- ** all deviation (excursion) reports shall include a copy of such record and shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified.

E. Testing Requirements

1. Compliance with the emission limitation(s) and operational restriction specified in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:
2.71 lbs of VOC / hour

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit in pounds per hour, which is determined by the following equation:

$$\text{VOC}(\text{lbs/hr}) = [W][1\text{ft}/12\text{ in}][V][A][H]$$

where,

W = press width, in inches [in]

V = max velocity, in feet per hour [ft/hr]

A = maximum application rate, in pounds per square feet [lb/1000 ft²]

H = highest VOC content, in percentage [%].

- b. Emission Limitation:
11.87 tpy VOC

Applicable Compliance Method:

The annual emission limitation for this emissions unit was established by multiplying the

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hourly emission rate by 8760 hours of operation per year and dividing by 2000 pounds per ton. Therefore, compliance with the annual emission limitation shall be assumed provided compliance is maintained with the pounds per hour limitation.

c. Emission Limitation:

99 tons VOC per rolling, 12-month period for this facility*

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in sections C.

d. Emission Limitation:

10 tons individual HAP emissions per rolling, 12-month period for this facility*

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in sections C.

e. Emission Limitation:

25 tons combined HAP emissions per rolling, 12-month period for this facility*

Applicable Compliance Method:

Compliance shall be determined based on the recordkeeping specified in sections C.

f. Operational Limitation:

2.9 lbs of VOC per gallon of coating, excluding water and exempt solvents, for all paper coating activities other than those associated with the printing operation of this emission unit.

Applicable Compliance Method:

Compliance with the above limitation shall be based on the record keeping specified in section C.1. The VOC content of the coatings shall be determined using USEPA Method 24 of 40 CFR, Part 60, Appendix A.

- * the facility emission (or usage) limits shall include emissions (or usage) from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-21-09(Y)(1)(A)
P004 - 66inch x 110 inch, McKinley Die Cutter Flexographic Printing Press (2-color) - new equipment to replace old Langston press (McKinley No. 1).	OAC rule 3745-31-05(A)(3)	OAC rule 3745-31-05(C) Synthetic Minor to avoid Title V and MACT
	40 CFR 63 Subpart KK	

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Applicable Emissions
Limitations/Control Measures

Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 135.0 lbs/day from a combination of inks, coatings, adhesives, and clean-up materials.

Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 24.63 tpy, as a rolling 12-month summation, from a combination of inks, coatings, adhesives, and clean-up materials.

See Section A.2. and Section B.

The requirements of this rule include compliance with the requirements of OAC rule (s) 3745-21-09(Y)(1)(A); and 3745-31-05(C). The requirements of this rule also include compliance with the requirements of 40 CFR 63 Subpart KK.

See Section A.2.a

See Section B.1

See Section A.2.a through Section A.2.d

2. Additional Terms and Conditions

- 2.a** In order to comply with the requirements of 40 CFR Part 63 Subpart KK, the permittee has chosen to commit to, and meet, the criteria outlined in 40 CFR 63.820(a)(2) for purposes of establishing the facility as an area source. To maintain status as an area

source under this standard, the facility* shall not exceed the following as a rolling, 12-month summation:

- i. use less than 9.1 Mg (10 tons) per each rolling, 12-month period of each HAP at the facility, including materials used for source categories or purposes other than printing and publishing; and
 - ii. use less than 22.7 Mg (25 tons) per each rolling, 12-month period of any combination of HAP at the facility, including materials used for source categories or purposes other than printing and publishing.
- 2.b** The maximum annual VOC emissions generated and VOC material used at this facility* shall not exceed 99 tons per year, based on a rolling, 12-month summation of emissions and material usage.
- 2.c** The maximum annual Hazardous Air Pollutant (HAP) emissions generated at this facility* shall not exceed 10 tons per year for any single HAP and 25 tons per year for any combined HAPs, based on a rolling, 12-month summation of emissions.
- 2.d** The daily and annual VOC emission limitations are based on the emission units' potential to emit**. Therefore, daily record keeping or reporting is not required to demonstrate compliance with these limits.

* the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.

** the potential to emit calculations are developed from the Printing Industry of Ohio's guidance document titled: "A Self Help Guide to Environmentally Sound Printing Operations".

B. Operational Restrictions

1. The VOC content of all coatings and inks used in this emissions unit shall not exceed forty per cent VOC by volume, excluding water and exempt solvents.
2. To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual HAP and VOC emissions calculated from material usage records over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month emissions for the facility.

C. Monitoring and/or Recordkeeping Requirements

Intern**PTI A****Issued: 8/12/2004**Emissions Unit ID: **P004**

1. The permittee shall collect and record the VOC content of each coating in percent VOC by volume, excluding water and exempt solvents, as applied [calculated in accordance with the equation specified in paragraph (B) of OAC rule 3745-21-10].
2. The permittee shall collect and record the following information each month for all flexographic, packaging rotogravure, and publication rotogravure printing lines*:
 - a. the name and identification number of each ink, additive, adhesive, and cleanup material employed;
 - b. the weight, in pounds per month, of each ink, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total VOC material usage and emissions from all ink, additive, adhesive, and cleanup** materials employed calculated by summing the records of [(2.b) x (2.c)] for each ink, additive, adhesive, and cleanup materials, in pounds per month;
 - e. the rolling, 12-month summation of VOC material usage and emissions from all ink, additive, adhesive, and cleanup materials employed, in tons; and
 - f. the actual operation hours for all printing presses combined, in hours per month.

* flexographic, packaging rotogravure, and publication rotogravure printing lines for the facility shall include the following units: K001, K002, P004, P005, and all future flexographic, packaging rotogravure, and publication rotogravure printing lines proposed for this location.

** 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 the cleanup/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 C.5.
3. The permittee shall collect and record the following information each month for the facility*:
 - a. the name and identification number of each ink, additive, adhesive, and cleanup material employed;

- b. the weight, in pounds per month, of each ink, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total VOC material usage and emissions from all ink, additive, adhesive, and cleanup** materials employed calculated by summing the records of [(3.b) x (3.c)] for each ink, additive, adhesive, and cleanup materials, in pounds per month;
 - e. the rolling, 12-month summation of VOC material usage and emissions from all ink, additive, adhesive, and cleanup materials employed, in tons;
 - f. the individual HAP and combined HAP content for each ink, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - g. the total individual HAP and combined HAP material usage and emissions from all ink, additive, adhesive, and cleanup** materials employed calculated by summing the records of [(3.b) x (3.f)] for each ink, additive, adhesive, and cleanup material, in pounds per month; and
 - h. the rolling, 12-month summation of each individual HAP and combined HAP material usage and emissions from all ink, additive, adhesive, and cleanup materials employed, in tons.
- * the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.
- ** 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 the cleanup/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 C.5.
4. The permittee shall collect and record the following information for this emission unit each month:
- a. the actual monthly press operation hours, in hours per month;
 - b. the number of days the press operated during the month;
 - c. the monthly VOC emissions from printing activities, calculated as [(2.d.) x (most recent

product per press allocation factor*]), in pounds per month; and

d. the average daily VOC emissions, calculated as [(4.c.) / (4.b.)].

* the 'product per press allocation factor' is calculated following the guidelines outlined in the Printing Industry of Ohio (PIO's) resource document titled "A Self Help Guide to Environmentally Sound Printing Operations" and is based on typical material usage rates and print capacity. The allocation factors at the time of this permit are as follows:

K001 = 0.242966454	K002 = 0.128451311	P004 = 0.220592942
P005 = 0.220592942	P008 = 0.187396352	

5. If a credit for recovered materials is used to demonstrate facility* compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup/purge materials and the recovery drum, or tank, serving this emissions unit:
- the date the materials from the recovery drum or tank were shipped off site;
 - the amount of cleanup/purge material, in gallons or pounds, from the recovery drum or tank shipped off site;
 - the average density of the cleanup/purge material, in pounds per gallon, from the recovery drum or tank (if the amount is recorded in gallons);
 - the average VOC content for the recovered cleanup/purge material, in percent by weight; and
 - the average VOC emissions from the recovered cleanup/purge materials [(5.b.) x (5.d.)], in pounds. Note the average VOC emissions, in pounds, from the recovered cleanup/purge material is calculated as [(5.b.) x (5.c.) x (5.d.)] if the material amount is recorded in gallons.
- * the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.
6. The permit to install for this emissions unit was evaluated based on the actual 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"

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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: Methyl Alcohol
TLV (mg/m³): 262.09
Maximum Hourly Emission Rate (lbs/hr): 5.62 (ink)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 182.4177
MAGLC (ug/m³): 6240.14
 - b. Pollutant: Methyl Isobutyl Ketone
TLV (mg/m³): 204.83
Maximum Hourly Emission Rate (lbs/hr): 5.62 (ink)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 28.7624
MAGLC (ug/m³): 4876.81
7. 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, adhesives, 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. 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.

8. 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.

D. Reporting Requirements

1. The permittee shall notify the Cleveland Division of Air Quality (Cleveland DAQ) in writing of any monthly record showing the use of noncomplying coatings (40% VOC by Volume). The notification shall include a copy of such record and shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified.
2. The permittee shall notify the Cleveland Division of Air Quality (Cleveland DAQ) in writing of any monthly record showing that the average daily emissions limitation for this emissions unit has been exceeded. The notification shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified and shall include the following:
 - a. a copy of any such record;
 - b. an identification of the probable cause for such deviation; and
 - c. any corrective actions or preventative measures which have been, or will be taken, to correct the situation.
3. The permittee shall submit deviation (excursion) reports which include the following information for the facility* :
 - a. an identification of each month during which the rolling, 12-month individual HAP material usage and emissions exceed 10.0 tons/yr based on a rolling, 12-month summation;
 - b. an identification of each month during which the rolling, 12-month combined HAP material usage and emissions exceed 25.0 tons/yr based on a rolling, 12-month summation;

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- c. an identification of each month during which the rolling, 12-month VOC material usage and emissions exceed 99.0 tons/yr based on a rolling, 12-month summation;

The deviation (excursion) report shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified and shall include a copy of any such record; an identification of the probable cause for such deviation; and any corrective actions or preventative measures which have been, or will be taken, to correct the situation.

- * the facility shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.
4. As required by 40 CFR 63.830(b)(1), the permittee shall submit to the Cleveland DAQ an initial notification report* no later than May 30, 1998, that contains the following information:
- a. the name, title and address of the owner or operator;
 - b. the address (i.e., physical location) of the affected source;
 - c. identification of the applicable emission limitations and compliance date;
 - d. a statement of whether the affected emissions unit is located at a major source or at an area source; and
 - e. a brief description of each affected emissions unit, including the type of process operation performed.
- * the permit application may be used in lieu of the initial notification [per 40 CFR §63.830(b)(1)(iii)].

E. Testing Requirements

1. Compliance with the emission limitation(s) and operational restriction specified in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):
- a. Emission Limitation:
135.0 lbs VOC / day
 - Applicable Compliance Method:
Compliance shall be determined based upon the record keeping specified in Section C.
 - b. Emission Limitation:
24.63 tpy VOC

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C and the following equation:

$$\text{VOC (tpy)} = (\text{summation of Section C.4.c over the previous 12-month calendar year}) / 2000$$

- c. Emission Limitation:
99 tons VOC per rolling, 12-month period for this facility*
- Applicable Compliance Method:
Compliance shall be determined based on the recordkeeping specified in Section C.
- d. Emission Limitation:
10 tons individual HAP emissions per rolling, 12-month period for this facility*
- Applicable Compliance Method:
Compliance shall be determined based on the recordkeeping specified in Sections C.
- e. Emission Limitation:
25 tons combined HAP emissions per rolling, 12-month period for this facility*
- Applicable Compliance Method:
Compliance shall be determined based on the recordkeeping specified in Sections C.
- f. Operational Limitation:
VOC content of all coatings shall not exceed 40 % VOC by volume, excluding water and exempt solvents.
- Applicable Compliance Method:
Compliance with the above limitation shall be based on the record keeping specified in section C.1. The VOC content of the coatings shall be determined using USEPA Methods 24 (for coatings) and 24A (for flexographic and rotogravure printing inks) of 40 CFR, Part 60, Appendix A.
- * the facility emission (or usage) limits shall include emissions (or usage) from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P005 - 66inch x 110 inch, McKinley Die Cutter Flexographic Printing Press (2-color) - new equipment to replace old Bobst 210, which did not have printing capability. This will provide operational flexibility (McKinley No. 2).	OAC rule 3745-31-05(A)(3)	<p>Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 135.0 lbs/day from a combination of inks, coatings, adhesives, and clean-up materials.</p> <p>Volatile organic compound (VOC) emissions from this emissions unit shall not exceed 24.63 tpy, as a rolling 12-month summation, from a combination of inks, coatings, adhesives, and clean-up materials.</p> <p>See Section A.2. and Section B.</p> <p>The requirements of this rule include compliance with the requirements of OAC rule (s) 3745-21-09(Y)(1)(A); and 3745-31-05(C). The requirements of this rule also include compliance with the requirements of 40 CFR 63 Subpart KK.</p>
	40 CFR 63 Subpart KK	See Section A.2.a
	OAC rule 3745-21-09(Y)(1)(A)	See Section B.1
	OAC rule 3745-31-05(C) Synthetic Minor to avoid Title V and MACT	See Section A.2.a through Section A.2.d

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2. Additional Terms and Conditions

- 2.a** In order to comply with the requirements of 40 CFR Part 63 Subpart KK, the permittee has chosen to commit to, and meet, the criteria outlined in 40 CFR 63.820(a)(2) for purposes of establishing the facility as an area source. To maintain status as an area source under this standard, the facility* shall not exceed the following as a rolling, 12-month summation:
- i. use less than 9.1 Mg (10 tons) per each rolling, 12-month period of each HAP at the facility, including materials used for source categories or purposes other than printing and publishing; and
 - ii. use less than 22.7 Mg (25 tons) per each rolling, 12-month period of any combination of HAP at the facility, including materials used for source categories or purposes other than printing and publishing.
- 2.b** The maximum annual VOC emissions generated and VOC material used at this facility* shall not exceed 99 tons per year, based on a rolling, 12-month summation of emissions and material usage.
- 2.c** The maximum annual Hazardous Air Pollutant (HAP) emissions generated at this facility* shall not exceed 10 tons per year for any single HAP and 25 tons per year for any combined HAPs, based on a rolling, 12-month summation of emissions.
- 2.d** The daily and annual VOC emission limitations are based on the emission units' potential to emit**. Therefore, daily record keeping or reporting is not required to demonstrate compliance with these limits.
- * the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.
- ** the potential to emit calculations are developed from the Printing Industry of Ohio's guidance document titled: "A Self Help Guide to Environmentally Sound Printing Operations".

B. Operational Restrictions

1. The VOC content of all coatings and inks used in this emissions unit shall not exceed forty per

cent VOC by volume, excluding water and exempt solvents.

2. To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual HAP and VOC emissions calculated from material usage records over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month emissions for the facility.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the VOC content of each coating in percent VOC by volume, excluding water and exempt solvents, as applied [calculated in accordance with the equation specified in paragraph (B) of OAC rule 3745-21-10].
2. The permittee shall collect and record the following information each month for all flexographic, packaging rotogravure, and publication rotogravure printing lines*:
 - a. the name and identification number of each ink, additive, adhesive, and cleanup material employed;
 - b. the weight, in pounds per month, of each ink, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total VOC material usage and emissions from all ink, additive, adhesive, and cleanup** materials employed calculated by summing the records of [(2.b) x (2.c)] for each ink, additive, adhesive, and cleanup materials, in pounds per month;
 - e. the rolling, 12-month summation of VOC material usage and emissions from all ink, additive, adhesive, and cleanup materials employed, in tons; and
 - f. the actual operation hours for all printing presses combined, in hours per month.

* flexographic, packaging rotogravure, and publication rotogravure printing lines for the facility shall include the following units: K001, K002, P004, P005, and all future flexographic, packaging rotogravure, and publication rotogravure printing lines proposed for this location.

** 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 the cleanup/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 C.5.

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3. The permittee shall collect and record the following information each month for the facility*:
 - a. the name and identification number of each ink, additive, adhesive, and cleanup material employed;
 - b. the weight, in pounds per month, of each ink, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total VOC material usage and emissions from all ink, additive, adhesive, and cleanup** materials employed calculated by summing the records of [(3.b) x (3.c)] for each ink, additive, adhesive, and cleanup materials, in pounds per month;
 - e. the rolling, 12-month summation of VOC material usage and emissions from all ink, additive, adhesive, and cleanup materials employed, in tons;
 - f. the individual HAP and combined HAP content for each ink, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - g. the total individual HAP and combined HAP material usage and emissions from all ink, additive, adhesive, and cleanup** materials employed calculated by summing the records of [(3.b) x (3.f)] for each ink, additive, adhesive, and cleanup material, in pounds per month; and
 - h. the rolling, 12-month summation of each individual HAP and combined HAP material usage and emissions from all ink, additive, adhesive, and cleanup materials employed, in tons.
- * the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.
- ** 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 the cleanup/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 C.5.

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4. The permittee shall collect and record the following information for this emission unit each month:
- a. the actual monthly press operation hours, in hours per month;
 - b. the number of days the press operated during the month;
 - c. the monthly VOC emissions from printing activities, calculated as [(2.d.) x (most recent product per press allocation factor*)], in pounds per month; and
 - d. the average daily VOC emissions, calculated as [(4.c.) / (4.b.)].

* the 'product per press allocation factor' is calculated following the guidelines outlined in the Printing Industry of Ohio (PIO's) resource document titled "A Self Help Guide to Environmentally Sound Printing Operations" and is based on typical material usage rates and print capacity. The allocation factors at the time of this permit are as follows:

K001 = 0.242966454	K002 = 0.128451311	P004 = 0.220592942
P005 = 0.220592942	P008 = 0.187396352	

5. If a credit for recovered materials is used to demonstrate facility* compliance and/or used in calculations for emission reports, the permittee shall maintain the following records for the recovered cleanup/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;
 - b. the amount of cleanup/purge material, in gallons or pounds, from the recovery drum or tank shipped off site;
 - c. the average density of the cleanup/purge material, in pounds per gallon, from the recovery drum or tank (if the amount is recorded in gallons);
 - d. the average VOC content for the recovered cleanup/purge material, in percent by weight; and
 - e. the average VOC emissions from the recovered cleanup/purge materials [(5.b.) x (5.d.)], in pounds. Note the average VOC emissions, in pounds, from the recovered cleanup/purge material is calculated as [(5.b.) x (5.c.) x (5.d.)] if the material amount is recorded in gallons.
- * the facility emission limits shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.

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6. The permit to install for this emissions unit was evaluated based on the actual 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:

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- a. Pollutant: Methyl Alcohol
TLV (mg/m³): 262.09
Maximum Hourly Emission Rate (lbs/hr): 5.62 (ink)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 182.4177
MAGLC (ug/m³): 6240.14
 - b. Pollutant: Methyl Isobutyl Ketone
TLV (mg/m³): 204.83
Maximum Hourly Emission Rate (lbs/hr): 5.62 (ink)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 28.7624
MAGLC (ug/m³): 4876.81
7. 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, adhesives, 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. 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.
8. 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.);

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- 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.

D. Reporting Requirements

1. The permittee shall notify the Cleveland Division of Air Quality (Cleveland DAQ) in writing of any monthly record showing the use of noncomplying coatings (40% VOC by Volume). The notification shall include a copy of such record and shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified.
2. The permittee shall notify the Cleveland Division of Air Quality (Cleveland DAQ) in writing of any monthly record showing that the average daily emissions limitation for this emissions unit has been exceeded. The notification shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified and shall include the following:
 - a. a copy of any such record;
 - b. an identification of the probable cause for such deviation; and
 - c. any corrective actions or preventative measures which have been, or will be taken, to correct the situation.
3. The permittee shall submit deviation (excursion) reports which include the following information for the facility* :
 - a. an identification of each month during which the rolling, 12-month individual HAP material usage and emissions exceed 10.0 tons/yr based on a rolling, 12-month summation;
 - b. an identification of each month during which the rolling, 12-month combined HAP material usage and emissions exceed 25.0 tons/yr based on a rolling, 12-month summation;
 - c. an identification of each month during which the rolling, 12-month VOC material usage and emissions exceed 99.0 tons/yr based on a rolling, 12-month summation;

The deviation (excursion) report shall be sent to the Cleveland DAQ within 30 days following the end of the calendar month during which they were identified and shall include a copy of any such

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record; an identification of the probable cause for such deviation; and any corrective actions or preventative measures which have been, or will be taken, to correct the situation.

* the facility shall include emissions from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.

4. As required by 40 CFR 63.830(b)(1), the permittee shall submit to the Cleveland DAQ an initial notification report* no later than May 30, 1998, that contains the following information:

- a. the name, title and address of the owner or operator;
- b. the address (i.e., physical location) of the affected source;
- c. identification of the applicable emission limitations and compliance date;
- d. a statement of whether the affected emissions unit is located at a major source or at an area source; and
- e. a brief description of each affected emissions unit, including the type of process operation performed.

* the permit application may be used in lieu of the initial notification [per 40 CFR §63.830(b)(1)(iii)].

E. Testing Requirements

1. Compliance with the emission limitation(s) and operational restriction specified in Section A.1 of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:
135.0 lbs VOC / day

Applicable Compliance Method:
Compliance shall be determined based upon the record keeping specified in Section C.

b. Emission Limitation:
24.63 tpy VOC

Applicable Compliance Method:
Compliance shall be determined based upon the record keeping specified in Section C and the following equation:

$$\text{VOC (tpy)} = (\text{summation of Section C.4.c over the previous 12-month calendar year}) /$$

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- c. Emission Limitation:
99 tons VOC per rolling, 12-month period for this facility*
- Applicable Compliance Method:
Compliance shall be determined based on the recordkeeping specified in Section C.
- d. Emission Limitation:
10 tons individual HAP emissions per rolling, 12-month period for this facility*
- Applicable Compliance Method:
Compliance shall be determined based on the recordkeeping specified in Sections C.
- e. Emission Limitation:
25 tons combined HAP emissions per rolling, 12-month period for this facility*
- Applicable Compliance Method:
Compliance shall be determined based on the recordkeeping specified in Sections C.
- f. Operational Limitation:
VOC content of all coatings shall not exceed 40 % VOC by volume, excluding water and exempt solvents.
- Applicable Compliance Method:
Compliance with the above limitation shall be based on the record keeping specified in section C.1. The VOC content of the coatings shall be determined using USEPA Methods 24 (for coatings) and 24A (for flexographic and rotogravure printing inks) of 40 CFR, Part 60, Appendix A.
- * the facility emission (or usage) limits shall include emissions (or usage) from the following units: K001, K002, P002, P004, P005, P006, and all future emissions units proposed for this location unless the facility obtains the status of a major source and meets all applicable regulatory requirements for such status.

F. Miscellaneous Requirements

None

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

A. Applicable Emissions Limitations and/or Control Requirements

- 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>
P006 - Cyclone Trim System consisting of a hogger, cyclone, and bailer.	OAC rule 3745-31-05(A)(3)	Particulate Emissions (PE) from this emissions unit shall not exceed 2.89 lbs/hour and 12.65 tpy.
		Visible particulate emissions from any of the stacks associated with the cyclone shall not exceed ten (10) percent opacity, as a six-minute average.
		The requirements of this rule also include compliance with the requirements of OAC rule (s) 3745-17-07(A)(1); 3745-17-11.
	OAC rule 3745-17-07(A)(1)	The visible emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-11	The visible emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

2.a None.

B. Operational Restrictions

1. The cyclone operating parameters should be maintained within specified range by the manufacturer's recommendation.
2. The permittee shall only use this cyclone for the control of cardboard material originating from the collection system.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the total operating time of the cyclone, in hours, each month.
2. The permittee shall perform weekly checks, when the emissions unit is in operation and when weather conditions allow, for any visible particulate emissions from this cyclone. The presence or absence of any visible emissions from the cyclone stack shall be noted in an operations log. If visible emissions from the cyclone stack are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

The above-mentioned inspections shall be performed during representative, normal operating conditions.

If no visible emissions are observed during the weekly checks for the first quarter, inspection frequency may be changed to a monthly basis. If any visible emissions from this unit are recorded during the subsequent monthly observations, the facility shall revert back to the weekly monitoring until further notice. The permittee may, upon receipt of written approval from the Cleveland Division of Air Quality, modify the above-mentioned inspection frequencies if operating experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

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D. Reporting Requirements

1. The permittee shall submit annual written reports that (a) identify all days during which any visible particulate emissions were observed from the cyclone stack; and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Cleveland Division of Air Quality (Cleveland DAQ) by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.1 of the terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitations
2.89 lb PE/hr

Applicable Compliance Method

Compliance with the hourly emission limitations shall be determined by using the following formula utilizing the cyclone controlled grain loading, and its volumetric flow rate:

$$\text{lbs PM/hr} = [G^*][V][C][60 \text{ min/hr}]$$

where,

G = controlled grain loading, 0.00815 grains/cubic feet*

V = volumetric flow rate, in cubic feet per minute

C = conversion factor, [1 lb / 7,000 grains]

- * This controlled emission factor has been specified by the manufacturer, Ohio Blow Pipe.

If required, compliance shall be determined through stack testing in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A, and the procedures in OAC rule 3745-17-03(B)(10).

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland Division of Air Quality (CDAQ).

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the CDAQ. The "Intent to Test" notification shall describe in detail the

proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the CDAQ's refusal to accept the results of the emission test(s).

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

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

- b. Emission Limitation
12.65 tpy PE

Applicable Compliance Method

The annual limit is based on the allowable hourly emission limit (2.89 lb PE/hr) multiplied by the maximum possible operating hours (8,760 hr/yr), and divided by 2,000 (lbs/ton). Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

- c. Emission Limitation
Visible particulate emissions from the exhaust stack shall not exceed 10% opacity as a 6-minute average, except as provided by rule.

Applicable Compliance Method

If required, compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Test Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

F. Miscellaneous Requirements

None