

Synthetic Minor Determination and/or **Netting Determination**

Permit To Install **13-04408**

A. Source Description

Avery Dennison - North American Label Division is a commercial manufacturer of automotive label products located in Cleveland Ohio. The facility is currently operating under multiple synthetic minor permits and they wish to install a new printing press at this location. In conjunction with the new permit application, the facility is applying for a facility-wide synthetic minor permit and FESOP. The goal is to maximize operational flexibility while minimizing the recordkeeping burden on the facility. Avery Dennison proposes to demonstrate regulatory compliance by calculating the facility-wide emissions using a 12-month rolling summation derived from materials usage while setting the specific emissions units at their potential to emit.

Facility operations at this site include 7 flexographic printing presses: K002 & K003 (PTI #13-03704), K004 (PTI #13-04072), K005 (proposed new unit), and P004, P005, P009, & P012 (all under PTI #13-03231). There are also other insignificant/deminimus/exempted emissions units located at this facility.

B. Facility Emissions and Attainment Status

Avery Dennison Corp. - Automotive Products Division falls into the Title V major source category based on the facility's potential emissions (greater than 100 tpy VOC emissions and greater than 10 tpy individual HAP); however, the synthetic minor restrictions outlined in this permit would limit the facility emissions below the Title V threshold. Facility-wide monitoring will be used to verify compliance with the facility-wide emission limits. Cuyahoga County is designated as non-attainment for ozone (8-hr standard).

C. Source Emissions

The facility sources have a combined potential to emit (PTE) of more than 100 tpy VOC (approximately 143 tpy) resulting in the Title V applicability. The permittee has chosen to restrict the facility-wide VOC emissions (99.9 tpy VOC) and HAP emissions (9.9 tpy any single HAP and 24.9 tpy for all combined HAPs) to below the major source thresholds through a synthetic minor permit. They propose to meet these requirements by self-regulating the volatile organic material usage, utilizing low VOC content materials where they are available, and verifying the facility emissions through recording keeping and a 12-month summation calculation.

The potential to emit calculations, developed from a joint effort between the facility and the Cleveland Division of Air Quality (Cleveland DAQ), reflect the presumed inherent physical limitations. The approach looks at facility data to derive a press allocation based on historical operating parameters, the facility-wide material usage restriction (148 tons) as found in OAC Rule 3745-21-09(Y)(2)(b), and adjustment factors to provide for operational flexibility (the error as derived from historical variability in the facility allocation). The result of these calculations identify the theoretical PTE (short term and annual) of each emission unit based on inherent physical limitations at the facility.

D. Conclusion

Avery Dennison has chosen to limit the production capabilities of this facility through the use of a synthetic minor permit. The facility-wide restrictions will include 99.9 tpy VOC emissions, 9.9 tpy single HAP emissions, and 24.9 tpy combined HAP emissions. Avery plans to demonstrate compliance with these emission limits by calculating the facility wide emissions using a 12-month summation derived from material usage and chemical constituency. The Cleveland Local Air Agency (CLAA) recommends approval of this permit because a review of the historical facility material usage data (CY 2003) verifies that the actual facility emissions are significantly lower than the theoretical potential emissions.



State of Ohio Environmental Protection Agency

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

CERTIFIED MAIL



Street Address:

Mailing Address:

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

Lazarus Gov.
Center

Application No: 13-04408

Fac ID: 1318001435

DATE: 12/21/2004

Avery Dennison North America Label Div
Andrew Sawan
15939 Industrial Parkway
Cleveland, OH 44135

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$900** will be due. Please do not submit any payment now.

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. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

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

CC: USEPA

CLAA

PA

CUYAHOGA COUNTY

PUBLIC NOTICE
ISSUANCE OF DRAFT PERMIT TO INSTALL **13-04408** FOR AN AIR CONTAMINANT SOURCE FOR
Avery Dennison North America Label Div

On 12/21/2004 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Avery Dennison North America Label Div**, located at **15939 Industrial Parkway, Cleveland, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 13-04408:

Addition of new press (K005) coupled with request for facility wide Synthetic Minor limits on existing printing operations -- P004, P005, P009, P012, K002, K003, and K004.

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

David Hearne, Cleveland City Health Department, Division of the Environment, 1925 St. Clair Avenue,
Cleveland, OH 44114 [(216)664-2324]



**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT PERMIT TO INSTALL 13-04408

Application Number: 13-04408
Facility ID: 1318001435
Permit Fee: **To be entered upon final issuance**
Name of Facility: Avery Dennison North America Label Div
Person to Contact: Andrew Sawan
Address: 15939 Industrial Parkway
Cleveland, OH 44135

Location of proposed air contaminant source(s) [emissions unit(s)]:
**15939 Industrial Parkway
Cleveland, Ohio**

Description of proposed emissions unit(s):
Addition of new press (K005) coupled with request for facility wide Synthetic Minor limits on existing printing operations -- P004, P005, P009, P012, K002, K003, and K004.

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

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

Avery Dennison North America Label Div
PTI Application: 13-04408

Facility ID: 1318001435

Issued: To be entered upon final issuance

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

Issued: To be entered upon final issuance

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

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

10. Public Disclosure

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

11. Applicability

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

12. Best Available Technology

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

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.

8

Avery Dennison North America Label Div
PTI Application: 13-04408
Issued: To be entered upon final issuance

Facility ID: 1318001435

Issued: To be entered upon final issuance

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	99.9
Individual HAPs	9.9
Combined HAPs	24.9

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>
K002 - Press no. 340 (a.k.a. Arsona Press no. 680). Narrow web (<18 inches) continuous printing operation with 6 print stations using flexographic and/or rotary screen presses to transfer inked images to a substrate.	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions for this emissions unit shall not exceed 18.84 lbs VOC/hour and 15.36 tpy* from a combination of inks, coatings, adhesives, and clean-up material.
Terms in this permit supercede those identified in PTI #13-03704 issued 09/22/00.		* as a 12-month rolling summation See A.2.a. and A.2.b.
Modified	OAC rule 3745-21-09(Y)(2)(b)	The requirements of this rule also include compliance with the requirements of OAC rule(s) 3745-21-09(Y)(2)(b); and 3745-35-07(B).
	OAC rule 3745-35-07(B) Synthetic Minor to avoid Title V	The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year. Volatile organic compound (VOC) emissions from the facility shall not exceed 99.9 tons per rolling 12-month period.

Issued: To be entered upon final issuance

See A.2.a., A.2.b., B.1., and B.2.

2. Additional Terms and Conditions

2.a The maximum annual Hazardous Air Pollutant (HAP) emissions generated at this facility shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based on a rolling, 12-month summation of emissions.

2.b The hourly and annual VOC emission limitations are based on the emissions unit's potential to emit*. As such, no specific emission unit emissions monitoring and/or recordkeeping and reporting requirements are necessary in order to demonstrate compliance with these emissions limits.

* The potential to emit calculations, developed from a joint effort between the facility and the Cleveland Division of Air Quality (Cleveland DAQ), reflect the presumed inherent physical limitations through a press allocation of the material usage restriction (148 tons) as found in OAC Rule 3745-21-09(Y)(2)(b).

B. Operational Restrictions

1. The maximum annual volatile organic material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 99.9 tons, based upon a rolling, 12-month summation of the volatile organic material figures.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual volatile organic material usage over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month usage for the facility.

2. The maximum annual HAPs material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon a rolling, 12-month summation of the HAPs material usage figures.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual HAP material usage over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month usage 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 ink, coating, additive, adhesive, and cleanup material employed;
 - b. the weight, in pounds or tons per month, of each ink, coating, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, coating, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total volatile organic material usage and VOC emissions from all ink, additive, adhesive, and cleanup materials employed calculated by summing the records of [(1.b) x (1.c)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month;
 - e. the rolling, 12-month summation of volatile organic material usage and VOC emissions from all ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons;
 - f. the individual HAP and combined HAP content for each ink, coating, 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 [(1.b) x (1.f)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month; and
 - h. the rolling, 12-month summation of each individual HAP and combined HAP material usage and emissions from all ink, coating, additive, adhesive, and cleanup materials employed, in pounds or tons.
 - i. the rolling, 12-month summation of ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons.
- * the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.
- ** 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.3.

2. 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; and
 - b. the rolling, 12-month summation of the operational press hours.

The permittee shall use this data to verify, upon request by the Cleveland DAQ, that the annual press allocation of material usage and emissions is valid.

3. 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 [(3.b.) x (3.d.)], in pounds. Note the average VOC emissions, in pounds, from the recovered cleanup/purge material is calculated as [(3.b.) x (3.c.) x (3.d.)] if the material amount is recorded in gallons.

* the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

4. 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: Ethanol
TLV (mg/m³): 1,884.25
Maximum Hourly Emission Rate (lbs/hr): 18.84
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 5,041.96
MAGLC (ug/m³): 44,863.18
 - b. Pollutant: N-Propyl Alcohol
TLV (mg/m³): 491.53
Maximum Hourly Emission Rate (lbs/hr): 18.84
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 418.55
MAGLC (ug/m³): 11,703.18
 - c. Pollutant: Isopropyl Alcohol
TLV (mg/m³): 983.07
Maximum Hourly Emission Rate (lbs/hr): 18.84
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 530.01
MAGLC (ug/m³): 23,406.37
 - d. Pollutant: n-Propyl Acetate
TLV (mg/m³): 835.42
Maximum Hourly Emission Rate (lbs/hr): 18.84
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 307.09
MAGLC (ug/m³): 19,890.93
 - e. Pollutant: Ethyl Acetate
TLV (mg/m³): 1,441.31
Maximum Hourly Emission Rate (lbs/hr): 5.46
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 3,298.38
MAGLC (ug/m³): 34,316.88
5. 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

Issued: To be entered upon final issuance

(ACGIH)," than the lowest TLV value previously modeled;

- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and,
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

- 6. 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 that the rolling, 12-month summation of coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility exceeded one hundred forty-eight tons. 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* :

Avery Dennison North America Label Div

PTI Application: 13-04408

Facility ID: 1318001435

Issued

Emissions Unit ID: **K002**

- a. an identification of each month during which the rolling, 12-month individual HAP material usage and emissions exceed 9.9 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 24.9 tons/yr based on a rolling, 12-month summation;
- c. an identification of each month during which the rolling, 12-month volatile organic material usage and VOC emissions exceed 99.9 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 emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

Issued: To be entered upon final issuance**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:

18.84 lbs VOC/hour from a combination of ink, coating, additive, adhesive, and cleanup material.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

Press Allocation = (Annual Press Hours, based on CY-2003 data) / (Total Facility Press Hours, based on CY-2003 data)

Annual VOC Emissions By Press = (Facility Material Restriction) * (Press Allocation) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data)

Short Term VOC Emissions (average lb/hr) = (Annual VOC Emissions By Press) / (Annual Mean Press Hours)

PTI Limit Annual VOC Emissions By Press w/ SF # 1 = (Facility Material Restriction) * (Press Allocation, based on CY-2003 data) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data) * (SF #1)

PTI Limit Short Term VOC Emissions w/ SF # 2 = [(CY 2003 VOC Emissions by Press) / (CY2003 Mean Press Hours)] * (SF # 2)

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 % ; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated

Emissions Unit ID: **K002**

with the VOC content of the coatings applied on a specific press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 % ; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

b. Emission Limitation:

15.36 tons VOC/year for K001 from a combination of inks, coatings and adhesives, as a 12-month rolling summation.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

Press Allocation = (Annual Press Hours, based on CY-2003 data) / (Total Facility Press Hours, based on CY-2003 data)

Annual VOC Emissions By Press = (Facility Material Restriction) * (Press Allocation) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data)

PTI Limit Annual VOC Emissions By Press w/ SF # 1 = (Facility Material Restriction) * (Press Allocation, based on CY-2003 data) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data) * (SF #1)

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated with the VOC content of the coatings applied on a specific press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in

Issued: To be entered upon final issuance

product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

- c. Emission Limitation:
99.9 tons VOC per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- d. **Emission Limitation:**
9.9 tons individual HAP per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- e. **Emission Limitation:**
24.9 tons combined HAPs per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- f. **Operational Limitation:**
The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.1.

F. Miscellaneous Requirements

1. The terms and conditions of this permit supercede the terms and conditions of PTI #13-03704 issued September 22, 2000.
2. The following terms and conditions are federally enforceable: A, B, C.1 through C.3, D, and E.

Issued: **To be entered upon final issuance**

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>
<p>K003 - Press no. 341 (a.k.a. Arsona Press no. 681). Narrow web (<18 inches) continuous printing operation with 6 print stations using flexographic and/or rotary screen presses to transfer inked images to a substrate.</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>Volatile organic compound (VOC) emissions for this emissions unit shall not exceed 22.13 lbs VOC/hour and 18.04 tpy* from a combination of inks, coatings, adhesives, and clean-up material.</p>
<p>Terms in this permit supercede those identified in PTI #13-03704 issued 09/22/00.</p>		<p>* as a 12-month rolling summation See A.2.a. and A.2.b.</p>
<p>Modified</p>	<p>OAC rule 3745-21-09(Y)(2)(b)</p>	<p>The requirements of this rule also include compliance with the requirements of OAC rule(s) 3745-21-09(Y)(2)(b); and 3745-35-07(B). The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year.</p>
	<p>OAC rule 3745-35-07(B) Synthetic Minor to avoid Title V</p>	<p>Volatile organic compound (VOC) emissions from the facility shall not exceed 99.9 tons per rolling 12-month</p>

Issued: To be entered upon final issuance
period.

See A.2.a., A.2.b., B.1., and B.2.

2. Additional Terms and Conditions

- 2.a** The maximum annual Hazardous Air Pollutant (HAP) emissions generated at this facility shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based on a rolling, 12-month summation of emissions.
- 2.b** The hourly and annual VOC emission limitations are based on the emissions unit's potential to emit*. As such, no specific emission unit emissions monitoring and/or recordkeeping and reporting requirements are necessary in order to demonstrate compliance with these emissions limits.

* The potential to emit calculations, developed from a joint effort between the facility and the Cleveland Division of Air Quality (Cleveland DAQ), reflect the presumed inherent physical limitations through a press allocation of the material usage restriction (148 tons) as found in OAC Rule 3745-21-09(Y)(2)(b).

B. Operational Restrictions

1. The maximum annual volatile organic material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 99.9 tons, based upon a rolling, 12-month summation of the volatile organic material figures.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual volatile organic material usage over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month usage for the facility.

2. The maximum annual HAPs material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon a rolling, 12-month summation of the HAPs material usage figures.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual HAP material usage over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month usage 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 ink, coating, additive, adhesive, and cleanup material employed;
 - b. the weight, in pounds or tons per month, of each ink, coating, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, coating, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total volatile organic material usage and VOC emissions from all ink, additive, adhesive, and cleanup materials employed calculated by summing the records of [(1.b) x (1.c)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month;
 - e. the rolling, 12-month summation of volatile organic material usage and VOC emissions from all ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons;
 - f. the individual HAP and combined HAP content for each ink, coating, 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 [(1.b) x (1.f)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month; and
 - h. the rolling, 12-month summation of each individual HAP and combined HAP material usage and emissions from all ink, coating, additive, adhesive, and cleanup materials employed, in pounds or tons.
 - i. the rolling, 12-month summation of ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons.
- * the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.
- ** 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

Issued: To be entered upon final issuance

recycle, recovery, and/or disposal at an outside facility) shall be maintained as required in Section C.3.

2. 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; and
 - b. the rolling, 12-month summation of the operational press hours.

The permittee shall use this data to verify, upon request by the Cleveland DAQ, that the annual press allocation of material usage and emissions is valid.

3. 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 [(3.b.) x (3.d.)], in pounds. Note the average VOC emissions, in pounds, from the recovered cleanup/purge material is calculated as [(3.b.) x (3.c.) x (3.d.)] if the material amount is recorded in gallons.

* the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

4. 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

Emissions Unit ID: **K003**

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: Ethanol
TLV (mg/m³): 1,884.25
Maximum Hourly Emission Rate (lbs/hr): 22.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 5,922.44
MAGLC (ug/m³): 44,863.18
 - b. Pollutant: N-Propyl Alcohol
TLV (mg/m³): 491.53
Maximum Hourly Emission Rate (lbs/hr): 22.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 491.64
MAGLC (ug/m³): 11,703.18
 - c. Pollutant: Isopropyl Alcohol
TLV (mg/m³): 983.07

Maximum Hourly Emission Rate (lbs/hr): 22.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 622.57
MAGLC (ug/m³): 23,406.37
 - d. Pollutant: n-Propyl Acetate
TLV (mg/m³): 835.42
Maximum Hourly Emission Rate (lbs/hr): 22.13
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 360.72
MAGLC (ug/m³): 19,890.93
 - e. Pollutant: Ethyl Acetate
TLV (mg/m³): 1,441.31
Maximum Hourly Emission Rate (lbs/hr): 6.42
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 3,874.37
MAGLC (ug/m³): 34,316.88
5. 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:

Issued: To be entered upon final issuance

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

6. 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 that the rolling, 12-month summation of coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility exceeded one hundred forty-eight tons. 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.

Avery Dennison North America Label Div
PTI Application: 13-04408
Issued

Facility ID: 1318001435

Emissions Unit ID: **K003**

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 9.9 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 24.9 tons/yr based on a rolling, 12-month summation;
 - c. an identification of each month during which the rolling, 12-month volatile organic material usage and VOC emissions exceed 99.9 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 emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

Issued: To be entered upon final issuance**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:

22.13 lbs VOC/hour from a combination of ink, coating, additive, adhesive, and cleanup material.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

Press Allocation = (Annual Press Hours, based on CY-2003 data) / (Total Facility Press Hours, based on CY-2003 data)

Annual VOC Emissions By Press = (Facility Material Restriction) * (Press Allocation) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data)

Short Term VOC Emissions (average lb/hr) = (Annual VOC Emissions By Press) / (Annual Mean Press Hours)

PTI Limit Annual VOC Emissions By Press w/ SF # 1 = (Facility Material Restriction) * (Press Allocation, based on CY-2003 data) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data) * (SF #1)

PTI Limit Short Term VOC Emissions w/ SF # 2 = [(CY 2003 VOC Emissions by Press) / (CY2003 Mean Press Hours)] * (SF # 2)

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated

Emissions Unit ID: **K003**

with the VOC content of the coatings applied on a specific press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

b. Emission Limitation:

18.04 tons VOC/year for K001 from a combination of inks, coatings and adhesives, as a 12-month rolling summation.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

Press Allocation = (Annual Press Hours, based on CY-2003 data) / (Total Facility Press Hours, based on CY-2003 data)

Annual VOC Emissions By Press = (Facility Material Restriction) * (Press Allocation) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data)

PTI Limit Annual VOC Emissions By Press w/ SF # 1 = (Facility Material Restriction) * (Press Allocation, based on CY-2003 data) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data) * (SF #1)

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated with the VOC content of the coatings applied on a specific press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in

Issued: To be entered upon final issuance

product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

- c. Emission Limitation:
99.9 tons VOC per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Issued: To be entered upon final issuance

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- d. Emission Limitation:
9.9 tons individual HAP per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- e. Emission Limitation:
24.9 tons combined HAPs per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- f. Operational Limitation:
The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.1.

F. Miscellaneous Requirements

1. The terms and conditions of this permit supercede the terms and conditions of PTI #13-03704 issued September 22, 2000.
2. The following terms and conditions are federally enforceable: A, B, C.1 through C.3, D, and E.

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>
<p>K004 - Arsoma Press no. 674. Narrow web (<18 inches) continuous printing operation with 6 print stations using flexographic and/or rotary screen presses to transfer inked images to a substrate.</p> <p>Terms in this permit supercede those identified in PTI #13-04263 issued on February 17, 2004 .</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>Volatile organic compound (VOC) emissions for this emissions unit shall not exceed 18.5 lbs VOC/hour and 15.08 tpy* from a combination of inks, coatings, adhesives, and clean-up material.</p> <p>* as a 12-month rolling summation</p> <p>See A.2.a. and A.2.b.</p>
<p>Modified</p>	<p>OAC rule 3745-21-09(Y)(2)(b)</p>	<p>The requirements of this rule also include compliance with the requirements of OAC rule(s) 3745-21-09(Y)(2)(b); and 3745-35-07(B).</p> <p>The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year.</p>
	<p>OAC rule 3745-35-07(B) Synthetic Minor to avoid Title V</p>	<p>Volatile organic compound (VOC) emissions from the facility shall not exceed 99.9 tons per rolling 12-month period.</p>

Issued: To be entered upon final issuance

See A.2.a., A.2.b., B.1., and B.2.

2. Additional Terms and Conditions

- 2.a** The maximum annual Hazardous Air Pollutant (HAP) emissions generated at this facility shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based on a rolling, 12-month summation of emissions.
- 2.b** The hourly and annual VOC emission limitations are based on the emissions unit's potential to emit*. As such, no specific emission unit emissions monitoring and/or recordkeeping and reporting requirements are necessary in order to demonstrate compliance with these emissions limits.

* The potential to emit calculations, developed from a joint effort between the facility and the Cleveland Division of Air Quality (Cleveland DAQ), reflect the presumed inherent physical limitations through a press allocation of the material usage restriction (148 tons) as found in OAC Rule 3745-21-09(Y)(2)(b).

B. Operational Restrictions

1. The maximum annual volatile organic material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 99.9 tons, based upon a rolling, 12-month summation of the volatile organic material figures.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual volatile organic material usage over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month usage for the facility.

2. The maximum annual HAPs material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon a rolling, 12-month summation of the HAPs material usage figures.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual HAP material usage over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month usage 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 ink, coating, additive, adhesive, and cleanup material employed;
 - b. the weight, in pounds or tons per month, of each ink, coating, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, coating, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total volatile organic material usage and VOC emissions from all ink, additive, adhesive, and cleanup materials employed calculated by summing the records of [(1.b) x (1.c)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month;
 - e. the rolling, 12-month summation of volatile organic material usage and VOC emissions from all ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons;
 - f. the individual HAP and combined HAP content for each ink, coating, 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 [(1.b) x (1.f)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month; and
 - h. the rolling, 12-month summation of each individual HAP and combined HAP material usage and emissions from all ink, coating, additive, adhesive, and cleanup materials employed, in pounds or tons.
 - i. the rolling, 12-month summation of ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons.
- * the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.
- ** 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

Issued: To be entered upon final issuance

Section C.3.

2. 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; and
 - b. the rolling, 12-month summation of the operational press hours.

The permittee shall use this data to verify, upon request by the Cleveland DAQ, that the annual press allocation of material usage and emissions is valid.

3. 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 [(3.b.) x (3.d.)], in pounds. Note the average VOC emissions, in pounds, from the recovered cleanup/purge material is calculated as [(3.b.) x (3.c.) x (3.d.)] if the material amount is recorded in gallons.

* the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

4. 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

Issued: To be entered upon final issuance

(MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:

- a. Pollutant: Ethanol
TLV (mg/m³): 1,884.25
Maximum Hourly Emission Rate (lbs/hr): 18.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 4,950.97
MAGLC (ug/m³): 44,863.18
 - b. Pollutant: N-Propyl Alcohol
TLV (mg/m³): 491.53
Maximum Hourly Emission Rate (lbs/hr): 18.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 411.0
MAGLC (ug/m³): 11,703.18
 - c. Pollutant: Isopropyl Alcohol
TLV (mg/m³): 983.07

Maximum Hourly Emission Rate (lbs/hr): 18.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 520.45
MAGLC (ug/m³): 23,406.37
 - d. Pollutant: n-Propyl Acetate
TLV (mg/m³): 835.42
Maximum Hourly Emission Rate (lbs/hr): 18.5
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 301.55
MAGLC (ug/m³): 19,890.93
 - e. Pollutant: Ethyl Acetate
TLV (mg/m³): 1,441.31
Maximum Hourly Emission Rate (lbs/hr): 5.37
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 3,238.85
MAGLC (ug/m³): 34,316.88
5. 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:

Emissions Unit ID: **K004**

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

6. 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 that the rolling, 12-month summation of coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility exceeded one hundred forty-eight tons. 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.

Emissions Unit ID: **K004**

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 9.9 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 24.9 tons/yr based on a rolling, 12-month summation;
 - c. an identification of each month during which the rolling, 12-month volatile organic material usage and VOC emissions exceed 99.9 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 emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

Issued: To be entered upon final issuance**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:

18.5 lbs VOC/hour from a combination of ink, coating, additive, adhesive, and cleanup material.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

Press Allocation = (Annual Press Hours, based on CY-2003 data) / (Total Facility Press Hours, based on CY-2003 data)

Annual VOC Emissions By Press = (Facility Material Restriction) * (Press Allocation) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data)

Short Term VOC Emissions (average lb/hr) = (Annual VOC Emissions By Press) / (Annual Mean Press Hours)

PTI Limit Annual VOC Emissions By Press w/ SF # 1 = (Facility Material Restriction) * (Press Allocation, based on CY-2003 data) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data) * (SF #1)

PTI Limit Short Term VOC Emissions w/ SF # 2 = [(CY 2003 VOC Emissions by Press) / (CY2003 Mean Press Hours)] * (SF # 2)

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated

Issued: To be entered upon final issuance

with the VOC content of the coatings applied on a specific press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

b. Emission Limitation:

15.08 tons VOC/year for K001 from a combination of inks, coatings and adhesives, as a 12-month rolling summation.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

Press Allocation = (Annual Press Hours, based on CY-2003 data) / (Total Facility Press Hours, based on CY-2003 data)

Annual VOC Emissions By Press = (Facility Material Restriction) * (Press Allocation) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data)

PTI Limit Annual VOC Emissions By Press w/ SF # 1 = (Facility Material Restriction) * (Press Allocation, based on CY-2003 data) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data) * (SF #1)

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated with the VOC content of the coatings applied on a specific press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based

Avery Dennison North America Label Div

PTI Application: 13-04408

Issued

Facility ID: 1318001435

Emissions Unit ID: **K004**

on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

- c. Emission Limitation:
99.9 tons VOC per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Issued: To be entered upon final issuance

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- d. Emission Limitation:
9.9 tons individual HAP per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- e. Emission Limitation:
24.9 tons combined HAPs per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- f. Operational Limitation:
The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.1.

F. Miscellaneous Requirements

1. The terms and conditions of this permit supercede the terms and conditions of PTI #13-04263 issued February 17, 2004.
2. The following terms and conditions are federally enforceable: A, B, C.1 through C.3, D, and E.

emissions from the facility shall not exceed 99.9 tons per rolling 12-month period.

See A.2.a., A.2.b., B.1., and B.2..

2. Additional Terms and Conditions

- 2.a** The maximum annual Hazardous Air Pollutant (HAP) emissions generated at this facility shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based on a rolling, 12-month summation of emissions.
- 2.b** The hourly and annual VOC emission limitations are based on the emissions unit's potential to emit*. As such, no specific emission unit emissions monitoring and/or recordkeeping and reporting requirements are necessary in order to demonstrate compliance with these emissions limits.

* The potential to emit calculations, developed from a joint effort between the facility and the Cleveland Division of Air Quality (Cleveland DAQ), reflect the presumed inherent physical limitations through a press allocation of the material usage restriction (148 tons) as found in OAC Rule 3745-21-09(Y)(2)(b).

B. Operational Restrictions

1. The maximum annual volatile organic material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 99.9 tons, based upon a rolling, 12-month summation of the volatile organic material figures.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual volatile organic material usage over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month usage for the facility.

2. The maximum annual HAPs material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon a rolling, 12-month summation of the HAPs material usage figures.

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

C. Monitoring and/or Recordkeeping Requirements

Issued: To be entered upon final issuance

1. The permittee shall collect and record the following information each month for the facility:
 - a. the name and identification number of each ink, coating, additive, adhesive, and cleanup material employed;
 - b. the weight, in pounds or tons per month, of each ink, coating, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, coating, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total volatile organic material usage and VOC emissions from all ink, additive, adhesive, and cleanup materials employed calculated by summing the records of [(1.b) x (1.c)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month;
 - e. the rolling, 12-month summation of volatile organic material usage and VOC emissions from all ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons;
 - f. the individual HAP and combined HAP content for each ink, coating, 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 [(1.b) x (1.f)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month; and
 - h. the rolling, 12-month summation of each individual HAP and combined HAP material usage and emissions from all ink, coating, additive, adhesive, and cleanup materials employed, in pounds or tons.
 - i. the rolling, 12-month summation of ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons.
- * the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.
- ** 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

Emissions Unit ID: **K005**

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.3.

2. 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; and
 - b. the rolling, 12-month summation of the operational press hours.

The permittee shall use this data to verify, upon request by the Cleveland DAQ, that the annual press allocation of material usage and emissions is valid.

3. 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 [(3.b.) x (3.d.)], in pounds. Note the average VOC emissions, in pounds, from the recovered cleanup/purge material is calculated as [(3.b.) x (3.c.) x (3.d.)] if the material amount is recorded in gallons.

* the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

4. 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

Issued: To be entered upon final issuance

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: Ethanol
TLV (mg/m³): 1,884.25
Maximum Hourly Emission Rate (lbs/hr): 21.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 5,860.88
MAGLC (ug/m³): 44,863.18
 - b. Pollutant: N-Propyl Alcohol
TLV (mg/m³): 491.53
Maximum Hourly Emission Rate (lbs/hr): 21.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 486.53
MAGLC (ug/m³): 11,703.18
 - c. Pollutant: Isopropyl Alcohol
TLV (mg/m³): 983.07
Maximum Hourly Emission Rate (lbs/hr): 21.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 616.10
MAGLC (ug/m³): 23,406.37
 - d. Pollutant: n-Propyl Acetate
TLV (mg/m³): 835.42
Maximum Hourly Emission Rate (lbs/hr): 21.9
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 356.97
MAGLC (ug/m³): 19,890.93
 - e. Pollutant: Ethyl Acetate
TLV (mg/m³): 1,441.31
Maximum Hourly Emission Rate (lbs/hr): 6.35
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 3,834.10
MAGLC (ug/m³): 34,316.88
5. 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:

Emissions Unit ID: **K005**

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

6. 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 that the rolling, 12-month summation of coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility exceeded one hundred forty-eight tons. 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.

Issued: To be entered upon final issuance

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 9.9 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 24.9 tons/yr based on a rolling, 12-month summation;
 - c. an identification of each month during which the rolling, 12-month volatile organic material usage and VOC emissions exceed 99.9 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 emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

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:

21.9 lbs VOC/hour from a combination of ink, coating, additive, adhesive, and cleanup material.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

$$\text{Press Allocation} = (\text{Annual Press Hours, based on CY-2003 data}) / (\text{Total Facility Press Hours, based on CY-2003 data})$$

$$\text{Annual VOC Emissions By Press} = (\text{Facility Material Restriction}) * (\text{Press Allocation}) * (\text{Average VOC Content of all Facility-Wide Materials, based on CY-2003 data})$$

$$\text{Short Term VOC Emissions (average lb/hr)} = (\text{Annual VOC Emissions By Press}) / (\text{Annual Mean Press Hours})$$

$$\text{PTI Limit Annual VOC Emissions By Press w/ SF \# 1} = (\text{Facility Material Restriction}) * (\text{Press Allocation, based on CY-2003 data}) * (\text{Average VOC Content of all Facility-Wide Materials, based on CY-2003 data}) * (\text{SF \#1})$$

$$\text{PTI Limit Short Term VOC Emissions w/ SF \# 2} = [(\text{CY 2003 VOC Emissions by Press}) / (\text{CY2003 Mean Press Hours})] * (\text{SF \# 2})$$

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated with the VOC content of the coatings applied on a specific press. Propagation of error

Issued: To be entered upon final issuance

associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

b. Emission Limitation:

17.86 tons VOC/year for K001 from a combination of inks, coatings and adhesives, as a 12-month rolling summation.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

Press Allocation = (Annual Press Hours, based on CY-2003 data) / (Total Facility Press Hours, based on CY-2003 data)

Annual VOC Emissions By Press = (Facility Material Restriction) * (Press Allocation) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data)

PTI Limit Annual VOC Emissions By Press w/ SF # 1 = (Facility Material Restriction) * (Press Allocation, based on CY-2003 data) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data) * (SF #1)

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated with the VOC content of the coatings applied on a specific press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) + (141 %, based on possible range of VOC

Emissions Unit ID: **K005**

content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

- c. Emission Limitation:
99.9 tons VOC per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- d. Emission Limitation:
9.9 tons individual HAP per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- e. Emission Limitation:
24.9 tons combined HAPs per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- f. Operational Limitation:
The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.1.

F. Miscellaneous Requirements

1. The following terms and conditions are federally enforceable: A, B, C.1 through C.3, D, and E.

Issued: To be entered upon final issuance

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>
<p>P004 - Webtron Press no. 640. Narrow web (<18 inches) continuous printing operation with 5 print stations using flexographic and/or rotary screen presses to transfer inked images to a substrate.</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>Volatile organic compound (VOC) emissions for this emissions unit shall not exceed 25.23 lbs VOC/hour and 20.57 tpy* from a combination of inks, coatings, adhesives, and clean-up material.</p>
<p>Terms in this permit supercede those identified in PTI #13-03231 issued on July 29, 1998.</p>	<p>OAC rule 3745-21-09(Y)(2)(b)</p>	<p>* as a 12-month rolling summation</p> <p>See A.2.a. and A.2.b.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule(s) 3745-21-09(Y)(2)(b); and 3745-35-07(B).</p>
<p>Modified</p>	<p>OAC rule 3745-35-07(B) Synthetic Minor to avoid Title V</p>	<p>The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year.</p> <p>Volatile organic compound (VOC) emissions from the facility shall not</p>

Issued: To be entered upon final issuance

exceed 99.9 tons per rolling
12-month period.

See A.2.a., A.2.b., B.1., and B.2..

2. Additional Terms and Conditions

- 2.a** The maximum annual Hazardous Air Pollutant (HAP) emissions generated at this facility shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based on a rolling, 12-month summation of emissions.
- 2.b** The hourly and annual VOC emission limitations are based on the emissions unit's potential to emit*. As such, no specific emission unit emissions monitoring and/or recordkeeping and reporting requirements are necessary in order to demonstrate compliance with these emissions limits.

* The potential to emit calculations, developed from a joint effort between the facility and the Cleveland Division of Air Quality (Cleveland DAQ), reflect the presumed inherent physical limitations through a press allocation of the material usage restriction (148 tons) as found in OAC Rule 3745-21-09(Y)(2)(b).

B. Operational Restrictions

1. The maximum annual volatile organic material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 99.9 tons, based upon a rolling, 12-month summation of the volatile organic material figures.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual volatile organic material usage over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month usage for the facility.

2. The maximum annual HAPs material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon a rolling, 12-month summation of the HAPs material usage figures.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual HAP material usage over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month usage 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 ink, coating, additive, adhesive, and cleanup material employed;
 - b. the weight, in pounds or tons per month, of each ink, coating, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, coating, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total volatile organic material usage and VOC emissions from all ink, additive, adhesive, and cleanup materials employed calculated by summing the records of [(1.b) x (1.c)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month;
 - e. the rolling, 12-month summation of volatile organic material usage and VOC emissions from all ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons;
 - f. the individual HAP and combined HAP content for each ink, coating, 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 [(1.b) x (1.f)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month; and
 - h. the rolling, 12-month summation of each individual HAP and combined HAP material usage and emissions from all ink, coating, additive, adhesive, and cleanup materials employed, in pounds or tons.
 - i. the rolling, 12-month summation of ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons.
- * the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.
- ** 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

Issued: To be entered upon final issuance

recycle, recovery, and/or disposal at an outside facility) shall be maintained as required in Section C.3.

2. 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; and
 - b. the rolling, 12-month summation of the operational press hours.

The permittee shall use this data to verify, upon request by the Cleveland DAQ, that the annual press allocation of material usage and emissions is valid.

3. 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 [(3.b.) x (3.d.)], in pounds. Note the average VOC emissions, in pounds, from the recovered cleanup/purge material is calculated as [(3.b.) x (3.c.) x (3.d.)] if the material amount is recorded in gallons.

* the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

4. 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

Emissions Unit ID: P004

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: Ethanol
TLV (mg/m³): 1,884.25
Maximum Hourly Emission Rate (lbs/hr): 25.23
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 6,752.06
MAGLC (ug/m³): 44,863.18
 - b. Pollutant: N-Propyl Alcohol
TLV (mg/m³): 491.53
Maximum Hourly Emission Rate (lbs/hr): 25.23
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 560.51
MAGLC (ug/m³): 11,703.18
 - c. Pollutant: Isopropyl Alcohol
TLV (mg/m³): 983.07
Maximum Hourly Emission Rate (lbs/hr): 25.23
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 709.78
MAGLC (ug/m³): 23,406.37
 - d. Pollutant: n-Propyl Acetate
TLV (mg/m³): 835.42
Maximum Hourly Emission Rate (lbs/hr): 25.23
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 411.25
MAGLC (ug/m³): 19,890.93
 - e. Pollutant: Ethyl Acetate
TLV (mg/m³): 1,441.31
Maximum Hourly Emission Rate (lbs/hr): 7.32
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 4,417.09
MAGLC (ug/m³): 34,316.88
5. 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

Issued: To be entered upon final issuance

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

- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and,
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

6. 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 that the rolling, 12-month summation of coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility exceeded one hundred forty-eight tons. 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.

Emissions Unit ID: P004

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 9.9 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 24.9 tons/yr based on a rolling, 12-month summation;
 - c. an identification of each month during which the rolling, 12-month volatile organic material usage and VOC emissions exceed 99.9 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 emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

Issued: To be entered upon final issuance**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:

25.23 lbs VOC/hour from a combination of ink, coating, additive, adhesive, and cleanup material.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

$$\text{Press Allocation} = (\text{Annual Press Hours, based on CY-2003 data}) / (\text{Total Facility Press Hours, based on CY-2003 data})$$

$$\text{Annual VOC Emissions By Press} = (\text{Facility Material Restriction}) * (\text{Press Allocation}) * (\text{Average VOC Content of all Facility-Wide Materials, based on CY-2003 data})$$

$$\text{Short Term VOC Emissions (average lb/hr)} = (\text{Annual VOC Emissions By Press}) / (\text{Annual Mean Press Hours})$$

$$\text{PTI Limit Annual VOC Emissions By Press w/ SF \# 1} = (\text{Facility Material Restriction}) * (\text{Press Allocation, based on CY-2003 data}) * (\text{Average VOC Content of all Facility-Wide Materials, based on CY-2003 data}) * (\text{SF \#1})$$

$$\text{PTI Limit Short Term VOC Emissions w/ SF \# 2} = [(\text{CY 2003 VOC Emissions by Press}) / (\text{CY2003 Mean Press Hours})] * (\text{SF \# 2})$$

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated

Emissions Unit ID: P004

with the VOC content of the coatings applied on a specific press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

b. Emission Limitation:

20.57 tons VOC/year for K001 from a combination of inks, coatings and adhesives, as a 12-month rolling summation.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

Press Allocation = (Annual Press Hours, based on CY-2003 data) / (Total Facility Press Hours, based on CY-2003 data)

Annual VOC Emissions By Press = (Facility Material Restriction) * (Press Allocation) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data)

PTI Limit Annual VOC Emissions By Press w/ SF # 1 = (Facility Material Restriction) * (Press Allocation, based on CY-2003 data) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data) * (SF #1)

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated with the VOC content of the coatings applied on a specific press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in

Issued: To be entered upon final issuance

product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

- c. Emission Limitation:
99.9 tons VOC per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Emissions Unit ID: P004

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- d. Emission Limitation:
9.9 tons individual HAP per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- e. Emission Limitation:
24.9 tons combined HAPs per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- f. Operational Limitation:
The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.1.

F. Miscellaneous Requirements

1. The terms and conditions of this permit supercede the terms and conditions of PTI #13-03231 issued July 29, 1998.
2. The following terms and conditions are federally enforceable: A, B, C.1 through C.3, D, and E.

Issued: To be entered upon final issuance

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>
<p>P005 - Webtron Press no. 643. Narrow web (<18 inches) continuous printing operation with 5 print stations using flexographic and/or rotary screen presses to transfer inked images to a substrate.</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>Volatile organic compound (VOC) emissions for this emissions unit shall not exceed 21.11 lbs VOC/hour and 17.21 tpy* from a combination of inks, coatings, adhesives, and clean-up material.</p>
<p>Terms in this permit supercede those identified in PTI #13-03231 issued on July 29, 1998.</p>		<p>* as a 12-month rolling summation See A.2.a. and A.2.b.</p>
<p>Modified</p>	<p>OAC rule 3745-21-09(Y)(2)(b)</p>	<p>The requirements of this rule also include compliance with the requirements of OAC rule(s) 3745-21-09(Y)(2)(b); and 3745-35-07(B). The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year.</p>
	<p>OAC rule 3745-35-07(B) Synthetic Minor to avoid Title V</p>	<p>Volatile organic compound (VOC) emissions from the facility shall not exceed 99.9 tons per rolling 12-month</p>

Issued: To be entered upon final issuance
period.

See A.2.a., A.2.b., B.1., and B.2.

2. Additional Terms and Conditions

- 2.a** The maximum annual Hazardous Air Pollutant (HAP) emissions generated at this facility shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based on a rolling, 12-month summation of emissions.
- 2.b** The hourly and annual VOC emission limitations are based on the emissions unit's potential to emit*. As such, no specific emission unit emissions monitoring and/or recordkeeping and reporting requirements are necessary in order to demonstrate compliance with these emissions limits.

* The potential to emit calculations, developed from a joint effort between the facility and the Cleveland Division of Air Quality (Cleveland DAQ), reflect the presumed inherent physical limitations through a press allocation of the material usage restriction (148 tons) as found in OAC Rule 3745-21-09(Y)(2)(b).

B. Operational Restrictions

1. The maximum annual volatile organic material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 99.9 tons, based upon a rolling, 12-month summation of the volatile organic material figures.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual volatile organic material usage over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month usage for the facility.

2. The maximum annual HAPs material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon a rolling, 12-month summation of the HAPs material usage figures.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual HAP material usage over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month usage 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 ink, coating, additive, adhesive, and cleanup material employed;
 - b. the weight, in pounds or tons per month, of each ink, coating, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, coating, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total volatile organic material usage and VOC emissions from all ink, additive, adhesive, and cleanup materials employed calculated by summing the records of [(1.b) x (1.c)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month;
 - e. the rolling, 12-month summation of volatile organic material usage and VOC emissions from all ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons;
 - f. the individual HAP and combined HAP content for each ink, coating, 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 [(1.b) x (1.f)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month; and
 - h. the rolling, 12-month summation of each individual HAP and combined HAP material usage and emissions from all ink, coating, additive, adhesive, and cleanup materials employed, in pounds or tons.
 - i. the rolling, 12-month summation of ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons.
- * the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.
- ** 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

Issued: To be entered upon final issuance

recycle, recovery, and/or disposal at an outside facility) shall be maintained as required in Section C.3.

2. 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; and
 - b. the rolling, 12-month summation of the operational press hours.

The permittee shall use this data to verify, upon request by the Cleveland DAQ, that the annual press allocation of material usage and emissions is valid.

3. 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 [(3.b.) x (3.d.)], in pounds. Note the average VOC emissions, in pounds, from the recovered cleanup/purge material is calculated as [(3.b.) x (3.c.) x (3.d.)] if the material amount is recorded in gallons.

* the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

4. 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

Emissions Unit ID: P005

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: Ethanol
TLV (mg/m³): 1,884.25
Maximum Hourly Emission Rate (lbs/hr): 21.11
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 5,649.46
MAGLC (ug/m³): 44,863.18
 - b. Pollutant: N-Propyl Alcohol
TLV (mg/m³): 491.53
Maximum Hourly Emission Rate (lbs/hr): 21.11
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 468.98
MAGLC (ug/m³): 11,703.18
 - c. Pollutant: Isopropyl Alcohol
TLV (mg/m³): 983.07
Maximum Hourly Emission Rate (lbs/hr): 21.11
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 593.88
MAGLC (ug/m³): 23,406.37
 - d. Pollutant: n-Propyl Acetate
TLV (mg/m³): 835.42
Maximum Hourly Emission Rate (lbs/hr): 21.11
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 344.09
MAGLC (ug/m³): 19,890.93
 - e. Pollutant: Ethyl Acetate
TLV (mg/m³): 1,441.31
Maximum Hourly Emission Rate (lbs/hr): 6.12
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 3,695.79
MAGLC (ug/m³): 34,316.88
5. 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

Issued: To be entered upon final issuance

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

- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and,
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

- 6. 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 that the rolling, 12-month summation of coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility exceeded one hundred forty-eight tons. 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.

Emissions Unit ID: P005

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 9.9 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 24.9 tons/yr based on a rolling, 12-month summation;
 - c. an identification of each month during which the rolling, 12-month volatile organic material usage and VOC emissions exceed 99.9 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 emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

Issued: To be entered upon final issuance**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:

21.11 lbs VOC/hour from a combination of ink, coating, additive, adhesive, and cleanup material.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

Press Allocation = (Annual Press Hours, based on CY-2003 data) / (Total Facility Press Hours, based on CY-2003 data)

Annual VOC Emissions By Press = (Facility Material Restriction) * (Press Allocation) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data)

Short Term VOC Emissions (average lb/hr) = (Annual VOC Emissions By Press) / (Annual Mean Press Hours)

PTI Limit Annual VOC Emissions By Press w/ SF # 1 = (Facility Material Restriction) * (Press Allocation, based on CY-2003 data) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data) * (SF #1)

PTI Limit Short Term VOC Emissions w/ SF # 2 = [(CY 2003 VOC Emissions by Press) / (CY2003 Mean Press Hours)] * (SF # 2)

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated

Emissions Unit ID: **P005**

with the VOC content of the coatings applied on a specific press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

b. Emission Limitation:

17.21 tons VOC/year for K001 from a combination of inks, coatings and adhesives, as a 12-month rolling summation.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

Press Allocation = (Annual Press Hours, based on CY-2003 data) / (Total Facility Press Hours, based on CY-2003 data)

Annual VOC Emissions By Press = (Facility Material Restriction) * (Press Allocation) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data)

PTI Limit Annual VOC Emissions By Press w/ SF # 1 = (Facility Material Restriction) * (Press Allocation, based on CY-2003 data) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data) * (SF #1)

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated with the VOC content of the coatings applied on a specific press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in

73

Avery
PTI A

Emissions Unit ID: **P005**

Issued: To be entered upon final issuance

product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

Issued: To be entered upon final issuance

- c. Emission Limitation:
99.9 tons VOC per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.
- Applicable Compliance Method:
Compliance shall be determined based upon the record keeping specified in Section C.1.
- d. Emission Limitation:
9.9 tons individual HAP per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.
- Applicable Compliance Method:
Compliance shall be determined based upon the record keeping specified in Section C.1.
- e. Emission Limitation:
24.9 tons combined HAPs per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.
- Applicable Compliance Method:
Compliance shall be determined based upon the record keeping specified in Section C.1.
- f. Operational Limitation:
The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year.
- Applicable Compliance Method:
Compliance shall be based upon the record keeping requirements specified in Section C.1.

F. Miscellaneous Requirements

1. The terms and conditions of this permit supercede the terms and conditions of PTI #13-03231 issued July 29, 1998.
2. The following terms and conditions are federally enforceable: A, B, C.1 through C.3, D, and E.

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>
<p>P009 - M. Andy Press no. 669. Narrow web (<18 inches) continuous printing operation with 6 print stations using flexographic and/or rotary screen presses to transfer inked images to a substrate.</p> <p>Terms in this permit supercede those identified in PTI #13-03231 issued on July 29, 1998.</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>Volatile organic compound (VOC) emissions for this emissions unit shall not exceed 24.56 lbs VOC/hour and 20.02 tpy* from a combination of inks, coatings, adhesives, and clean-up material.</p> <p>* as a 12-month rolling summation</p>
<p>Modified</p>	<p>OAC rule 3745-21-09(Y)(2)(b)</p>	<p>See A.2.a. and A.2.b.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule(s) 3745-21-09(Y)(2)(b); and 3745-35-07(B).</p>
	<p>OAC rule 3745-35-07(B) Synthetic Minor to avoid Title V</p>	<p>The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year.</p> <p>Volatile organic compound (VOC) emissions from the facility shall not exceed 99.9 tons per rolling 12-month period.</p>

Issued: To be entered upon final issuance

See A.2.a., A.2.b., B.1., and B.2.

2. Additional Terms and Conditions

2.a The maximum annual Hazardous Air Pollutant (HAP) emissions generated at this facility shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based on a rolling, 12-month summation of emissions.

2.b The hourly and annual VOC emission limitations are based on the emissions unit's potential to emit*. As such, no specific emission unit emissions monitoring and/or recordkeeping and reporting requirements are necessary in order to demonstrate compliance with these emissions limits.

* The potential to emit calculations, developed from a joint effort between the facility and the Cleveland Division of Air Quality (Cleveland DAQ), reflect the presumed inherent physical limitations through a press allocation of the material usage restriction (148 tons) as found in OAC Rule 3745-21-09(Y)(2)(b).

B. Operational Restrictions

1. The maximum annual volatile organic material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 99.9 tons, based upon a rolling, 12-month summation of the volatile organic material figures.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual volatile organic material usage over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month usage for the facility.

2. The maximum annual HAPs material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon a rolling, 12-month summation of the HAPs material usage figures.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual HAP material usage over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month usage 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 ink, coating, additive, adhesive, and cleanup material employed;
 - b. the weight, in pounds or tons per month, of each ink, coating, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, coating, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total volatile organic material usage and VOC emissions from all ink, additive, adhesive, and cleanup materials employed calculated by summing the records of [(1.b) x (1.c)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month;
 - e. the rolling, 12-month summation of volatile organic material usage and VOC emissions from all ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons;
 - f. the individual HAP and combined HAP content for each ink, coating, 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 [(1.b) x (1.f)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month; and
 - h. the rolling, 12-month summation of each individual HAP and combined HAP material usage and emissions from all ink, coating, additive, adhesive, and cleanup materials employed, in pounds or tons.
 - i. the rolling, 12-month summation of ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons.
- * the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.
- ** 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

Issued: To be entered upon final issuance

Section C.3.

2. 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; and
 - b. the rolling, 12-month summation of the operational press hours.

The permittee shall use this data to verify, upon request by the Cleveland DAQ, that the annual press allocation of material usage and emissions is valid.

3. 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 [(3.b.) x (3.d.)], in pounds. Note the average VOC emissions, in pounds, from the recovered cleanup/purge material is calculated as [(3.b.) x (3.c.) x (3.d.)] if the material amount is recorded in gallons.

* the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

4. 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

Issued: To be entered upon final issuance

(MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant:

- a. Pollutant: Ethanol
TLV (mg/m³): 1,884.25
Maximum Hourly Emission Rate (lbs/hr): 24.56
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 6,572.75
MAGLC (ug/m³): 44,863.18
 - b. Pollutant: N-Propyl Alcohol
TLV (mg/m³): 491.53
Maximum Hourly Emission Rate (lbs/hr): 24.56
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 545.63
MAGLC (ug/m³): 11,703.18
 - c. Pollutant: Isopropyl Alcohol
TLV (mg/m³): 983.07
Maximum Hourly Emission Rate (lbs/hr): 24.56
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 690.93
MAGLC (ug/m³): 23,406.37
 - d. Pollutant: n-Propyl Acetate
TLV (mg/m³): 835.42
Maximum Hourly Emission Rate (lbs/hr): 24.56
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 400.33
MAGLC (ug/m³): 19,890.93
 - e. Pollutant: Ethyl Acetate
TLV (mg/m³): 1,441.31
Maximum Hourly Emission Rate (lbs/hr): 7.12
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 4,299.79
MAGLC (ug/m³): 34,316.88
5. 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

Emissions Unit ID: **P009**

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

- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and,
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

- 6. 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 that the rolling, 12-month summation of coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility exceeded one hundred forty-eight tons. 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 9.9 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 24.9 tons/yr based on a rolling, 12-month summation;
- c. an identification of each month during which the rolling, 12-month volatile organic material usage and VOC emissions exceed 99.9 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 emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

Issued: To be entered upon final issuance**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:

24.56 lbs VOC/hour from a combination of ink, coating, additive, adhesive, and cleanup material.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

Press Allocation = (Annual Press Hours, based on CY-2003 data) / (Total Facility Press Hours, based on CY-2003 data)

Annual VOC Emissions By Press = (Facility Material Restriction) * (Press Allocation) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data)

Short Term VOC Emissions (average lb/hr) = (Annual VOC Emissions By Press) / (Annual Mean Press Hours)

PTI Limit Annual VOC Emissions By Press w/ SF # 1 = (Facility Material Restriction) * (Press Allocation, based on CY-2003 data) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data) * (SF #1)

PTI Limit Short Term VOC Emissions w/ SF # 2 = [(CY 2003 VOC Emissions by Press) / (CY2003 Mean Press Hours)] * (SF # 2)

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated

Issued: To be entered upon final issuance

with the VOC content of the coatings applied on a specific press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

b. Emission Limitation:

20.02 tons VOC/year for K001 from a combination of inks, coatings and adhesives, as a 12-month rolling summation.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

Press Allocation = (Annual Press Hours, based on CY-2003 data) / (Total Facility Press Hours, based on CY-2003 data)

Annual VOC Emissions By Press = (Facility Material Restriction) * (Press Allocation) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data)

PTI Limit Annual VOC Emissions By Press w/ SF # 1 = (Facility Material Restriction) * (Press Allocation, based on CY-2003 data) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data) * (SF #1)

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated with the VOC content of the coatings applied on a specific press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based

Avery Dennison North America Label Div

PTI Application: 13-04408

Issued

Facility ID: 1318001435

Emissions Unit ID: **P009**

on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

- c. Emission Limitation:
99.9 tons VOC per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Issued: To be entered upon final issuance

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- d. Emission Limitation:
9.9 tons individual HAP per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- e. Emission Limitation:
24.9 tons combined HAPs per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- f. Operational Limitation:
The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.1.

F. Miscellaneous Requirements

1. The terms and conditions of this permit supercede the terms and conditions of PTI #13-03231 issued July 29, 1998.
2. The following terms and conditions are federally enforceable: A, B, C.1 through C.3, D, and E.

Avery
PTI A

Emissions Unit ID: **P012**

Issued: To be entered upon final issuance

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>
<p>P012 - M. Andy Press no. 667. Narrow web (<18 inches) continuous printing operation with 6 print stations using flexographic and/or rotary screen presses to transfer inked images to a substrate.</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>Volatile organic compound (VOC) emissions for this emissions unit shall not exceed 22.96 lbs VOC/hour and 18.72 tpy* from a combination of inks, coatings, adhesives, and clean-up material.</p>
<p>Terms in this permit supercede those identified in PTI #13-03231 issued on July 29, 1998.</p>	<p>OAC rule 3745-21-09(Y)(2)(b)</p>	<p>* as a 12-month rolling summation</p> <p>See A.2.a. and A.2.b.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule(s) 3745-21-09(Y)(2)(b); and 3745-35-07(B).</p>
<p>Modified</p>	<p>OAC rule 3745-35-07(B) Synthetic Minor to avoid Title V</p>	<p>The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year.</p> <p>Volatile organic compound (VOC) emissions from the facility shall not</p>

exceed 99.9 tons per rolling
12-month period.

See A.2.a., A.2.b., B.1., and B.2..

2. Additional Terms and Conditions

- 2.a** The maximum annual Hazardous Air Pollutant (HAP) emissions generated at this facility shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based on a rolling, 12-month summation of emissions.
- 2.b** The hourly and annual VOC emission limitations are based on the emissions unit's potential to emit*. As such, no specific emission unit emissions monitoring and/or recordkeeping and reporting requirements are necessary in order to demonstrate compliance with these emissions limits.

* The potential to emit calculations, developed from a joint effort between the facility and the Cleveland Division of Air Quality (Cleveland DAQ), reflect the presumed inherent physical limitations through a press allocation of the material usage restriction (148 tons) as found in OAC Rule 3745-21-09(Y)(2)(b).

B. Operational Restrictions

1. The maximum annual volatile organic material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 99.9 tons, based upon a rolling, 12-month summation of the volatile organic material figures.

To ensure enforceability during the first twelve calendar months of operation following the issuance of this permit, the actual volatile organic material usage over the previous twelve calendar months of operation shall be used to calculate the rolling, 12-month usage for the facility.

2. The maximum annual HAPs material usage for the facility (the facility shall include emissions units K002 - K005, P004, P005, P009, and P012) shall not exceed 9.9 tons per year for any individual HAP and 24.9 tons per year for any combination of HAPs, based upon a rolling, 12-month summation of the HAPs material usage figures.

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

C. Monitoring and/or Recordkeeping Requirements

Issued: To be entered upon final issuance

1. The permittee shall collect and record the following information each month for the facility:
 - a. the name and identification number of each ink, coating, additive, adhesive, and cleanup material employed;
 - b. the weight, in pounds or tons per month, of each ink, coating, additive, adhesive, and cleanup material employed as applied;
 - c. the VOC content of each ink, coating, additive, adhesive, and cleanup material employed, as applied, in percent by weight;
 - d. the total volatile organic material usage and VOC emissions from all ink, additive, adhesive, and cleanup materials employed calculated by summing the records of [(1.b) x (1.c)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month;
 - e. the rolling, 12-month summation of volatile organic material usage and VOC emissions from all ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons;
 - f. the individual HAP and combined HAP content for each ink, coating, 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 [(1.b) x (1.f)] for each ink, coating, additive, adhesive, and cleanup material, and subtracting any recovered material** in pounds or tons per month; and
 - h. the rolling, 12-month summation of each individual HAP and combined HAP material usage and emissions from all ink, coating, additive, adhesive, and cleanup materials employed, in pounds or tons.
 - i. the rolling, 12-month summation of ink, coating, additive, adhesive, and cleanup material employed, in pounds or tons.
- * the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.
- ** 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

Emissions Unit ID: **P012**

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.3.

2. 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; and
 - b. the rolling, 12-month summation of the operational press hours.

The permittee shall use this data to verify, upon request by the Cleveland DAQ, that the annual press allocation of material usage and emissions is valid.

3. 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 [(3.b.) x (3.d.)], in pounds. Note the average VOC emissions, in pounds, from the recovered cleanup/purge material is calculated as [(3.b.) x (3.c.) x (3.d.)] if the material amount is recorded in gallons.

* the facility emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

4. 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

Issued: To be entered upon final issuance

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: Ethanol
TLV (mg/m³): 1,884.25
Maximum Hourly Emission Rate (lbs/hr): 22.96
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 6,144.56
MAGLC (ug/m³): 44,863.18
 - b. Pollutant: N-Propyl Alcohol
TLV (mg/m³): 491.53
Maximum Hourly Emission Rate (lbs/hr): 22.96
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 510.08
MAGLC (ug/m³): 11,703.18
 - c. Pollutant: Isopropyl Alcohol
TLV (mg/m³): 983.07
Maximum Hourly Emission Rate (lbs/hr): 22.96
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 645.92
MAGLC (ug/m³): 23,406.37
 - d. Pollutant: n-Propyl Acetate
TLV (mg/m³): 835.42
Maximum Hourly Emission Rate (lbs/hr): 22.96
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 374.25
MAGLC (ug/m³): 19,890.93
 - e. Pollutant: Ethyl Acetate
TLV (mg/m³): 1,441.31
Maximum Hourly Emission Rate (lbs/hr): 6.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 4,019.68
MAGLC (ug/m³): 34,316.88
5. 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:

Emissions Unit ID: **P012**

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

6. 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 that the rolling, 12-month summation of coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility exceeded one hundred forty-eight tons. 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.

Issued: To be entered upon final issuance

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 9.9 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 24.9 tons/yr based on a rolling, 12-month summation;
 - c. an identification of each month during which the rolling, 12-month volatile organic material usage and VOC emissions exceed 99.9 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 emission, and usage, limits shall include the following units: K002-K005, P004, P005, P009, and P012.

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:

22.96 lbs VOC/hour from a combination of ink, coating, additive, adhesive, and cleanup material.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

Press Allocation = (Annual Press Hours, based on CY-2003 data) / (Total Facility Press Hours, based on CY-2003 data)

Annual VOC Emissions By Press = (Facility Material Restriction) * (Press Allocation) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data)

Short Term VOC Emissions (average lb/hr) = (Annual VOC Emissions By Press) / (Annual Mean Press Hours)

PTI Limit Annual VOC Emissions By Press w/ SF # 1 = (Facility Material Restriction) * (Press Allocation, based on CY-2003 data) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data) * (SF #1)

PTI Limit Short Term VOC Emissions w/ SF # 2 = [(CY 2003 VOC Emissions by Press) / (CY2003 Mean Press Hours)] * (SF # 2)

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated with the VOC content of the coatings applied on a specific press. Propagation of error

Issued: To be entered upon final issuance

associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

b. Emission Limitation:

18.72 tons VOC/year for K001 from a combination of inks, coatings and adhesives, as a 12-month rolling summation.

Applicable Compliance Method:

This emission limitation is based upon the unit's potential to emit. The potential to emit calculations, as shown in the following equations, were derived using company-specified process data.

Press Allocation = (Annual Press Hours, based on CY-2003 data) / (Total Facility Press Hours, based on CY-2003 data)

Annual VOC Emissions By Press = (Facility Material Restriction) * (Press Allocation) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data)

PTI Limit Annual VOC Emissions By Press w/ SF # 1 = (Facility Material restriction) * (Press Allocation, based on CY-2003 data) * (Average VOC Content of all Facility-Wide Materials, based on CY-2003 data) * (SF #1)

Safety Factor # 1 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in product coverage over all product lines) = 143 %; Therefore, SF # 1 = 1.43 was applied to the annual limit to determine worst case emissions.

Safety Factor # 2 considers the error associated with the presumed physical limitations in regards to the allocation of facility ink usage by individual press AND the error associated with the VOC content of the coatings applied on a specific press. Propagation of error associated with the physical limitations determined from a historical review of the press allocation = (12%, based on historical fluctuation in operational hours) + (101%, based on the # of possible print stations used during operation) + (30%, based on variation in

Emissions Unit ID: **P012**

product coverage over all product lines) + (141 %, based on possible range of VOC content per individual coating) = 284 %; Therefore, SF # 2 = 2.84 was applied to the short term limit to determine worst case emissions.

- c. Emission Limitation:
99.9 tons VOC per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Issued: To be entered upon final issuance

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- d. Emission Limitation:
9.9 tons individual HAP per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- e. Emission Limitation:
24.9 tons combined HAPs per year from a combination of inks, coatings, additives, adhesives, and cleanup materials, as a 12-month rolling summation.

Applicable Compliance Method:

Compliance shall be determined based upon the record keeping specified in Section C.1.

- f. Operational Limitation:
The total maximum coating and ink usage in all flexographic, packaging rotogravure, and publication rotogravure printing lines at this facility shall be less than or equal to one hundred forty-eight tons per year.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section C.1.

F. Miscellaneous Requirements

1. The terms and conditions of this permit supercede the terms and conditions of PTI #13-03231 issued July 29, 1998.
2. The following terms and conditions are federally enforceable: A, B, C.1 through C.3, D, and E.