State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL **CERTIFIED MAIL**
MEDINA COUNTY

Street Address:
122 S. Front Street
Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329
Mailing Address:
Lazarus Gov. Center
P.O. Box 1049

Application No: 16-02342

DATE: 6/24/2004

Avery Dennison/Industrial Coatings Div.
Andrew Sawan
2845 Center Road
Brunswick, OH 44212

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

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

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

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

Sincerely,

Michael W. Ahern

Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

cc: **USEPA** **ARAQMD**

OhioEPA

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 6/24/2004**
Terms and Conditions	**Effective Date: 6/24/2004**

FINAL PERMIT TO INSTALL 16-02342

Application Number:	16-02342
APS Premise Number:	1652010054
Permit Fee:	**$1000**
Name of Facility:	Avery Dennison/Industrial Coatings Div.
Person to Contact:	Andrew Sawan
Address:	2845 Center Road Brunswick, OH 44212

Location of proposed air contaminant source(s) [emissions unit(s)]:
2845 Center Road
Brunswick, **Ohio**

Description of proposed emissions unit(s):
Installation of 5 silk screen printing lines.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

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

3. Records Retention Requirements

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

4. Inspections and Information Requests

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

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

5. Scheduled Maintenance/Malfunction Reporting

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

6. Permit Transfers

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

7. Air Pollution Nuisance

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

8. Termination of Permit to Install

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

9. Construction of New Sources(s)

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

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

Pollutant	Tons Per Year
OCs	78.4
Individual HAPs	9.5

Emissions Unit ID: **R001**

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.

Operations, Property, and/or Equipment	unrestricted and uncontrolled PTE less than 100 tpy OCs and 25 tpy combined HAPs).	Applicable Rules/Requirements
R001 (Daytona Silk Screen Press #1) sheetfed & non continuous roll fed web (including vinyl, textiles, paper, corrugate, and other substrates) silk screen printing line employing solvent inks dried by a natural gas-fired oven with a maximum heat input of less than 0.5 mmBtu/hour & UV inks cured by an ultraviolet radiation oven; air emissions of organic compounds (OCs) uncontrolled and vented from ovens to a stack; application includes facility-requested federally enforceable Title V Synthetic Minor (TVSM) material usage restrictions to limit the facility's potential to emit (PTE) hazardous air pollutants (HAPs) below the applicable Title V emissions threshold of 10 tpy for any individual HAP.		OAC rule 3745-31-05(A)(3) OAC rule 3745-35-07(B)
Note: This facility, which includes R001 through R005 and (4) de minimis (per OAC rule 3745-15-05) emissions units, including (2) Indigo Digital Print Presses, (1) Narrow Web Hot Melt Coater, and (1) R&D Lab, is a natural minor source of OC and combined HAP emissions (i.e.,		OAC rule 3745-21-07(G)

Applicable Emissions Limitations/Control Measures
OC emissions from inks, as applied after final thinning, and cleanup shall not exceed 86.5 lbs/day & 15.8 tpy.
No photochemically reactive materials (PRMs), as defined in OAC rule 3745-21-01(C)(5), shall be employed in this emissions unit.
The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-35-07(B), and Part II, Sections A.2 and B.1 below.
The facility shall limit emissions of any individual HAP to no more than 9.5 tpy, based upon a rolling, 12-month summation of the monthly emissions, per the federally enforceable material usage restrictions of Part II, Section B.1 below.
Exempt from the requirements of OAC rule 3745-21-07(G)(2) per OAC rule 3745-21-07(G)(9).

2. Additional Terms and Conditions

2.a The 86.5 lbs/day & 15.8 tpy OC emissions limitations regulated per OAC rule 3745-31-05(A)(3) are based upon accepted USEPA potential to emit procedures for this emissions unit. Therefore, no associated record keeping or reporting are required to demonstrate compliance with these emissions limits.

However, if any proposed change(s), such as with production capacity, the types and/or quantities of materials used or processed, or anything else that increase(s) the potential emissions of any air pollutant, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).

2.b As a way to reduce air emissions, all inks, coatings, thinners, cleanup solvents/rags, and all other organic solvent containing materials shall be properly identified and held in tightly closed containers at all times when not in use or waiting for appropriate off-site disposal.

B. Operational Restrictions

1. The maximum annual individual HAP material usage* (from inks, coatings, thinners, and cleanup materials) for the facility (R001 through R005 and the two Indigo Digital Print Presses, the Narrow Web Hot Melt Coater, and the R&D Lab) shall not exceed 9.5 tons, based upon a rolling, 12-month summation of the monthly individual HAP material usage figures.

*Annual individual HAP material usage rate (input) is equivalent to an annual individual HAP emissions rate and is based upon the solvent in the materials employed or applied being emitted.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the individual HAP material usage levels specified in the following table:

Month(s)	Maximum Allowable Cumulative individual HAP material Usage (tons)
1	0.8
1-2	1.6
1-3	2.4
1-4	3.2
1-5	4.0
1-6	4.8
1-7	5.6

1-8	6.4
1-9	7.2
1-10	8.0
1-11	8.8
1-12	9.5

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual individual HAP material usage limitation shall be based upon a rolling, 12-month summation of the monthly individual HAP material usage figures.

C. Monitoring and/or Recordkeeping Requirements

1. On any day the permittee employs any photochemically reactive material(s) in this emissions unit, as defined in OAC rule 3745-21-01(C)(5), the following information shall be collected and recorded:

   a. the company identification of each liquid organic material, excluding non photochemically reactive cleanup materials, employed in the emissions unit during each such day;

   b. the total quantity of liquid organic material(s) emitted, in pounds, excluding non photochemically reactive cleanup materials, from the emissions unit during each such day;

   c. the actual number of hours of operation of the emissions unit during each such day; and

   d. the average hourly rate of liquid organic material(s) emitted, in pounds/hour, excluding non photochemically reactive cleanup materials, from the emissions unit during each such day, i.e., d = b/c.

2. The permittee shall collect/record the following information each month for the facility (R001 through R005, the two Indigo Digital Print Presses, the Narrow Web Hot Melt Coater, and the R&D Lab):

   a. the name and identification number of each ink, coating, thinner, and cleanup material employed;

   b. the weight, in pounds per month, of each ink, as applied;

   c. the weight, in pounds per month, of each coating, as applied;

   d. the weight, in pounds per month, of each thinner, as applied;

   e. the weight, in pounds per month, of each cleanup material, as applied;

   f. the individual HAP content for each HAP of each ink, as applied, in percent by weight;

g. the individual HAP content for each HAP of each coating, as applied, in percent by weight;

h. the individual HAP content for each HAP of each thinner, as applied, in percent by weight;

i. the individual HAP content for each HAP of each cleanup material, as applied, in percent by weight;

j. the total individual HAP material usage for each HAP of all inks, as applied, in pounds per month, i.e., j = sum[b x f] for all inks;

k. the total individual HAP material usage for each HAP of all coatings, as applied, in pounds per month, i.e., k = sum[c x g] for all coatings;

l. the total individual HAP material usage for each HAP of all thinners, as applied, in pounds per month, i.e., l = sum[d x h] for all thinners;

m. the total individual HAP material usage for each HAP of all cleanup materials, as applied, in pounds per month, i.e., m = sum[e x i] for all cleanup materials;

n. the total individual HAP material usage for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per month, i.e., n = [j + k + l + m]/2000;

o. the total individual HAP emissions for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per month, i.e., o = n, since emissions rate equals usage rate;

p. the rolling, 12-month summation of the monthly individual HAP material usage rates for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per year;

q. the rolling, 12-month summation of the monthly individual HAP emissions rates for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per year, i.e., q = p, since emissions rate equals usage rate.

3. The permit to install for this emissions unit was evaluated based on the actual process 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 Toxics 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(s):

Pollutant: ethylene glycol monobutyl ether (CAS 111-76-2)
TLV (ug/m3): 100,000
Maximum Hourly Emission Rate (lbs/hr): 3.55
Predicted 1-Hour Maximum Ground-Level Concentration at 39 m (ug/m3): 804
MAGLC (ug/m3): 2381

4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics 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 Toxics Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxics Policy" include the following:

   i. changes in the composition of the materials used (process materials and 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;

   ii 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

   iii 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 Toxics Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

5. The permittee shall collect, record, and retain the following information when it conducts evaluations
   to determine that the emissions unit, if changed as outlined above, will still satisfy the "Air Toxics 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 Toxics 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 Toxics Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify the days during which photochemically reactive materials were employed in the emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of material(s) emitted in pounds, hourly and daily, during each such day.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the facility 9.5 tpy individual HAP material usage restriction using the methodology specified in Section C.2 above, as well as the corrective actions that were taken to achieve compliance.

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the facility 9.5 tpy individual HAP emissions limitation using the methodology specified in Section C.2 above, as well as the corrective actions that were taken to achieve compliance.

4. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition 2 of this permit.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

   a. Emissions Limitations: 86.5 lbs/day & 15.8 tpy of OCs (emissions unit)

      Applicable Compliance Method: The above emissions limitations were established based on the unrestricted/uncontrolled potential to emit, as shown in the following equations, using company-specified process data:

      D = P*I*H*E + M; and
      Y = D*T*W

      Where,

      D = 86.5 pounds/day of OCs [unrestricted/uncontrolled daily potential to emit];
      Y = 15.8 tons/year of OCs [unrestricted/uncontrolled yearly potential to emit];
      P = 420,000 square inches web/hour [maximum production capacity];
      I = 0.000008278 pound ink/square inch web [maximum process factor];
      H = 24 hours/day [continuous operations];

Emissions Unit ID: **R001**

E = 1 pound OC emissions/pound ink usage [emissions rate equals usage rate];
M = 3 pounds/day OCs from cleanup [maximum cleanup material usage per maximum web production, assumes OC emissions rate equals cleanup material usage rate];
T = 365 days/year [unrestricted operating schedule]; and
W = 1 ton/2000 pounds [weight conversion].

b. Emissions Limitation: 9.5 tpy individual HAPs, based upon a rolling, 12-month summation of the monthly emissions from this facility (R001 through R005, the two Indigo Digital Print Presses, the Narrow Web Hot Melt Coater, and the R&D Lab)
Applicable Compliance Method: Compliance shall be based upon the record keeping requirements of section C.2 above.

F. Miscellaneous Requirements

1. All of the terms and conditions of this permit are federally enforceable.

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.

Operations, Property, and/or Equipment		Applicable Rules/Requirements
R002 (Daytona Silk Screen Press 2) sheetfed & non continuous roll fed web (including vinyl, textiles, paper, corrugate, and other substrates) silk screen printing line employing solvent inks dried by a natural gas-fired oven with a maximum heat input of less than 0.5 mmBtu/hour & UV inks cured by an ultraviolet radiation oven; air emissions of organic compounds (OCs) uncontrolled and vented from ovens to a stack; application includes facility-requested federally enforceable Title V Synthetic Minor (TVSM) material usage restrictions to limit the facility's potential to emit (PTE) hazardous air pollutants (HAPs) below the applicable Title V emissions threshold of 10 tpy for any individual HAP. Note: This facility, which includes R001 through R005 and (4) de	minimis (per OAC rule 3745-15-05) emissions units, including (2) Indigo Digital Print Presses, (1) Narrow Web Hot Melt Coater, and (1) R&D Lab, is a natural minor source of OC and combined HAP emissions (i.e., unrestricted and uncontrolled PTE less than 100 tpy OCs and 25 tpy combined HAPs).	OAC rule 3745-31-05(A)(3) OAC rule 3745-35-07(B) OAC rule 3745-21-07(G)

Applicable Emissions Limitations/Control Measures
OC emissions from inks, as applied after final thinning, and cleanup shall not exceed 86.5 lbs/day & 15.8 tpy.
No photochemically reactive materials (PRMs), as defined in OAC rule 3745-21-01(C)(5), shall be employed in this emissions unit.
The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-35-07(B), and Part II, Sections A.2 and B.1 below.
The facility shall limit emissions of any individual HAP to no more than 9.5 tpy, based upon a rolling, 12-month summation of the monthly emissions, per the federally enforceable material usage restrictions of Part II, Section B.1 below.
Exempt from the requirements of OAC rule 3745-21-07(G)(2) per OAC rule 3745-21-07(G)(9).

2. Additional Terms and Conditions

2.a The 86.5 lbs/day & 15.8 tpy OC emissions limitations regulated per OAC rule 3745-31-05(A)(3) are based upon accepted USEPA potential to emit procedures for this emissions unit. Therefore, no associated record keeping or reporting are required to demonstrate compliance with these emissions limits.

However, if any proposed change(s), such as with production capacity, the types and/or quantities of materials used or processed, or anything else that increase(s) the potential emissions of any air pollutant, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).

2.b As a way to reduce air emissions, all inks, coatings, thinners, cleanup solvents/rags, and all other organic solvent containing materials shall be properly identified and held in tightly closed containers at all times when not in use or waiting for appropriate off-site disposal.

B. Operational Restrictions

1. The maximum annual individual HAP material usage* (from inks, coatings, thinners, and cleanup materials) for the facility (R001 through R005 and the two Indigo Digital Print Presses, the Narrow Web Hot Melt Coater, and the R&D Lab) shall not exceed 9.5 tons, based upon a rolling, 12-month summation of the monthly individual HAP material usage figures.

*Annual individual HAP material usage rate (input) is equivalent to an annual individual HAP emissions rate and is based upon the solvent in the materials employed or applied being emitted.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the individual HAP material usage levels specified in the following table:

Month(s)	Maximum Allowable Cumulative individual HAP material Usage (tons)
1	0.8
1-2	1.6
1-3	2.4
1-4	3.2
1-5	4.0
1-6	4.8
1-7	5.6
1-8	6.4
1-9	7.2
1-10	8.0
1-11	8.8

1-12	9.5

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual individual HAP material usage limitation shall be based upon a rolling, 12-month summation of the monthly individual HAP material usage figures.

C. Monitoring and/or Recordkeeping Requirements

1. On any day the permittee employs any photochemically reactive material(s) in this emissions unit, as defined in OAC rule 3745-21-01(C)(5), the following information shall be collected and recorded:

   a. the company identification of each liquid organic material, excluding non photochemically reactive cleanup materials, employed in the emissions unit during each such day;

   b. the total quantity of liquid organic material(s) emitted, in pounds, excluding non photochemically reactive cleanup materials, from the emissions unit during each such day;

   c. the actual number of hours of operation of the emissions unit during each such day; and

   d. the average hourly rate of liquid organic material(s) emitted, in pounds/hour, excluding non photochemically reactive cleanup materials, from the emissions unit during each such day, i.e., d = b/c.

2. The permittee shall collect/record the following information each month for the facility (R001 through R005, the two Indigo Digital Print Presses, the Narrow Web Hot Melt Coater, and the R&D Lab):

   a. the name and identification number of each ink, coating, thinner, and cleanup material employed;

   b. the weight, in pounds per month, of each ink, as applied;

   c. the weight, in pounds per month, of each coating, as applied;

   d. the weight, in pounds per month, of each thinner, as applied;

   e. the weight, in pounds per month, of each cleanup material, as applied;

   f. the individual HAP content for each HAP of each ink, as applied, in percent by weight;

g. the individual HAP content for each HAP of each coating, as applied, in percent by weight;

h. the individual HAP content for each HAP of each thinner, as applied, in percent by weight;

i. the individual HAP content for each HAP of each cleanup material, as applied, in percent by weight;

j. the total individual HAP material usage for each HAP of all inks, as applied, in pounds per month, i.e., j = sum[b x f] for all inks;

k. the total individual HAP material usage for each HAP of all coatings, as applied, in pounds per month, i.e., k = sum[c x g] for all coatings;

l. the total individual HAP material usage for each HAP of all thinners, as applied, in pounds per month, i.e., l = sum[d x h] for all thinners;

m. the total individual HAP material usage for each HAP of all cleanup materials, as applied, in pounds per month, i.e., m = sum[e x i] for all cleanup materials;

n. the total individual HAP material usage for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per month, i.e., n = [j + k + l + m]/2000;

o. the total individual HAP emissions for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per month, i.e., o = n, since emissions rate equals usage rate;

p. the rolling, 12-month summation of the monthly individual HAP material usage rates for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per year;

q. the rolling, 12-month summation of the monthly individual HAP emissions rates for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per year, i.e., q = p, since emissions rate equals usage rate.

3. The permit to install for this emissions unit was evaluated based on the actual process 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 Toxics 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(s):

Pollutant: ethylene glycol monobutyl ether (CAS 111-76-2)
TLV (ug/m3): 100,000
Maximum Hourly Emission Rate (lbs/hr): 3.55
Predicted 1-Hour Maximum Ground-Level Concentration at 39 m (ug/m3): 804
MAGLC (ug/m3): 2381

4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics 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 Toxics Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxics Policy" include the following:

   i. changes in the composition of the materials used (process materials and 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;

   ii 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

   iii 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 Toxics Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

5. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the emissions unit, if changed as outlined above, will still satisfy the "Air Toxics 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 Toxics 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 Toxics Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify the days during which photochemically reactive materials were employed in the emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of material(s) emitted in pounds, hourly and daily, during each such day.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the facility 9.5 tpy individual HAP material usage restriction using the methodology specified in Section C.2 above, as well as the corrective actions that were taken to achieve compliance.

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the facility 9.5 tpy individual HAP emissions limitation using the methodology specified in Section C.2 above, as well as the corrective actions that were taken to achieve compliance.

4. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition 2 of this permit.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

   a. Emissions Limitations: 86.5 lbs/day & 15.8 tpy of OCs (emissions unit)

      Applicable Compliance Method: The above emissions limitations were established based on the unrestricted/uncontrolled potential to emit, as shown in the following equations, using company-specified process data:

      D = P*I*H*E + M; and
      Y = D*T*W

      Where,

      D = 86.5 pounds/day of OCs [unrestricted/uncontrolled daily potential to emit];
      Y = 15.8 tons/year of OCs [unrestricted/uncontrolled yearly potential to emit];

P = 420,000 square inches web/hour [maximum production capacity];
I = 0.000008278 pound ink/square inch web [maximum process factor];
H = 24 hours/day [continuous operations];
E = 1 pound OC emissions/pound ink usage [emissions rate equals usage rate];
M = 3 pounds/day OCs from cleanup [maximum cleanup material usage per maximum web production, assumes OC emissions rate equals cleanup material usage rate];
T = 365 days/year [unrestricted operating schedule]; and
W = 1 ton/2000 pounds [weight conversion].

b. Emissions Limitation: 9.5 tpy individual HAPs, based upon a rolling, 12-month summation of the monthly emissions from this facility (R001 through R005, the two Indigo Digital Print Presses, the Narrow Web Hot Melt Coater, and the R&D Lab)
Applicable Compliance Method: Compliance shall be based upon the record keeping requirements of section C.2 above.

F. Miscellaneous Requirements

1. All of the terms and conditions of this permit are federally enforceable.

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.

Operations, Property, and/or Equipment	Presses, (1) Narrow Web Hot Melt Coater, and (1) R&D Lab, is a natural minor source of OC and combined HAP emissions (i.e., unrestricted and uncontrolled PTE less than 100 tpy OCs and 25 tpy combined HAPs).	Applicable Rules/Requirements
R003 (Thieme 72x110 Silk Screen Press) sheetfed & non continuous roll fed web (including vinyl, textiles, paper, corrugate, and other substrates) silk screen printing line employing solvent inks dried by a natural gas-fired oven with a maximum heat input of less than 0.5 mmBtu/hour & UV inks cured by an ultraviolet radiation oven; air emissions of organic compounds (OCs) uncontrolled and vented from ovens to a stack; application includes facility-requested federally enforceable Title V Synthetic Minor (TVSM) material usage restrictions to limit the facility's potential to emit (PTE) hazardous air pollutants (HAPs) below the applicable Title V emissions threshold of 10 tpy for any individual HAP.		OAC rule 3745-31-05(A)(3) OAC rule 3745-35-07(B)
Note: This facility, which includes R001 through R005 and (4) de minimis (per OAC rule 3745-15-05) emissions units, including (2) Indigo Digital Print		OAC rule 3745-21-07(G)

Applicable Emissions Limitations/Control Measures
OC emissions from inks, as applied after final thinning, and cleanup shall not exceed 85.8 lbs/day & 15.7 tpy.
No photochemically reactive materials (PRMs), as defined in OAC rule 3745-21-01(C)(5), shall be employed in this emissions unit.
The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-35-07(B), and Part II, Sections A.2 and B.1 below.
The facility shall limit emissions of any individual HAP to no more than 9.5 tpy, based upon a rolling, 12-month summation of the monthly emissions, per the federally enforceable material usage restrictions of Part II, Section B.1 below.
Exempt from the requirements of OAC rule 3745-21-07(G)(2) per OAC rule 3745-21-07(G)(9).

2. Additional Terms and Conditions

2.a The 85.8 lbs/day & 15.7 tpy OC emissions limitations regulated per OAC rule 3745-31-05(A)(3) are based upon accepted USEPA potential to emit procedures for this emissions unit. Therefore, no associated record keeping or reporting are required to demonstrate compliance with these emissions limits.

However, if any proposed change(s), such as with production capacity, the types and/or quantities of materials used or processed, or anything else that increase(s) the potential emissions of any air pollutant, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).

2.b As a way to reduce air emissions, all inks, coatings, thinners, cleanup solvents/rags, and all other organic solvent containing materials shall be properly identified and held in tightly closed containers at all times when not in use or waiting for appropriate off-site disposal.

B. Operational Restrictions

1. The maximum annual individual HAP material usage* (from inks, coatings, thinners, and cleanup materials) for the facility (R001 through R005 and the two Indigo Digital Print Presses, the Narrow Web Hot Melt Coater, and the R&D Lab) shall not exceed 9.5 tons, based upon a rolling, 12-month summation of the monthly individual HAP material usage figures.

*Annual individual HAP material usage rate (input) is equivalent to an annual individual HAP emissions rate and is based upon the solvent in the materials employed or applied being emitted.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the individual HAP material usage levels specified in the following table:

Month(s)	Maximum Allowable Cumulative individual HAP material Usage (tons)
1	0.8
1-2	1.6
1-3	2.4
1-4	3.2
1-5	4.0
1-6	4.8
1-7	5.6

1-8	6.4
1-9	7.2
1-10	8.0
1-11	8.8
1-12	9.5

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual individual HAP material usage limitation shall be based upon a rolling, 12-month summation of the monthly individual HAP material usage figures.

C. Monitoring and/or Recordkeeping Requirements

1. On any day the permittee employs any photochemically reactive material(s) in this emissions unit, as defined in OAC rule 3745-21-01(C)(5), the following information shall be collected and recorded:

   a. the company identification of each liquid organic material, excluding non photochemically reactive cleanup materials, employed in the emissions unit during each such day;

   b. the total quantity of liquid organic material(s) emitted, in pounds, excluding non photochemically reactive cleanup materials, from the emissions unit during each such day;

   c. the actual number of hours of operation of the emissions unit during each such day; and

   d. the average hourly rate of liquid organic material(s) emitted, in pounds/hour, excluding non photochemically reactive cleanup materials, from the emissions unit during each such day, i.e., d = b/c.

2. The permittee shall collect/record the following information each month for the facility (R001 through R005, the two Indigo Digital Print Presses, the Narrow Web Hot Melt Coater, and the R&D Lab):

   a. the name and identification number of each ink, coating, thinner, and cleanup material employed;

   b. the weight, in pounds per month, of each ink, as applied;

   c. the weight, in pounds per month, of each coating, as applied;

   d. the weight, in pounds per month, of each thinner, as applied;

   e. the weight, in pounds per month, of each cleanup material, as applied;

   f. the individual HAP content for each HAP of each ink, as applied, in percent by weight;

g. the individual HAP content for each HAP of each coating, as applied, in percent by weight;

h. the individual HAP content for each HAP of each thinner, as applied, in percent by weight;

i. the individual HAP content for each HAP of each cleanup material, as applied, in percent by weight;

j. the total individual HAP material usage for each HAP of all inks, as applied, in pounds per month, i.e., j = sum[b x f] for all inks;

k. the total individual HAP material usage for each HAP of all coatings, as applied, in pounds per month, i.e., k = sum[c x g] for all coatings;

l. the total individual HAP material usage for each HAP of all thinners, as applied, in pounds per month, i.e., l = sum[d x h] for all thinners;

m. the total individual HAP material usage for each HAP of all cleanup materials, as applied, in pounds per month, i.e., m = sum[e x i] for all cleanup materials;

n. the total individual HAP material usage for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per month, i.e., n = [j + k + l + m]/2000;

o. the total individual HAP emissions for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per month, i.e., o = n, since emissions rate equals usage rate;

p. the rolling, 12-month summation of the monthly individual HAP material usage rates for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per year;

q. the rolling, 12-month summation of the monthly individual HAP emissions rates for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per year, i.e., q = p, since emissions rate equals usage rate.

3. The permit to install for this emissions unit was evaluated based on the actual process 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 Toxics 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(s):

Pollutant: ethylene glycol monobutyl ether (CAS 111-76-2)
TLV (ug/m3): 100,000
Maximum Hourly Emission Rate (lbs/hr): 3.55
Predicted 1-Hour Maximum Ground-Level Concentration at 39 m (ug/m3): 804
MAGLC (ug/m3): 2381

4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics 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 Toxics Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxics Policy" include the following:

   i. changes in the composition of the materials used (process materials and 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;

   ii 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

   iii 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 Toxics Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

5. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the emissions unit, if changed as outlined above, will still satisfy the "Air Toxics 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 Toxics 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 Toxics Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify the days during which photochemically reactive materials were employed in the emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of material(s) emitted in pounds, hourly and daily, during each such day.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the facility 9.5 tpy individual HAP material usage restriction using the methodology specified in Section C.2 above, as well as the corrective actions that were taken to achieve compliance.

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the facility 9.5 tpy individual HAP emissions limitation using the methodology specified in Section C.2 above, as well as the corrective actions that were taken to achieve compliance.

4. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition 2 of this permit.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

   a. Emissions Limitations: 85.8 lbs/day & 15.7 tpy of OCs (emissions unit)

      Applicable Compliance Method: The above emissions limitations were established based on the unrestricted/uncontrolled potential to emit, as shown in the following equations, using company-specified process data:

      D = P*I*H*E + M; and
      Y = D*T*W

      Where,

      D = 85.8 pounds/day of OCs [unrestricted/uncontrolled daily potential to emit];
      Y = 15.7 tons/year of OCs [unrestricted/uncontrolled yearly potential to emit];

P = 518,400 square inches web/hour [maximum production capacity];
I = 0.000006898 pound ink/square inch web [maximum process factor];
H = 24 hours/day [continuous operations];
E = 1 pound OC emissions/pound ink usage [emissions rate equals usage rate];
M = 3 pounds/day OCs from cleanup [maximum cleanup material usage per maximum web production, assumes OC emissions rate equals cleanup material usage rate];
T = 365 days/year [unrestricted operating schedule]; and
W = 1 ton/2000 pounds [weight conversion].

b. Emissions Limitation: 9.5 tpy individual HAPs, based upon a rolling, 12-month summation of the monthly emissions from this facility (R001 through R005, the two Indigo Digital Print Presses, the Narrow Web Hot Melt Coater, and the R&D Lab)
Applicable Compliance Method: Compliance shall be based upon the record keeping requirements of section C.2 above.

F. Miscellaneous Requirements

1. All of the terms and conditions of this permit are federally enforceable.

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.

Operations, Property, and/or Equipment		Applicable Rules/Requirements
R004 (Thieme 46x110 Silk Screen Press) sheetfed & non continuous roll fed web (including vinyl, textiles, paper, corrugate, and other substrates) silk screen printing line employing solvent inks dried by a natural gas-fired oven with a maximum heat input of less than 0.5 mmBtu/hour & UV inks cured by an ultraviolet radiation oven; air emissions of organic compounds (OCs) uncontrolled and vented from ovens to a stack; application includes facility-requested federally enforceable Title V Synthetic Minor (TVSM) material usage restrictions to limit the facility's potential to emit (PTE) hazardous air pollutants (HAPs) below the applicable Title V emissions threshold of 10 tpy for any individual HAP.	Presses, (1) Narrow Web Hot Melt Coater, and (1) R&D Lab, is a natural minor source of OC and combined HAP emissions (i.e., unrestricted and uncontrolled PTE less than 100 tpy OCs and 25 tpy combined HAPs).	OAC rule 3745-31-05(A)(3) OAC rule 3745-35-07(B)
Note: This facility, which includes R001 through R005 and (4) de minimis (per OAC rule 3745-15-05) emissions units, including (2) Indigo Digital Print		OAC rule 3745-21-07(G)

Applicable Emissions Limitations/Control Measures
OC emissions from inks, as applied after final thinning, and cleanup shall not exceed 85.8 lbs/day & 15.7 tpy.
No photochemically reactive materials (PRMs), as defined in OAC rule 3745-21-01(C)(5), shall be employed in this emissions unit.
The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-35-07(B), and Part II, Sections A.2 and B.1 below.
The facility shall limit emissions of any individual HAP to no more than 9.5 tpy, based upon a rolling, 12-month summation of the monthly emissions, per the federally enforceable material usage restrictions of Part II, Section B.1 below.
Exempt from the requirements of OAC rule 3745-21-07(G)(2) per OAC rule 3745-21-07(G)(9).

2. Additional Terms and Conditions

2.a The 85.8 lbs/day & 15.7 tpy OC emissions limitations regulated per OAC rule 3745-31-05(A)(3) are based upon accepted USEPA potential to emit procedures for this emissions unit. Therefore, no associated record keeping or reporting are required to demonstrate compliance with these emissions limits.

However, if any proposed change(s), such as with production capacity, the types and/or quantities of materials used or processed, or anything else that increase(s) the potential emissions of any air pollutant, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).

2.b As a way to reduce air emissions, all inks, coatings, thinners, cleanup solvents/rags, and all other organic solvent containing materials shall be properly identified and held in tightly closed containers at all times when not in use or waiting for appropriate off-site disposal.

B. Operational Restrictions

1. The maximum annual individual HAP material usage* (from inks, coatings, thinners, and cleanup materials) for the facility (R001 through R005 and the two Indigo Digital Print Presses, the Narrow Web Hot Melt Coater, and the R&D Lab) shall not exceed 9.5 tons, based upon a rolling, 12-month summation of the monthly individual HAP material usage figures.

*Annual individual HAP material usage rate (input) is equivalent to an annual individual HAP emissions rate and is based upon the solvent in the materials employed or applied being emitted.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the individual HAP material usage levels specified in the following table:

Month(s)	Maximum Allowable Cumulative individual HAP material Usage (tons)
1	0.8
1-2	1.6
1-3	2.4
1-4	3.2
1-5	4.0
1-6	4.8
1-7	5.6

1-8	6.4
1-9	7.2
1-10	8.0
1-11	8.8
1-12	9.5

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual individual HAP material usage limitation shall be based upon a rolling, 12-month summation of the monthly individual HAP material usage figures.

C. Monitoring and/or Recordkeeping Requirements

1. On any day the permittee employs any photochemically reactive material(s) in this emissions unit, as defined in OAC rule 3745-21-01(C)(5), the following information shall be collected and recorded:

   a. the company identification of each liquid organic material, excluding non photochemically reactive cleanup materials, employed in the emissions unit during each such day;

   b. the total quantity of liquid organic material(s) emitted, in pounds, excluding non photochemically reactive cleanup materials, from the emissions unit during each such day;

   c. the actual number of hours of operation of the emissions unit during each such day; and

   d. the average hourly rate of liquid organic material(s) emitted, in pounds/hour, excluding non photochemically reactive cleanup materials, from the emissions unit during each such day, i.e., d = b/c.

2. The permittee shall collect/record the following information each month for the facility (R001 through R005, the two Indigo Digital Print Presses, the Narrow Web Hot Melt Coater, and the R&D Lab):

   a. the name and identification number of each ink, coating, thinner, and cleanup material employed;

   b. the weight, in pounds per month, of each ink, as applied;

   c. the weight, in pounds per month, of each coating, as applied;

   d. the weight, in pounds per month, of each thinner, as applied;

   e. the weight, in pounds per month, of each cleanup material, as applied;

   f. the individual HAP content for each HAP of each ink, as applied, in percent by weight;

g. the individual HAP content for each HAP of each coating, as applied, in percent by weight;

h. the individual HAP content for each HAP of each thinner, as applied, in percent by weight;

i. the individual HAP content for each HAP of each cleanup material, as applied, in percent by weight;

j. the total individual HAP material usage for each HAP of all inks, as applied, in pounds per month, i.e., j = sum[b x f] for all inks;

k. the total individual HAP material usage for each HAP of all coatings, as applied, in pounds per month, i.e., k = sum[c x g] for all coatings;

l. the total individual HAP material usage for each HAP of all thinners, as applied, in pounds per month, i.e., l = sum[d x h] for all thinners;

m. the total individual HAP material usage for each HAP of all cleanup materials, as applied, in pounds per month, i.e., m = sum[e x i] for all cleanup materials;

n. the total individual HAP material usage for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per month, i.e., n = [j + k + l + m]/2000;

o. the total individual HAP emissions for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per month, i.e., o = n, since emissions rate equals usage rate;

p. the rolling, 12-month summation of the monthly individual HAP material usage rates for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per year;

q. the rolling, 12-month summation of the monthly individual HAP emissions rates for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per year, i.e., q = p, since emissions rate equals usage rate.

3. The permit to install for this emissions unit was evaluated based on the actual process 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 Toxics 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(s):

Pollutant: ethylene glycol monobutyl ether (CAS 111-76-2)
TLV (ug/m3): 100,000
Maximum Hourly Emission Rate (lbs/hr): 3.55
Predicted 1-Hour Maximum Ground-Level Concentration at 39 m (ug/m3): 804
MAGLC (ug/m3): 2381

4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics 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 Toxics Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxics Policy" include the following:

   i. changes in the composition of the materials used (process materials and 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;

   ii 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

   iii 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 Toxics Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

5. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the emissions unit, if changed as outlined above, will still satisfy the "Air Toxics 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 Toxics 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 Toxics Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify the days during which photochemically reactive materials were employed in the emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of material(s) emitted in pounds, hourly and daily, during each such day.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the facility 9.5 tpy individual HAP material usage restriction using the methodology specified in Section C.2 above, as well as the corrective actions that were taken to achieve compliance.

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the facility 9.5 tpy individual HAP emissions limitation using the methodology specified in Section C.2 above, as well as the corrective actions that were taken to achieve compliance.

4. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition 2 of this permit.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

   a. Emissions Limitations: 85.8 lbs/day & 15.7 tpy of OCs (emissions unit)

      Applicable Compliance Method: The above emissions limitations were established based on the unrestricted/uncontrolled potential to emit, as shown in the following equations, using company-specified process data:

      D = P*I*H*E + M; and
      Y = D*T*W

      Where,

      D = 85.8 pounds/day of OCs [unrestricted/uncontrolled daily potential to emit];
      Y = 15.7 tons/year of OCs [unrestricted/uncontrolled yearly potential to emit];

P = 518,400 square inches web/hour [maximum production capacity];
I = 0.000006898 pound ink/square inch web [maximum process factor];
H = 24 hours/day [continuous operations];
E = 1 pound OC emissions/pound ink usage [emissions rate equals usage rate];
M = 3 pounds/day OCs from cleanup [maximum cleanup material usage per maximum web production, assumes OC emissions rate equals cleanup material usage rate];
T = 365 days/year [unrestricted operating schedule]; and
W = 1 ton/2000 pounds [weight conversion].

b. Emissions Limitation: 9.5 tpy individual HAPs, based upon a rolling, 12-month summation of the monthly emissions from this facility (R001 through R005, the two Indigo Digital Print Presses, the Narrow Web Hot Melt Coater, and the R&D Lab)
Applicable Compliance Method: Compliance shall be based upon the record keeping requirements of section C.2 above.

F. Miscellaneous Requirements

1. All of the terms and conditions of this permit are federally enforceable.

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.

Operations, Property, and/or Equipment	Presses, (1) Narrow Web Hot Melt Coater, and (1) R&D Lab, is a natural minor source of OC and combined HAP emissions (i.e., unrestricted and uncontrolled PTE less than 100 tpy OCs and 25 tpy combined HAPs).	Applicable Rules/Requirements
R005 (M&R Silk Screen Press) sheetfed & non continuous roll fed web (including vinyl, textiles, paper, corrugate, and other substrates) silk screen printing line employing solvent inks dried by a natural gas-fired oven with a maximum heat input of less than 0.5 mmBtu/hour & UV inks cured by an ultraviolet radiation oven; air emissions of organic compounds (OCs) uncontrolled and vented from ovens to a stack; application includes facility-requested federally enforceable Title V Synthetic Minor (TVSM) material usage restrictions to limit the facility's potential to emit (PTE) hazardous air pollutants (HAPs) below the applicable Title V emissions threshold of 10 tpy for any individual HAP.		OAC rule 3745-31-05(A)(3)
		OAC rule 3745-35-07(B)
Note: This facility, which includes R001 through R005 and (4) de minimis (per OAC rule 3745-15-05) emissions units, including (2) Indigo Digital Print		OAC rule 3745-21-07(G)

Applicable Emissions Limitations/Control Measures
OC emissions from inks, as applied after final thinning, and cleanup shall not exceed 85.2 lbs/day & 15.6 tpy.
No photochemically reactive materials (PRMs), as defined in OAC rule 3745-21-01(C)(5), shall be employed in this emissions unit.
The requirements of OAC rule 3745-31-05(A)(3) also include compliance with the requirements of OAC rule 3745-35-07(B), and Part II, Sections A.2 and B.1 below.
The facility shall limit emissions of any individual HAP to no more than 9.5 tpy, based upon a rolling, 12-month summation of the monthly emissions, per the federally enforceable material usage restrictions of Part II, Section B.1 below.
Exempt from the requirements of OAC rule 3745-21-07(G)(2) per OAC rule 3745-21-07(G)(9).

2. Additional Terms and Conditions

2.a The 85.2 lbs/day & 15.6 tpy OC emissions limitations regulated per OAC rule 3745-31-05(A)(3) are based upon accepted USEPA potential to emit procedures for this emissions unit. Therefore, no associated record keeping or reporting are required to demonstrate compliance with these emissions limits.

However, if any proposed change(s), such as with production capacity, the types and/or quantities of materials used or processed, or anything else that increase(s) the potential emissions of any air pollutant, then the permittee shall apply for and obtain either a modification to the permit to install or a new final permit to install prior to the change(s).

2.b As a way to reduce air emissions, all inks, coatings, thinners, cleanup solvents/rags, and all other organic solvent containing materials shall be properly identified and held in tightly closed containers at all times when not in use or waiting for appropriate off-site disposal.

B. Operational Restrictions

1. The maximum annual individual HAP material usage* (from inks, coatings, thinners, and cleanup materials) for the facility (R001 through R005 and the two Indigo Digital Print Presses, the Narrow Web Hot Melt Coater, and the R&D Lab) shall not exceed 9.5 tons, based upon a rolling, 12-month summation of the monthly individual HAP material usage figures.

*Annual individual HAP material usage rate (input) is equivalent to an annual individual HAP emissions rate and is based upon the solvent in the materials employed or applied being emitted.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the individual HAP material usage levels specified in the following table:

Month(s)	Maximum Allowable Cumulative individual HAP material Usage (tons)
1	0.8
1-2	1.6
1-3	2.4
1-4	3.2
1-5	4.0
1-6	4.8
1-7	5.6

1-8	6.4
1-9	7.2
1-10	8.0
1-11	8.8
1-12	9.5

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual individual HAP material usage limitation shall be based upon a rolling, 12-month summation of the monthly individual HAP material usage figures.

C. Monitoring and/or Recordkeeping Requirements

1. On any day the permittee employs any photochemically reactive material(s) in this emissions unit, as defined in OAC rule 3745-21-01(C)(5), the following information shall be collected and recorded:

   a. the company identification of each liquid organic material, excluding non photochemically reactive cleanup materials, employed in the emissions unit during each such day;

   b. the total quantity of liquid organic material(s) emitted, in pounds, excluding non photochemically reactive cleanup materials, from the emissions unit during each such day;

   c. the actual number of hours of operation of the emissions unit during each such day; and

   d. the average hourly rate of liquid organic material(s) emitted, in pounds/hour, excluding non photochemically reactive cleanup materials, from the emissions unit during each such day, i.e., d = b/c.

2. The permittee shall collect/record the following information each month for the facility (R001 through R005, the two Indigo Digital Print Presses, the Narrow Web Hot Melt Coater, and the R&D Lab):

   a. the name and identification number of each ink, coating, thinner, and cleanup material employed;

   b. the weight, in pounds per month, of each ink, as applied;

   c. the weight, in pounds per month, of each coating, as applied;

   d. the weight, in pounds per month, of each thinner, as applied;

e. the weight, in pounds per month, of each cleanup material, as applied;

f. the individual HAP content for each HAP of each ink, as applied, in percent by weight;

g. the individual HAP content for each HAP of each coating, as applied, in percent by weight;

h. the individual HAP content for each HAP of each thinner, as applied, in percent by weight;

i. the individual HAP content for each HAP of each cleanup material, as applied, in percent by weight;

j. the total individual HAP material usage for each HAP of all inks, as applied, in pounds per month, i.e., j = sum[b x f] for all inks;

k. the total individual HAP material usage for each HAP of all coatings, as applied, in pounds per month, i.e., k = sum[c x g] for all coatings;

l. the total individual HAP material usage for each HAP of all thinners, as applied, in pounds per month, i.e., l = sum[d x h] for all thinners;

m. the total individual HAP material usage for each HAP of all cleanup materials, as applied, in pounds per month, i.e., m = sum[e x i] for all cleanup materials;

n. the total individual HAP material usage for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per month, i.e., n = [j + k + l + m]/2000;

o. the total individual HAP emissions for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per month, i.e., o = n, since emissions rate equals usage rate;

p. the rolling, 12-month summation of the monthly individual HAP material usage rates for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per year;

q. the rolling, 12-month summation of the monthly individual HAP emissions rates for each HAP of all inks, coatings, thinners, and cleanup materials, as applied, in tons per year, i.e., q = p, since emissions rate equals usage rate.

3. The permit to install for this emissions unit was evaluated based on the actual process 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 Toxics 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(s):

Pollutant: ethylene glycol monobutyl ether (CAS 111-76-2)
TLV (ug/m3): 100,000
Maximum Hourly Emission Rate (lbs/hr): 3.55
Predicted 1-Hour Maximum Ground-Level Concentration at 39 m (ug/m3): 804
MAGLC (ug/m3): 2381

4. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxics 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 Toxics Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxics Policy" include the following:

   i. changes in the composition of the materials used (process materials and 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;

   ii 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

   iii 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 Toxics Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

5. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the emissions unit, if changed as outlined above, will still satisfy the "Air Toxics 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 Toxics 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 Toxics Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify the days during which photochemically reactive materials were employed in the emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s) and the estimated total quantity of material(s) emitted in pounds, hourly and daily, during each such day.

2. The permittee shall submit deviation (excursion) reports that identify all exceedances of the facility 9.5 tpy individual HAP material usage restriction using the methodology specified in Section C.2 above, as well as the corrective actions that were taken to achieve compliance.

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the facility 9.5 tpy individual HAP emissions limitation using the methodology specified in Section C.2 above, as well as the corrective actions that were taken to achieve compliance.

4. The deviation (excursion) reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition 2 of this permit.

E. Testing Requirements

1. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

   a. Emissions Limitations: 85.2 lbs/day & 15.6 tpy of OCs (emissions unit)

      Applicable Compliance Method: The above emissions limitations were established based on the unrestricted/uncontrolled potential to emit, as shown in the following equations, using company-specified process data:

      D = P*I*H*E + M; and
      Y = D*T*W

      Where,

      D = 85.2 pounds/day of OCs [unrestricted/uncontrolled daily potential to emit];
      Y = 15.6 tons/year of OCs [unrestricted/uncontrolled yearly potential to emit];

P = 514,800 square inches web/hour [maximum production capacity];
I = 0.000006898 pound ink/square inch web [maximum process factor];
H = 24 hours/day [continuous operations];
E = 1 pound OC emissions/pound ink usage [emissions rate equals usage rate];

M = 3 pounds/day OCs from cleanup [maximum cleanup material usage per maximum web production, assumes OC emissions rate equals cleanup material usage rate];
T = 365 days/year [unrestricted operating schedule]; and
W = 1 ton/2000 pounds [weight conversion].

F. Miscellaneous Requirements

1. All of the terms and conditions of this permit are federally enforceable.