☒ **Synthetic Minor Determination and/or** ☐ **Netting Determination**
Permit To Install **04-01432**

A. Source Description

North Toledo Graphics (NTG), LLC is a synthetic minor, printing facility located in Lucas county. This PTI is for the installation of a Heatset Web Offset printing Line, K007 to be used for the production of advertisements and/or miscellaneous printed material on rolled stock. The unit has 1 print station and 1 dryer to be controlled by a regenerative thermal oxidizer (RTO). The RTO also controls Press Lines #2 and #5 and was designed for the future installation of additional lines. Sources of emissions include:

1. Printing Inks
2. Fountain Solutions
3. Combustion products from natural gas products
4. Combustion products from the incinerator (There will be no increase in emissions due to the fact the incinerator emissions were previously calculated at a maximum burn rate for 8760 hr/yr.)

B. Facility Emissions and Attainment Status

The existing facility is a minor source for all criteria air pollutants and is a minor source of HAPs.

Pollutant	Significant Net Emission Increase Levels	Attainment Status
$PM_{2.5}$	250 TPY	attainment
PM_{10}	250 TPY	unclassifiable
SO_2	250 TPY	attainment
VOC	100 TPY	non-attainment
NOx	250 TPY	unclassifiable/attainment
CO	250 TPY	unclassifiable/attainment

C. Source Emissions

NTG expects to run K007 20 hrs/day, 6 day/wk, and 50 wks/yr. The maximum usage will be 850,000 lb/yr Ink, 2900 gal/yr Cleanup materials and 3200 gal/yr Fountain Solution. Ink materials have VOC concentrations that vary from 31.13%-42.11%. Cleanup materials at 99.5% VOC with 6.6 lb VOC/gal. The fountain solution is at 6% VOC and 94% H20 or 0.54 lb/gal. The applicant has reported a 95% destruction efficiency for the RTO.

The emissions from the line consist of both stack and fugitive emissions. The stack emissions from the line are combined with the combustion products of the dryer vented to a regenerative thermal oxidizer (RTO). The RTO also serves as emissions control for emissions units K002 and K005. To facilitate the compliance method requirements, allowable emissions for K007 will be broken down into 4 categories:

stack emissions: **consists of ink and fountain solution emissions that pass through the dryer and controlled by the RTO.**

fugitive emissions: **consists of fugitive fountain solution and cleanup solvent emissions.**

dryer: **consists of combustion products from the Press Line #7 dryer (4.6 mmBtu/hr) that are vented to the RTO.**

RTO: **consists of combustion products from the RTO (4.0 mmBtu/hr) serving K002, K005 and K007.**

K007 Allowable Emissions Summary

	CO	PE	NOx	SO_2	OC
Stack, lb/hr					2.4
Stack, ton/yr					7.19
Fugitive, lb/hr					1.69
Fugitive, ton/yr					5.1
Dryer, lb/hr	0.38	0.01	0.45	0.002	0.03
Dryer, ton/yr	1.7	0.04	2.0	0.01	0.1
RTO, lb/hr	0.33	0.01	0.39	0.002	0.02
RTO, ton/yr	1.4	0.04	1.7	0.01	0.09
Total, tons/yr	3.1	0.08	3.7	0.02	12.48

This PTI is being issued as a synthetic minor to make the ink, fountain solution, and cleanup solvent usage limitations federally enforceable. Also, a facility-wide HAP limitation of 9.9 tons/yr individual and 24.9 tons/yr total HAP is added to avoid being a major source of HAP.

Total facility VOC emissions: K002 + K005 = 33.79 tons/yr VOC
K007 = 12.48 tons/yr
Total = 33.79 + 12.48 = 46.27 tons/yr

D. Conclusion

Hazardous Air Pollutant Emission Summary

K007 From table above, total HAPs include: ethylene glycol, ethylene glycol n-butyl ether, xylene and cumene = 0.14 + 0.14 + 0.06 + 0.06 = 0.4 ton/yr based on the current liquid organic materials used.

K002 Maximum HAP emissions are reported by the company to be the same as for K005 (4.4 tons/yr)

K005 Calculations contained in the PTI writeup for PTI 04-1113, issued 5/13/1998, indicate that maximum HAP emissions are: Ethylene glycol n-butyl ether 0.56 lb/hr; ethylene glycol 0.045 lb/hr; xylene 0.22 lb/hr; and cumene 0.17 lb/hr for total potential HAP emissions of 4.4 tons/yr.

Total HAP emissions = 0.4 + 4.4 + 4.4 = 9.2 tons/yr

The total facility HAP emissions will be restricted to 9.9 tons/yr of any individual HAP and 25 tons/yr of total HAPs so that the facility will not be a major source of HAPs.

State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

RE: DRAFT PERMIT TO INSTALL
LUCAS COUNTY
Application No: 04-01432
Fac ID: 0448010300

CERTIFIED MAIL

Y	TOXIC REVIEW
	PSD
Y	SYNTHETIC MINOR
	CEMS
	MACT
	NSPS
	NESHAPS
	NETTING
	MAJOR NON-ATTAINMENT
	MODELING SUBMITTED
	GASOLINE DISPENSING FACILITY

DATE: 2/28/2006

North Toledo Graphics, LLC
Gregory Tremonti
5225 Telegraph Rd
Toledo, OH 43612

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 of 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 **$400** 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

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

CC: **USEPA** **TDES** **Toledo Met Area Council of Govs** **IN** **MI**

LUCAS COUNTY

PUBLIC NOTICE
ISSUANCE OF DRAFT PERMIT TO INSTALL **04-01432** FOR AN AIR CONTAMINANT SOURCE FOR
North Toledo Graphics, LLC

On 2/28/2006 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **North Toledo Graphics, LLC**, located at **5225 Telegraph Rd, Toledo**, Ohio.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 04-01432:

Installation of a Goss C450 Heatset Offset Web Pringting Press and Oven Press Unit dryer.

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.

Karen Granata, Toledo Department of Environmental Services, 348 South Erie Street, Toledo, OH 43602
[(419)936-3015]

DRAFT PERMIT TO INSTALL 04-01432

Application Number:	04-01432
Facility ID:	0448010300
Permit Fee:	**To be entered upon final issuance**
Name of Facility:	North Toledo Graphics, LLC
Person to Contact:	Gregory Tremonti
Address:	5225 Telegraph Rd Toledo, OH 43612

Location of proposed air contaminant source(s) [emissions unit(s)]:
5225 Telegraph Rd
Toledo, Ohio

Description of proposed emissions unit(s):
Installation of a Goss C450 Heatset Offset Web Pringting Press and Oven Press Unit dryer.

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. State and Federally Enforceable Permit-To-Install General Terms and Conditions

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.

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

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

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

ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written

reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

iv. If this permit is for an emissions unit located at a Title V facility, then each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

2. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06**.**

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

3. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

7. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable

permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

10. Permit-To-Operate Application

a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

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

12. Air Pollution Nuisance

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

13. Permit-To-Install

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to “installation” of “any air contaminant source” as defined in OAC rule 3745-31-01, or “modification”, as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

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

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

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

3. Permit Transfers

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

4. Authorization To Install or Modify

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director

within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

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

6. Public Disclosure

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

7. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

8. Construction Compliance Certification

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

9. Additional Reporting Requirements When There Are No Deviations of <u>Federally Enforceable</u> Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The

reports shall be submitted quarterly (i.e., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit-To-Install Summary of Allowable Emissions

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

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

Pollutant	Tons Per Year
CO	5.1 (1.7 increase)
PE	0.19 (0.04 increase)
NOx	6.88 (2 increase)
SO_2	0.05 (0.01 increase)
VOC	46.27 (12.48 increase)

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

None

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

None

PART 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	Applicable Emissions Limitations/Control Measures
K002 - Modification (2) Heatset Offset Web Lithographic Printing Presses and (2) 1.725 mmBtu/hr natural gas-fired dryers. Press Units F & G, Dryers 1 & 2	OAC rule 3745-31-05 OAC rule 3745-21-07(G)	Use of printing ink and fountain solutions that are non-photochemically reactive. Organic compound (OC) emissions shall not exceed 7.77 lbs/hr and 16.24 tons/yr Particulate emissions (PE) shall not exceed 0.007 lb/hr and 0.03 ton/yr Sulfur dioxide (SO_2) emissions shall not exceed 0.005 lb/hr and 0.02 ton/yr Nitrogen oxides (NOx) emissions shall not exceed 0.34 lb/hr and 1.5 tons/yr Carbon monoxide (CO) emissions shall not exceed 0.29 lb/hr and 1.3 tons/yr
	OAC rule 3745-31-05(C)	95% destruction efficiency for OC for the incinerator.
Combustion product emissions from 4.0 mmBtu/hr regenerative thermal oxidizer serving as control for emissions units K002, K005 and K007	OAC rule 3745-31-05	See section A.2.b Particulate emissions (PE) shall not exceed 0.01 lb/hr and 0.04 ton/yr

		Sulfur Dioxide (SO2) emissions shall not exceed 0.002 lb/hr and 0.01 ton/yr Nitrogen Oxide (NOx) emissions shall not exceed 0.39 lb/hr and 1.7 tons/yr Carbon Monoxide (CO) emissions shall not exceed 0.33 lb/hr and 1.4 tons/yr VOC emissions shall not exceed 0.02 lb/hr and 0.09 ton/yr Visible emissions from the stack serving this emissions unit shall not exceed 5% opacity as a 6-minute average.
	OAC rule 3745-17-07(A)(1)	See section A.2.a
	OAC rule 3745-17-11(B)(1)	See section A.2.a
	OAC rule 3745-18-06(A)	Exemption (see section A.2.c)
	OAC rule 3745-21-08(B)	See section A.2.d
	OAC rule 3745-23-06(B)	See section A.2.e

2. Additional Terms and Conditions

2.a The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.b The combined emissions from all emissions units at this facility shall not exceed 9.9 tons per rolling 12-month period of any individual hazardous air pollutant and 24.9 tons of total hazardous air pollutants per rolling 12-month period.

2.c OAC rule 3745-18-06(A) does not establish SO2 emission limitations for the fuel burning equipment associated with this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned

in this emission unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

2.d The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by complying with all applicable rules.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.e The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

B. Operational Restrictions

1. The permittee shall employ coatings and materials as specified below, based on a volume-weighted average:

   Printing inks: 70,833 lbs/month, with a maximum of 40% VOC by weight.

   Fountain solution: 183.3 gals/month, at a maximum of 9% VOC by volume, and a maximum density of 8.92 lbs/gal.

   Clean-up Material: 166.7 gals/month, at a maximum of 97% VOC by volume, and a maximum density of 6.9 lbs/gal.

2. The individual HAP and total HAP, combined, emission rates for all emissions units at the facility shall not exceed 9.9 and 24.9 tons per year, respectively, based upon a rolling, 12-month summation of emission rates.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each month for the printing line:

   a. The company identification for each material employed (i.e.printing ink, fountain solution, clean-up material).

   b. A determination of the reactivity of each ink and fountain solution used in this emissions unit, i.e., photochemically reactive or non-photochemically reactive.

   c. The number of pounds of each ink employed, and the number of gallons of fountain solution and cleanup material employed.

   d. the total HAP content of each ink employed in percent by weight and of each fountain solution and cleanup material employed in pounds per gallon; and

   e. the individual HAP content of each ink in percent by weight and of each fountain solution and cleanup material in pounds per gallon.

   f. the rolling, 12-month summation of total HAP emissions from all emissions units located at this facility, in tons; and

   g. the rolling, 12-month summation of individual HAP emissions from all emissions units located at this facility, in tons.

   [Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.]

2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature of the exhaust gases from the thermal incinerator when the source is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ±1 percent of the temperature being measured or ±5 degrees, whichever is greater. The temperature monitor and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

3. The permittee shall collect and record the following information each day for the control equipment:

   a. A log of operating time for the capture (collection) system, control device, monitoring equipment, and the associated sources.

   b. The average temperature of the exhaust gasses from the thermal incinerator during each of the (8) 3-hour blocks of time during the day.

D. Reporting Requirements

1. The permittee shall submit quarterly written deviation (excursion) reports which include the following information:

   a. all monthly records which show that the material usage or composition exceeds the limitations specified in Section B.1;

   b. all 3-hour blocks of time during which the average temperature of the exhaust gases was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the until was in compliance;

   c. all exceedances of the rolling, 12-month total HAP emission limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative total HAP emission limitation set forth in section B.2 of this permit; and

   d. all exceedances of the rolling, 12-month individual HAP emission limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative individual HAP emission limitation set forth in section B.2 of this permit.

   These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by April 30, July 31, October 31 and January 31 of each year and shall cover the previous calendar quarter. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period.

E. Testing Requirements

1. Compliance with the following emission limitations shall be determined in accordance with the following method(s):

   a. Emission Limitation:

      95% destruction efficiency

      Applicable Compliance Method:

      If required, Methods 1thru 4 and 25A of 40 CFR Part 60, Appendix A shall be used to demonstrate compliance. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration of the potential presence of interfering gases.

To convert a mass emission value from VOC as carbon to VOC, divide the mass emission value of VOC as carbon by the weight fraction of carbon in the average molecular weight of the VOC emission. The determination of this weight fraction of carbon may be based on standard analytical techniques or material formulation data.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

b. Emission Limitation:

9.16 lbs/hr OC

Applicable compliance method:

This emission limitation was based on the maximum combined stack and fugitive emissions from ink, fountain solution and cleanup solvent using the calculation method specified in Ohio EPA Engineering Guide #56 dated June 15, 1999. If required, the permittee shall demonstrate compliance with this emission limitation through the use of Method 25A of 40 CFR Part 60, Appendix A to determine the controlled stack emissions. Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the VOC content of the liquid organic materials used. Using the Engineering Guide #56 calculation, add the hourly fugitive emissions based on the actual liquid organic material usage during the stack emissions testing to the controlled stack emission rate to determine the total hourly OC emissions from the line.

c. Emission Limitation:

18.32 tons/yr OC

Applicable Compliance Method:

This emission limitation was based on the combined stack and fugitive emissions using the calculation contained in Engineering Guide #56, the operational restrictions contained in Section B.1 and the 95% destruction efficiency requirement. Compliance with the Operational Restrictions in B.1 and the 95% destruction efficiency requirement shall serve as demonstration of compliance with the annual emission limitation.

d. Emission Limitation:

0.29 pound of CO per hour from the dryers

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 84 pounds of CO emissions per million standard cubic feet by a heating value of 1,020 Btus per standard cubic foot and multiply the result by the maximum heat input capacity of (2) x 1.725 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

e. Emission Limitation:

1.3 tons of CO per year from the dryers

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.29 pound of CO per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

f. Emission Limitation:

0.34 pound of NOx per hour from the dryers

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 100 pounds of NOx emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of (2) x 1.725 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 7 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

g. Emission Limitation:

1.5 tons of NOx per year from the dryers

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.34 pound of NOx per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

h. Emission Limitation:

0.007 pound of PE per hour from the dryers

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 1.9 pounds of PE per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of (2) x 1.725 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

i. Emission Limitation:

0.03 ton of PE per year from the dryers

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.007 pound of PE per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

j. Emission Limitation:

0.002 pound of SO2 per hour from the dryers

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 0.6 pounds of SO2 emissions per million standard cubic feet by a heating

value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of (2) x 1.725 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

k. Emission Limitation:

0.009 ton of SO2 per year from the dryers

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.002 pound of SO2 per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

l. Emission Limitation:

The combined emissions from all emissions units at the facility shall not exceed 9.9 tons per rolling, 12-month period for any single HAP and 24.9 tons per rolling, 12-month period for any combination of HAPs.

Applicable Compliance Method:

The monitoring and recordkeeping requirement C.1 will be used to demonstrate compliance.

m. Emission Limitation:

0.33 pound of CO per hour from thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 84 pounds of CO emissions per million standard cubic feet by a heating value of 1,020 Btus per standard cubic foot and multiply the result by the maximum heat input capacity of 4 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10

of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

n. Emission Limitation:

1.4 tons of CO per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.33 pound of CO per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

o. Emission Limitation:

0.39 pound of NOx per hour from the thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 100 pounds of NOx emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 7 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

p. Emission Limitation:

1.7 tons of NOx per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.39 pound of NOx per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

q. Emission Limitation:

0.01 pound of PE per hour from the thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 1.9 pounds of PE per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

r. Emission Limitation:

0.04 ton of PE per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.01 pound of PE per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

s. Emission Limitation:

0.002 pound of SO2 per hour from the thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 0.6 pounds of SO2 emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

t. Emission Limitation:

0.01 ton of SO2 per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.002 pound of SO2 per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

u. Emission Limitation:

0.02 pound of VOC per hour from the thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 5.5 pounds of VOC emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

v. Emission Limitation:

0.09 ton of VOC per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.02 pound of VOC per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

w. Emission Limitation:

5% opacity as a 6-minute average from the thermal oxidizer stack

Applicable Compliance Method:

If required, compliance shall be demonstrated using Method 9 of 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

1. The terms and conditions contained in this Permit to Install for emissions unit K002 supercede all requirements for K002 contained in PTI 04-934, 04-971, and 04-1051.

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	Applicable Emissions Limitations/Control Measures
K005 - Modification Rockwell C450 Heatset Offset Web Lithographic Printing Press and 1.92 mmBtu/hr natural gas-fired dryer/Line No. 5	OAC rule 3745-31-05(A)(3) OAC rule 3745-21-07(G)	Use of printing ink and fountain solutions that are non-photochemically reactive. Organic compound (OC) emissions shall not exceed 9.16 lbs/hr and 18.32 tons/yr Particulate emissions (PE) shall not exceed 0.02 lb/hr and 0.08 ton/yr Sulfur dioxide (SO_2) emissions shall not exceed 0.002 lb/hr and 0.01 ton/yr Nitrogen oxides (NOx) emissions shall not exceed 0.38 lb/hr and 1.68 tons/yr Carbon monoxide (CO) emissions shall not exceed 0.16 lb/hr CO and 0.7 tons/yr
	OAC rule 3745-31-05(C)	95% destruction efficiency for OC for the incinerator.
Combustion product emissions from 4.0 mmBtu/hr regenerative thermal oxidizer serving as control for emissions units K002, K005 and K007	OAC rule 3745-31-05(A)(3)	See section A.2.b Particulate emissions (PE) shall not exceed 0.01 lb/hr and 0.04 ton/yr

		Sulfur Dioxide (SO2) emissions shall not exceed 0.002 lb/hr and 0.01 ton/yr Nitrogen Oxide (NOx) emissions shall not exceed 0.39 lb/hr and 1.7 tons/yr Carbon Monoxide (CO) emissions shall not exceed 0.33 lb/hr and 1.4 tons/yr VOC emissions shall not exceed 0.03 lb/hr and 0.1 ton/yr Visible emissions from the stack serving this emissions unit shall not exceed 5% opacity as a 6-minute average.
	OAC rule 3745-17-07(A)(1)	See section A.2.a
	OAC rule 3745-17-11(B)(1)	See section A.2.a
	OAC rule 3745-18-06(A)	Exemption (see section A.2.c)
	OAC rule 3745-21-08(B)	See section A.2.d
	OAC rule 3745-23-06(B)	See section A.2.e

2. Additional Terms and Conditions

2.a The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.b The combined emissions from all emissions units at this facility shall not exceed 9.9 tons per rolling 12-month period of any individual hazardous air pollutant and 24.9 tons of total hazardous air pollutants per rolling 12-month period.

2.c OAC rule 3745-18-06(A) does not establish SO2 emission limitations for the fuel burning equipment associated with this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emission unit is the standard, pipeline quality natural gas supplied to

industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

2.d The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by complying with all applicable rules.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.e The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

B. Operational Restrictions

1. The permittee shall employ coatings and materials as specified below, based on a volume-weighted average:

   Printing inks: 70,833 lbs/month, with a maximum of 40% VOC by weight.

   Fountain solution: 233.3 gals/month, at a maximum of 9% VOC by volume.

   Clean-up Material: 216.7 gals/month, at a maximum of 97% VOC by volume.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each month for the printing line:

   a. The company identification for each material employed (i.e.printing ink, fountain solution, clean-up material).

b. A determination of the reactivity of each ink and fountain solution used in this emissions unit, i.e., photochemically reactive or non-photochemically reactive.

c. The number of pounds of each ink employed, and the number of gallons of fountain solution and cleanup material employed.

d. the total HAP content of each ink employed in percent by weight and of each fountain solution and cleanup material employed in pounds per gallon; and

e. the individual HAP content of each ink in percent by weight and of each fountain solution and cleanup material in pounds per gallon.

f. the rolling, 12-month summation of total HAP emissions from all emissions units located at this facility, in tons; and

g. the rolling, 12-month summation of individual HAP emissions from all emissions units located at this facility, in tons.

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.]

2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature of the exhaust gases from the thermal incinerator when the source is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ±1 percent of the temperature being measured or ±5 degrees, whichever is greater. The temperature monitor and recorders shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

3. The permittee shall collect and record the following information each day for the control equipment:

a. A log of operating time for the capture (collection) system, control device, monitoring equipment, and the associated sources.

b. The average temperature of the exhaust gasses from the thermal incinerator during each of the (8) 3-hour blocks of time during the day.

D. Reporting Requirements

1. The permittee shall submit quarterly written deviation (excursion) reports which include the following information:

a. all monthly records which show that the material usage or composition exceeds the limitations specified in Section B.1;

b. all 3-hour blocks of time during which the average temperature of the exhaust gases was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the until was in compliance;

c. all exceedances of the rolling, 12-month total HAP emission limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative total HAP emission limitation set forth in section B.2 of this permit; and

d. all exceedances of the rolling, 12-month individual HAP emission limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative individual HAP emission limitation set forth in section B.2 of this permit.

These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by April 30, July 31, October 31 and January 31 of each year and shall cover the previous calendar quarter. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period.

E. Testing Requirements

1. Compliance with the following emission limitations shall be determined in accordance with the following method(s):

a. Emission Limitation:

95% destruction efficiency

Applicable Compliance Method:

If required, Methods 1thru 4 and 25A of 40 CFR Part 60, Appendix A shall be used to demonstrate compliance. The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration of the potential presence of interfering gases.

To convert a mass emission value from VOC as carbon to VOC, divide the mass emission value of VOC as carbon by the weight fraction of carbon in the average molecular weight of the VOC emission. The determination of this weight fraction of carbon may be based on standard analytical techniques or material formulation data.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

b. Emission Limitation:

9.16 lbs/hr OC

Applicable compliance method:

This emission limitation was based on the maximum combined stack and fugitive emissions from ink, fountain solution and cleanup solvent using the calculation method specified in following Ohio EPA Engineering Guide #56 dated June 15, 1999.

Stack emissions, S, (lbs/hr) from the printing process:

$S = (1- DRE)[0.8 (P) + A_d (FS) + B_d (CS)]$

Fugitive emissions, F, (lbs/hr) from printing process are:

$F = A_f(FS) + B_f(CS)$

where:

DRE = destruction or removal efficiency of control device, expressed as a decimal

P = (ink usage, lbs/hr) X (ink VOC content, % by weight)

FS = (fountain solution usage rate, gal/hr) X (fountain solution VOC content, lbs VOC/gal)

CS = (cleanup solvent usage rate, gal/hr) X (cleanup solvent VOC content, lbs VOC/gal)

A_d = mass fraction of fountain solution VOC routed to dryer and control device;
$A_d = 0.7$

B_d = mass fraction of cleanup solvent routed to dryer and control device;
$B_d = 0.0$

A_f = mass fraction of fountain solution VOC emitted as fugitive;
$A_f = 0.3$

B_f = mass fraction of cleanup solvent emitted as fugitive;
$B_f = 0.5$ (if solvent vapor pressure < 10 mm Hg at 20 deg. C (68 deg. F) and used rags are stored in closed containers)

If required, the permittee shall demonstrate compliance with this emission limitation through the use of the following to be used in the above Engineering Guide #56 calculation:

i. the procedures in Section E.1.a shall be used to determine the actual destruction efficiency;

ii. Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the VOC content of the ink, fountain solution and cleanup solvent used during the test; and

iii. the actual usage rate of ink, fountain solution and cleanup solvent shall be recorded during the test.

The sum of the hourly stack emissions (as calculated by Engineering Guide #56) shall be added to the hourly fugitive emissions (as calculated by Engineering Guide #56) to obtain the total hourly emissions from this emissions unit.

c. Emission Limitation:

18.32 tons/yr OC

Applicable Compliance Method:

This emission limitation was based on the combined stack and fugitive emissions using the calculation contained in Engineering Guide #56, the operational restrictions contained in Section B.1 and the 95% destruction efficiency requirement. Compliance with the Operational Restrictions in B.1 and the 95% destruction efficiency requirement serves as adequate demonstration of compliance with the annual emission limitation.

d. Emission Limitation:

0.002 pound SO2 per hour from the dryer

Applicable Compliance Method:

Divide the AP-42 (10/96 Edition) emission factor of 0.6 pounds of SO2 emissions per million cubic feet by an average natural gas higher heating value of 1020 Btu per standard cubic feet natural gas and then multiply that product by (1.92 x 2) million Btu per hour (the dryer burner size) or use OAC rule 3745-18-04(F).

e. Emission Limitation:

0.01 ton per year SO2 from the dryer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.002 pound of SO2 per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

f. Emission Limitation:

0.02 pound PE per hour from the dryer

Applicable Compliance Method: Divide the AP-42 (7/98 Edition) emission factor of 1.9 pounds of particulate emissions per million cubic feet by an average natural gas higher heating value of 1020 Btu per standard cubic feet natural gas and then multiply that product by (1.92 x 2) million Btu per hour (the dryer burner size) or use OAC rule 3745-17-03(B)(9).

g. Emission Limitation:

0.08 ton PE per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.02 pound of PE per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

h. Emission Limitation:

0.38 pound NOx per hour from the dryer

Applicable Compliance Method:

Divide the AP-42 (10/96 Edition) emission factor of 100 pounds of NOx emissions per million cubic feet by an average natural gas higher heating value of 1020 Btu per standard cubic feet natural gas and then multiply that product by (1.92 x 2) million Btu per hour (the dryer burner size) or use Method 7 of 40 CFR Part 60, Appendix A.

i. Emission Limitation:

1.68 tons NOx per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.38 pound of NOx per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

j. Emission Limitation:

0.16 pound CO per hour from the dryer

Applicable Compliance Method: Divide the AP-42 (7/98 Edition) emission factor of 84 pounds of CO emissions per million cubic feet by an average natural gas higher heating value of 1000 Btu per standard cubic feet natural gas and then multiply that product by 1.92 million Btu per hour (the dryer burner size) or use Method 10 of 40 CFR Part 60, Appendix A.

k. Emission Limitation:

0.7 ton CO per year from the dryer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.16 pound of CO per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

l. Emission Limitation:

The combined emissions from all emissions units at the facility shall not exceed 9.9 tons per rolling, 12-month period for any single HAP and 24.9 tons per rolling, 12-month period for any combination of HAPs.

Applicable Compliance Method:

The monitoring and recordkeeping requirement C.1 will be used to demonstrate compliance.

m. Emission Limitation:

0.33 pound of CO per hour from thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air

Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 84 pounds of CO emissions per million standard cubic feet by a heating value of 1,020 Btus per standard cubic foot and multiply the result by the maximum heat input capacity of 4 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

n. Emission Limitation:

1.4 tons of CO per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.33 pound of CO per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

o. Emission Limitation:

0.39 pound of NOx per hour from the thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 100 pounds of NOx emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 7 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

p. Emission Limitation:

1.7 tons of NOx per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed

as follows: multiply the short term emission rate of 0.39 pound of NOx per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

q. Emission Limitation:

0.01 pound of PE per hour from the thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 1.9 pounds of PE per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

r. Emission Limitation:

0.04 ton of PE per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.01 pound of PE per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

s. Emission Limitation:

0.002 pound of SO2 per hour from the thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 0.6 pounds of SO2 emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

t. Emission Limitation:

0.01 ton of SO2 per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.002 pound of SO2 per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

u. Emission Limitation:

0.02 pound of VOC per hour from the thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 5.5 pounds of VOC emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

v. Emission Limitation:

0.09 ton of VOC per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.02 pound of VOC per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

w. Emission Limitation:

5% opacity as a 6-minute average from the thermal oxidizer stack

Applicable Compliance Method:

If required, compliance shall be demonstrated using Method 9 of 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

1. The permit to install for this emissions unit (K005) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the “worst case” pollutant(s):

Pollutant: Petroleum Distillate

TLV (ug/m3):525,000
Maximum Hourly Emission Rate (lbs/hr):4.78
Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3):30.04
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3):12,500

Pollutant: Ethylene Glycol – Butyl Ether

Pollutant: Cumene

TLV (ug/m3):246,000
Maximum Hourly Emission Rate (lbs/hr):0.17
Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3):102.2
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3):5,857

Pollutant: Trimethylbenzenes

TLV (ug/m3):123,000
Maximum Hourly Emission Rate (lbs/hr):2.18
Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3):1,380
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3):2,930

Pollutant: Aliphatic Naphtha

TLV (ug/m3):423,000
Maximum Hourly Emission Rate (lbs/hr):3.05
Predicted 1 Hour Maximum Ground-Level Concentration (ug/m3):1,943
Maximum Acceptable Ground-Level Concentration (MAGLC) (ug/m3):10,071

3. Any of the following changes may be deemed a "modification" to the emissions unit and, as such, prior notification to and approval from the appropriate Ohio EPA District Office or local air agency are required, including the possible issuance of modifications to this PTI and the operating permit:

   a. Any changes in the composition of the 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 specified above.

   b. Any change to the emissions unit or its exhaust parameters (e.g., increased emission rate, reduction of exhaust gas flow rate, and decreased stack height) that would result in an exceedance of any MAGLC specified in the above table.

   c. A reduction in the TLV by the ACGIH for any of the materials that, at the maximum hourly emission rate specified in the above table, would result in an exceedance of the new MAGLC.

   d. Any change to the emissions unit or its method of operation that would either require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01.

   e. Any change in the composition of the materials, or use of new materials, that would result in the emission of any of the exempted organic compounds included in the definition of "VOC" [OAC rule 3745-21-01(B)(6)].

4. The terms and conditions contained in this Permit to Install for emissions unit K005 supercede all requirements for K005 contained in PTI 04-1113.

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	Applicable Emissions Limitations/Control Measures
K007 - Goss C450 Heatset Offset Web Printing Press and dryer with regenerative thermal oxidizer control	OAC rule 3745-21-07(G)	See sections A.2.a and A.2.f
	OAC rule 3745-31-05(C)	See section A.2.b
stack emissions	OAC rule 3745-31-05(A)(3)	Stack organic compound (OC) emissions shall not exceed 2.4 lbs/hr See section A.2.h
	OAC rule 3745-31-05(C)	Stack OC emissions shall not exceed 7.19 tons per rolling, 12-month period
fugitive emissions	OAC rule 3745-31-05(A)(3)	Fugitive OC emissions shall not exceed 1.69 lbs/hr
	OAC rule 3745-31-05(C)	Fugitive OC emissions shall not exceed 5.1 tons per rolling, 12-month period
Combustion product emissions from 4.6 mmBtu/hr natural gas-fired dryer	OAC rule 3745-31-05(A)(3)	Particulate emissions (PE) shall not exceed 0.01 lb/hr and 0.04 ton/yr Sulfur Dioxide (SO2) emissions shall not exceed 0.002 lb/hr and 0.01 ton/yr

		Nitrogen Oxide (NOx) emissions shall not exceed 0.45 lb/hr and 2.0 tons/yr Carbon Monoxide (CO) emissions shall not exceed 0.38 lb/hr and 1.7 tons/yr VOC emissions shall not exceed 0.03 lb/hr and 0.1 ton/yr Visible emissions from the stack serving this emissions unit shall not exceed 5% opacity as a 6-minute average.
Combustion product emissions from 4.0 mmBtu/hr regenerative thermal oxidizer serving as control for emissions units K002, K005 and K007	OAC rule 3745-17-07(A)(1)	See section A.2.a
	OAC rule 3745-17-11(B)(1)	See section A.2.a
	OAC rule 3745-18-06(A)	Exemption (see section A.2.c)
	OAC rule 3745-21-08(B)	See section A.2.d
	OAC rule 3745-23-06(B)	See section A.2.e
	OAC rule 3745-31-05(A)(3)	CO emissions shall not exceed 0.33 lb/hr and 1.4 tons/yr NOx emissions shall not exceed 0.39 lb/hr and 1.7 tons/yr PE shall not exceed 0.01 lb/hr and 0.04 ton/yr SO_2 emissions shall not exceed 0.002 lb/hr and 0.01 ton/yr VOC emissions shall not exceed 0.02 lb/hr and 0.09 ton/yr Visible emissions shall not exceed 5% opacity as a 6-minute average.
	OAC rule 3745-17-07(A)(1)	See section A.2.a

OAC rule 3745-17-11(B)(1)	See section A.2.a
OAC rule 3745-18-06(A)	Exemption (see section A.2.c)
OAC rule 3745-21-08(B)	See section A.2.d
OAC rule 3745-23-06(B)	See section A.2.e

2. Additional Terms and Conditions

2.a The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.b The combined emissions from all emissions units at this facility shall not exceed 9.9 tons per rolling, 12-month period of any individual hazardous air pollutant and 24.9 tons of total hazardous air pollutants per rolling, 12-month period.

2.c OAC rule 3745-18-06(A) does not establish SO_2 emission limitations for the fuel burning equipment associated with this emissions unit because the emissions unit only employs natural gas as fuel. However, OAC rule 3745-18-06(A) requires that the natural gas being combusted meet certain fuel quality restrictions (a heat content greater than 950 Btu per standard cubic foot and a sulfur content less than 0.6 pound per million standard cubic feet). Because the natural gas being burned in this emission unit is the standard, pipeline quality natural gas supplied to industrial, commercial, and residential users throughout the State, it is assumed that it meets the fuel quality restrictions; and no monitoring, record keeping or reporting requirements are necessary to ensure ongoing compliance with OAC rule 3745-18-06(A).

2.d The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by complying with all applicable rules.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.e The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this Permit to Install.

On February 14, 2005, OAC rule 3745-23-06 was rescinded; therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the U.S. EPA approves the revision to OAC rule 3745-23-06, the requirement to satisfy the "latest available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

2.f The use of photochemically reactive material for ink and fountain solution, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit is prohibited. Prior to employing any photochemically reactive materials for ink and fountain solution, the permittee shall apply for and receive a final permit to install modification from Ohio EPA.

2.g Stack emissions shall be vented to a thermal oxidizer with a minimum OC destruction efficiency of 95% and an overall (stack + fugitive) control efficiency of 85%.

B. Operational Restrictions

1. The maximum annual coating and cleanup material usage for this emissions unit shall not exceed the following levels, based upon a rolling, 12-month summation of the coating and cleanup material usage figures:

   a. 850,000 pounds printing inks, with a maximum OC content of 42.11% by weight.

   b. 3,200 gallons fountain solution, with a maximum OC content of 0.54 lb/gal.

   c. 2,900 gallons clean-up material, with a maximum OC content of 6.6 lbs/gal.

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

Month(s)	Maximum Allowable Printing Ink(pounds)	Cumulative Coating Usage Fountain Solution (gallons)	Clean-up Material (gallons)
1	71,000	267	242
1-2	142,000	534	484
1-3	213,000	801	726
1-4	284,000	1,068	968
1-5	355,000	1,336	1,210
1-6	426,000	1,604	1,452
1-7	497,000	1,872	1,694
1-8	568,000	2,140	1,936
1-9	639,000	2,408	2,178
1-10	710,000	2,676	2,420
1-11	781,000	2,944	2,662

1-12	850,000	3,200	2,900

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

2. The individual HAP and total HAP, combined, emission rates for all emissions units at the facility shall not exceed 9.9 and 24.9 tons per year, respectively, based upon a rolling, 12-month summation of emission rates. To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the usage levels for all emissions units at the facility specified in the following table:

Month(s)	Total HAP Emissions (Tons)	Individual HAP Emissions (Tons)
1	2.1	0.9
1-2	4.2	1.7
1-3	6.3	2.6
1-4	8.4	3.4
1-5	10.5	4.3
1-6	12.6	5.1
1-7	14.7	6.0
1-8	16.8	6.8
1-9	18.9	7.7
1-10	20.9	8.5
1-11	22.9	9.4
1-12	24.9	9.9

After the first 12 calendar months of operation following the issuance of this permit, compliance with the individual HAP and total HAP, combined, emission limitations for all emissions units at the facility shall be based upon a rolling, 12-month summation of the monthly usage emission figures.

3. The average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated that the emissions unit was in compliance.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information for each month for the coating operation:

   a. The company identification for each material employed (i.e.printing ink, fountain solution, clean-up material).

b. A determination of the reactivity of each ink and fountain solution used in this emissions unit, i.e., photochemically reactive or non-photochemically reactive.

c. The number of pounds of each ink employed, and the number of gallons of fountain solution and cleanup material employed.

d. The organic compound content of each ink in percent by weight and of each fountain solution and cleanup material, in pounds per gallon.

e. The total combined organic compound emission rate in pounds per month for stack and fugitive emissions based on actual material usage recorded under Section C.1.c and C.1.d and using the calculation methods outlined in Section E.1.b and E.1.d.

f. The total controlled organic compound emission for stack and fugitive emissions per rolling, 12-month period.

g. the total HAP content of each ink employed in percent by weight and of each fountain solution and cleanup material employed in pounds per gallon; and

h. the individual HAP content of each ink in percent by weight and of each fountain solution and cleanup material in pounds per gallon.

i. the rolling, 12-month summation of total HAP emissions from all emissions units located at this facility, in tons; and

j. the rolling, 12-month summation of individual HAP emissions from all emissions units located at this facility, in tons.

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit.]

2. The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information for each day for the control equipment:

a. a log of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit; and

b. all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator, when the emissions unit was in operation, was more than

50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated that the emissions unit was in compliance. There are a total of eight 3-hour blocks of time during each day.

D. Reporting Requirements

1. The permittee shall submit quarterly written deviation (excursion) reports which include the following information:

   a. all monthly records which show that the material usage or composition exceeds the limitations specified in Section B.1;

   b. all 3-hour blocks of time during which the average temperature of the exhaust gases was more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the until was in compliance;

   c. all exceedances of the rolling, 12-month total HAP emission limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative total HAP emission limitation set forth in section B.2 of this permit; and

   d. all exceedances of the rolling, 12-month individual HAP emission limitation and, for the first 12 calendar months of operation, all exceedances of the maximum allowable cumulative individual HAP emission limitation set forth in section B.2 of this permit.

   These reports shall be submitted to the Toledo Division of Environmental Services by April 30, July 31, October 31 and January 31 of each year and shall cover the previous calendar quarter. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that period.

E. Testing Requirements

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

   a. Emission Limitation:

      The combined emissions from all emissions units at the facility shall not exceed 9.9 tons per rolling, 12-month period for any single HAP and 24.9 tons per rolling, 12-month period for any combination of HAPs.

      Applicable Compliance Method:

      The monitoring and recordkeeping requirement C.1 will be used to demonstrate compliance.

   b. Emission Limitation:

Stack OC emissions shall not exceed 2.4 pounds per hour.

Applicable Compliance Method:

Compliance with the hourly emission rate may be demonstrated by the following calculation from Ohio EPA Engineering Guide #56.

Stack emissions, S, (lbs/hr) from the printing process:

$S = (1- DRE)[0.8 (P) + A_d (FS) + B_d (CS)]$

where:

DRE = destruction or removal efficiency of control device, expressed as a decimal = 0.95

P = (ink usage, lbs/hr) X (ink VOC content, % by weight)
P = (850,000 lbs/6000 hrs)(0.4211) = 59.66 lbs VOC/hr
Maximum hourly usage is based on maximum annual usage divided by 6000 hours per year of operation.

FS = (fountain solution usage rate, gal/hr) X (fountain solution VOC content, lbs VOC/gal)
FS = (3200 gal/6000 hrs)(0.54 lb/gal) = 0.29 lbs VOC/hr
Maximum hourly usage is based on maximum annual usage divided by 6000 hours per year of operation.

CS = (cleanup solvent usage rate, gal/hr) X (cleanup solvent VOC content, lbs VOC/gal)
CS = (2900 gal/6000 hrs)(6.60 lbs/gal) = 3.2 lbs VOC/hr
Maximum hourly usage is based on maximum annual usage divided by 6000 hours per year of operation.

A_d = mass fraction of fountain solution VOC routed to dryer and control device;
$A_d = 0.7$

B_d = mass fraction of cleanup solvent routed to dryer and control device;
$B_d = 0.0$

Then:
S = (1-0.95)[0.8(59.66) + 0.7(0.29) + 0.0(3.2)] = 2.4 lbs VOC/hr

If required, the permittee shall demonstrate compliance with the lb/hr emission limitation
through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A, as appropriate. Compliance is demonstrated if the actual emissions rate from all emissions units during the test is less than the

combined allowable emissions from all emissions units in operation during the test. Alternative U.S. EPA-approved test methods may be used with prior written approval from Ohio EPA.

c. Emission Limitation:

Stack OC emissions from the printing process shall not exceed 7.19 tons per rolling, 12-month period.

Applicable Compliance Method:

The annual OC emission limitation is based on the operational restrictions contained in Section B.1. Compliance with the hourly emission limitation and the operational restrictions contained in Section B.1 shall serve as demonstration of compliance with the annual emission limitation.

d. Emission Limitation:

Fugitive OC emissions shall not exceed 1.69 lbs per hour.

Applicable Compliance Method:

Compliance with the hourly emission rate may be demonstrated by the following calculation from Ohio EPA Engineering Guide #56.

Fugitive emissions, F, (lbs/hr) from printing process are:

$F = A_f(FS) + B_f(CS)$

where:

FS = (fountain solution usage rate, gal/hr) X (fountain solution VOC content, lbs VOC/gal)
FS = (3200 gal/6000 hrs)(0.54 lb/gal) = 0.29 lb VOC/hr

CS = (cleanup solvent usage rate, gal/hr) X (cleanup solvent VOC content, lbs VOC/gal)
CS = (2900 gal/6000 hrs)(6.60 lbs/gal) = 3.2 lbs VOC/hr

A_f = mass fraction of fountain solution VOC emitted as fugitive;
$A_f = 0.3$

B_f = mass fraction of cleanup solvent emitted as fugitive;
$B_f = 0.5$ (if solvent vapor pressure < 10 mm Hg at 20 deg. C (68 deg. F) and used rags are stored in closed containers)
Then:

F = 0.3(0.29) + 0.5(3.2) = 1.69 lbs VOC/hr

e. Emission Limitation:

Fugitive OC emissions shall not exceed 5.1 tons/yr

Applicable Compliance Method:

The annual OC emission limitation is based on the hourly emission limitation (1.69 lbs/hr) multiplied by 6,000 hours per year and divided by 2000 pounds per ton. The operational restrictions contained in B.1 are based on the maximum hourly usage rates for 6,000 hours per year. Compliance with the usage restrictions in Section B.1 and the destruction efficiency in Section A.2.g shall serve as demonstration of compliance with the annual emission limitation.

f. Emission Limitation:

0.38 pound of CO per hour from the dryer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 84 pounds of CO emissions per million standard cubic feet by a heating value of 1,020 Btus per standard cubic foot and multiply the result by the maximum heat input capacity of 4.6 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA-approved test methods may be used with prior written approval from the Ohio EPA.

g. Emission Limitation:

1.7 tons of CO per year from the dryer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.38 pound of CO per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

h. Emission Limitation:

0.45 pound of NOx per hour from the dryer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 100 pounds of NOx emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4.6 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 7 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA-approved test methods may be used with prior written approval from the Ohio EPA.

i. Emission Limitation:

2.0 tons of NOx per year from the dryer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.45 pound of NOx per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

j. Emission Limitation:

0.01 pound of PE per hour from the dryer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 1.9 pounds of PE per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4.6 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA-approved test methods may be used with prior written approval from the Ohio EPA.

k. Emission Limitation:

0.04 ton of PE per year from the dryer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.01 pound of PE per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

l. Emission Limitation:

0.002 pound of SO2 per hour from the dryer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 0.6 pounds of SO2 emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4.6 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04. Alternative U.S. EPA-approved test methods may be used with prior written approval from the Ohio EPA.

m. Emission Limitation:

0.01 ton of SO2 per year from the dryer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.002 pound of SO2 per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

n. Emission Limitation:

0.03 pound of VOC per hour from the dryer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 5.5 pounds of

VOC emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4.6 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA-approved test methods may be used with prior written approval from the Ohio EPA.

o. Emission Limitation:

0.1 ton of VOC per year from the dryer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.03 pound of VOC per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

p. Emission Limitation:

0.33 pound of CO per hour from thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 84 pounds of CO emissions per million standard cubic feet by a heating value of 1,020 Btus per standard cubic foot and multiply the result by the maximum heat input capacity of 4 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 through 4 and 10 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA-approved test methods may be used with prior written approval from the Ohio EPA.

q. Emission Limitation:

1.4 tons of CO per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows:

multiply the short term emission rate of 0.33 pound of CO per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

r. Emission Limitation:

0.39 pound of NOx per hour from the thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 100 pounds of NOx emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4 mmBtu per hour.
If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 7 of 40 CFR Part 60 Appendix A. Alternative U.S. EPA-approved test methods may be used with prior written approval from the Ohio EPA.

s. Emission Limitation:

1.7 tons of NOx per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.39 pound of NOx per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

t. Emission Limitation:

0.01 pound of PE per hour from the thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 1.9 pounds of PE per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA-approved test methods may be used with prior written approval from the Ohio EPA.

u. Emission Limitation:

0.04 ton of PE per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.01 pound of PE per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

v. Emission Limitation:

0.002 pound of SO2 per hour from the thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 0.6 pounds of SO2 emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4 mmBtu per hour.
If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04. Alternative U.S. EPA-approved test methods may be used with prior written approval from the Ohio EPA.

w. Emission Limitation:

0.01 ton of SO2 per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.002 pound of SO2 per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

x. Emission Limitation:

0.02 pound of VOC per hour from the thermal oxidizer

Applicable Compliance Method:

Compliance may be determined through calculations based on emission factors specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission

Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 5.5 pounds of VOC emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 4 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA-approved test methods may be used with prior written approval from the Ohio EPA.

y. Emission Limitation:

0.09 ton of VOC per year from the thermal oxidizer

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. Compliance may be demonstrated through calculations performed as follows: multiply the short term emission rate of 0.02 pound of VOC per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

z. Emission Limitation:

Stack emissions from the printing process shall be vented to a thermal oxidizer with a minimum OC destruction efficiency of 95%.

Applicable Compliance Method:

If required, the control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. Samples shall be taken simultaneously at the inlet and outlet of the vapor control system.

aa. Emission Limitation:

85 % minimum overall (stack + fugitive) control efficiency

Applicable Compliance Method:

Compliance shall be determined through the following material balance calculation: Subtract the controlled emissions rate from the uncontrolled emission rate. Divide this difference by the uncontrolled emission rate and multiply by 100%.

The maximum uncontrolled organic compound emission rate is the sum of the maximum ink, fountain solution and cleanup solvent usage rates [((850,000 lbs/yr x 0.4211) / 6000 hrs/yr) + ((3200 gal/yr x 0.54 lb/gal) / 6000 hrs/yr) + ((2900 gal/yr x 6.6 lbs/gal) / 6000 hrs/yr) = 63.15 lbs/hr].

The maximum controlled emission rate is the sum of the maximum hourly stack emissions and fugitive emissions [2.4 lbs/hr + 1.69 lbs/hr = 4.09 lbs/hr].

(63.15 lbs/hr - 4.09 lbs/hr) / (63.15 lbs/hr) x 100% = 94%

bb. Emission Limitation:

inks, with a maximum OC content of 42.11% by weight;
fountain solution, with a maximum OC content of 0.54 lb/gal; and
clean-up material, with a maximum OC content of 6.6 lbs/gal

Applicable Compliance Method:

If required, U.S. EPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotagravure printing inks and related coatings, respectively. If, pursuant to Section 11.4 of Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the U.S. EPA and shall use formulation data for that coating or ink to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

cc. Emission Limitation:

5% opacity as a 6-minute average from the thermal oxidizer stack

Applicable Compliance Method:

If required, compliance shall be demonstrated using Method 9 of 40 CFR Part 60, Appendix A.

2. Stack Testing Requirements

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate but no later than 120 days after initial startup of the emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with:

   i. the allowable mass emission rate for OC stack emissions from the printing process in pounds per hour;

   ii. the VOC content of inks in weight percent and the VOC content of fountain solution and cleanup solvent in pounds per gallon;

   iii. control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system); and

   iv. VOC content of ink, fountain solution and cleanup solvent.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

   i. VOC content: Method 24 of 40 CFR Part 60, Appendix A for VOC content; Methods 1-4 and 25 or 25A, as appropriate, of 40 CFR Part 60, Appendix A for stack emissions and destruction efficiency.

   ii. lbs/hr OC: Calculation using method described in Section E.1.b.

   iii. control efficiency: shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. Samples shall be taken simultaneously at the inlet and outlet of the vapor control system.

   iv. VOC content: U.S. EPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotagravure printing inks and related coatings, respectively. If, pursuant to Section 11.4 of Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the U.S. EPA and shall use formulation data for that coating or ink to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

   Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Toledo Division of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Toledo Division of Environmental Services's refusal to accept the results of the emission test(s).

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

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

F. Miscellaneous Requirements

1. The permit to install for this emissions unit (K007) was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's “Review of New Sources of Air Toxic Emissions” policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the “worst case” pollutant(s):

   Pollutant: Aliphatic Solvent Naptha

   TLV (mg/m3): 572.6 (stoddard solvent)

   Maximum Hourly Emission Rate (lbs/hr): 1.2

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 11.25

MAGLC (ug/m3): 13,600

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

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 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.

2. 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.