



Environmental
Protection Agency

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

7/1/2010

Stephen Hultquist
VERTIS INC
250 W Pratt St.
18th Floor
Baltimore, MD 21201

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0125041807
Permit Number: P0106542
Permit Type: Administrative Modification
County: Franklin

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Kevin Boyce," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

If you have any questions, please contact Ohio EPA DAPC, Central District Office at (614)728-3778 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,


Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-CDO



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
VERTIS INC**

Facility ID: 0125041807
Permit Number: P0106542
Permit Type: Administrative Modification
Issued: 7/1/2010
Effective: 7/1/2010
Expiration: 2/18/2014



Division of Air Pollution Control
Permit-to-Install and Operate
for
VERTIS INC

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Authorization

Facility ID: 0125041807

Application Number(s): M0000845

Permit Number: P0106542

Permit Description: Administrative modification to change the stack testing language to say "within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit." Other minor corrections are noted in the permit document.

Permit Type: Administrative Modification

Permit Fee: \$100.00

Issue Date: 7/1/2010

Effective Date: 7/1/2010

Expiration Date: 2/18/2014

Permit Evaluation Report (PER) Annual Date: July 1 - June 30, Due Aug 15

This document constitutes issuance to:

VERTIS INC
4051 FONDORF DR
COLUMBUS, OH 43228

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049
(614)728-3778

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section 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 described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Chris Korleski
Director



Authorization (continued)

Permit Number: P0106542
Permit Description: Administrative modification to change the stack testing language to say "within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit." Other minor corrections are noted in the permit document.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	K012
Company Equipment ID:	G14
Superseded Permit Number:	P0106183
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- **PTIO fee.** This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- **Annual emissions fee.** Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.

10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Central District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed

permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting¹ a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated

¹ Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.

B. Facility-Wide Terms and Conditions

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.

C. Emissions Unit Terms and Conditions



1. K012, 704

Operations, Property and/or Equipment Description:

Goss C700 4-unit heatset web offset lithographic press with associated dryer and controlled by two tandem 20,000 scfm regenerative thermal oxidizers (RTOs)

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)b., c)(1), c)(2), and c)(4)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Emissions shall not exceed: 27.09 lbs/hr and 32.70 tons/yr of volatile organic compounds (VOC) from printing operations. The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D). See Sections b)(2)a. and c)(3) below.
b.	OAC rule 3745-31-05(D) (synthetic minor to avoid Title V)	Total VOC emissions shall not exceed 99.0 tons per year from emissions units K001, K002, K003, K006, K008, K010, K011, and K012 combined as a rolling, 12-month summation. The combined total hazardous air pollutants (HAP) emissions shall not



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>exceed 9.9 tons per rolling 12-month period for any single HAP and 24.9 tons per rolling 12-month period for all HAPs from all coating and cleanup materials used in units K001, K002, K003, K006, K008, K010, K011, and K012 combined.</p> <p>See Sections c)(1), (2), and (4) below.</p>
c.	OAC rule 3745-21-07(G)(1)	<p>The emission limitation and/or control requirements specified in this rule are less stringent than the emission limitations and/or control requirements established pursuant to OAC rule 3745-31-05(D).</p> <p>See b)(2)b.</p>
d.	OAC rule 3745-21-07(G)(2)	<p>The emission limitation and/or control requirements specified in this rule are less stringent than the emission limitations and/or control requirements established pursuant to OAC rule 3745-31-05(D).</p> <p>See b)(2)b.</p>
e.	OAC rule 3745-21-07(G)(6)(a)	<p>The limitation specified in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(D).</p> <p>See b)(2)b.</p>

(2) Additional Terms and Conditions

- a. The hourly VOC emission limitation was established to reflect the potential to emit for this emissions unit after control. The emissions from this emissions unit are controlled with a thermal afterburner. Therefore, no additional monitoring, record keeping and/or reporting other than the parametric monitoring of the RTOs is necessary to ensure compliance with these limits.
- b. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The requirements of amended OAC rule 3745-21-07 do not apply to emissions units that are installed after February 18, 2008. The



following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)c.-e.

c. The amended OAC rule 3745-21-07 does not apply to this emissions per OAC rule 3745-21-07(A)(5), because the emissions unit was installed after February 18, 2008.

c) Operational Restrictions

(1) The following annual usage limitations shall not be exceeded for emission units K001, K002, K003, K006, K008, K010, K011, and K012 combined, based upon a rolling, 12-month summation.

Material:	Limitation:
Heatset ink	8,162,500 pounds
Heatset Fountain Solution	71,700 gallons
Automatic Blanket Wash	7,850 gallons
Manual Blanket Wash	12,500 gallons

A table delineating the usage during the first 12 months is not necessary because records have been submitted to the Ohio EPA, Central District Office (CDO) which demonstrate past compliance with these limitations.

(2) Emission units K001, K002, K003, K006, K008, K010, K011, and K012 shall not use a heatset ink with a VOC content greater than 43% by weight, a fountain solution with a VOC content greater than 0.99 lbs/gal, or a blanket wash (manual or automatic) with a VOC content greater than 2.17 lbs/gal.

Ink means a liquid material applied by a roll printer. Fountain solution means a concentrated additive, diluted with water and applied to a lithographic plate to render the non-image areas unreceptive to ink. Blanket wash means all materials used to remove excess printing inks, oils and paper components from press equipment.

(3) The average combustion temperature within the RTOs for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1400 degrees Fahrenheit.

(4) Emissions from this emissions unit shall be vented to tandem RTOs with a destruction removal efficiency (DRE) of at least 95%.

(5) The permittee shall keep all solvent containers closed at all times unless, filling, draining, or performing cleanup operations.

(6) The permittee shall keep all solvent-laden shop towels in closed containers when not being used.

(7) The permittee shall maintain the as-applied VOC composite partial vapor pressure, for blanket wash (manual or automatic), at or below 10 mm Hg at 20 degrees Celsius (68 degrees Fahrenheit).

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

- a. the company identification for each ink, fountain solution and blanket wash employed;
- b. the number of pounds of each heatset ink employed for emission units K001, K002, K003, K006, K008, K010, K011, and K012 combined;
- c. the number of gallons of each heatset fountain solution, automatic blanket wash and manual blanket wash employed for emission units K001, K002, K003, K006, K008, K010, K011, and K012 combined;
- d. the VOC content of each ink, in percent by weight;
- e. the HAP content of each ink, in percent by weight;
- f. the combined HAP content of each ink, in percent by weight;
- g. the VOC content of each fountain solution and blanket wash, in pounds per gallon;
- h. VOC composite partial vapor pressure of all blanket wash (manual or automatic) materials employed in all lithographic printing operations;
- i. the individual HAP content of each fountain solution and blanket wash, in pounds per gallon;
- j. the combined HAP content of each fountain solution and blanket wash, in pounds per gallon;
- k. the thermal afterburner DRE (%), as demonstrated during the most recent DRE test which demonstrated compliance;
- l. the total monthly VOC, single HAP and combined HAPs emission rate for all inks, fountain solutions and blanket washes, in pounds and tons, using the following equations;

VOC from heatset inks: $[b \times d \times \text{substrate retention factor (1.0-0.20)} \times (1.0-j)]$

VOC from heatset captured fountain solution: $[c \times g \times \text{cap. eff. (1-0.30)} \times (1.0-j)]$

VOC from heatset fugitive fountain solution: $[c \times g \times \text{fug. (1-0.70)}]$

VOC from captured automatic blanket wash: $[c \times g \times \text{cap. eff. (1-0.6)} \times (1.0-j)]$

VOC from fugitive automatic blanket wash: $[c \times g \times \text{fug. (1-0.4)}]$

VOC from manual blanket wash: $[c \times g \times \text{retention factor (1.0-0.5)}]$

HAP from heatset inks: $[b \times e \times \text{substrate retention factor (1.0-0.20)} \times (1.0-j)]$

HAP from heatset captured fountain solution: $[c \times h \times \text{cap. eff. (1-0.30)} \times (1.0-j)]$

HAP from heatset fugitive fountain solution: $[c \times h \times \text{fug. (1-0.70)}]$

HAP from captured automatic blanket wash: $[c \times h \times \text{cap. eff. (1-0.6)} \times (1.0-j)]$

HAP from fugitive automatic blanket wash: $[c \times h \times \text{fug. (1-0.4)}]$

HAP from manual blanket wash: $[c \times h \times \text{retention factor (1.0-0.5)}]$

HAPs from heatset inks: $[b \times f \times \text{substrate retention factor (1.0-0.20)} \times (1.0-j)]$

HAPs from heatset captured fountain solution: $[c \times i \times \text{cap. eff.} (1-0.30) \times (1.0-j)]$

HAPs from heatset fugitive fountain solution: $[c \times i \times \text{fug.} (1-0.70)]$

HAPs from captured automatic blanket wash: $[c \times i \times \text{cap. eff.} (1-0.6) \times (1.0-j)]$

HAPs from fugitive automatic blanket wash: $[c \times i \times \text{fug.} (1-0.4)]$

HAPs from manual blanket wash: $[c \times i \times \text{retention factor} (1.0-0.5)]$

- m. the cumulative rolling, 12-month usage summation of total heatset inks (in pounds), heatset fountain solutions (in gallons), automatic blanket washes (in gallons) and manual blanket washes (in gallons), for emission units K001, K002, K003, K006, K008, K010, K011, and K012 combined; and
- n. the cumulative rolling, 12-month summation of the VOC, single HAP and combined HAPs emission rate for all inks, fountain solutions and blanket washes, in pounds and tons, determined by summing the previous 12-month VOC, single HAP and combined HAPs emission rates calculated in accordance with k.

[Note: The recorded information must be for the inks, fountain solutions and blanket washes as employed, including any thinning solvents added at the emissions unit.]

- (2) The permittee shall maintain for this facility all purchase orders and invoices of VOC-containing materials. The permittee shall retain such purchase orders and invoices for at least five years from their date of issuance. Upon request, the permittee shall make available to the Director of the Ohio EPA, or an authorized representative of the Director, such purchase orders and invoices for use in confirming the general accuracy of the records maintained and the reports submitted regarding material usage.
 - (3) The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the combustion temperature within the RTOs 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 calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
 - (4) The permittee shall collect and record the following information each day:
 - a. all 3-hour blocks of time during which the combustion temperature within the thermal afterburner, when the emissions unit was in operation, dropped below 1400 degrees Fahrenheit; and
 - b. a log of the downtime for the capture (collection) system, all control devices, and all monitoring equipment, when the associated emissions unit was in operation.
- e) Reporting Requirements
- (1) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the Potential to Emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:

- i. all exceedances of the rolling, 12-month VOC, single HAP and combined HAPs emission limitations for emission units K001, K002, K003, K006, K008, K010, K011, and K012;
 - ii. all exceedances of the rolling, 12-month summation of inks, fountain solutions and blanket washes for emission units K001, K002, K003, K006, K008, K010, K011, and K012;
 - iii. all exceedances of the VOC content limitations for ink, in percent by weight, fountain solution and blanket wash, in pounds per gallon;
 - iv. all 3-hour blocks of times during which the average combustion temperature within the thermal afterburner does not comply with the temperature limitation specified above; and
 - v. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emission unit was in operation.
 - vi. each instance when an exceedance of the VOC content or VOC composite partial vapor pressure as specified for each cleaning material in c)(7).
- b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted (postmarked) each year by the thirty-first of January (covering October to December), the thirtieth of April (covering January to March), the thirty-first of July (covering April to June), and the thirty-first of October (covering July to September), unless an alternative schedule has been established and approved by the director (the appropriate district office or local air agency).

- (2) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

f) **Testing Requirements**

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

- a. Emission Limitation:
VOC emissions shall not exceed 27.09 lbs/hr

Applicable Compliance Method:

Compliance shall be demonstrated by summing the ink, fountain solution and blanket wash emissions. The ink emissions shall be determined by multiplying the maximum ink usage of 600 lbs/hr by the maximum VOC content of 43% by weight, by the substrate retention factor (1.0-0.20)* and by the minimum destruction efficiency (1.0-0.95)**.

The hourly captured fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 60 gal/hr by the maximum VOC content of 0.99 lbs/gal by the capture efficiency (1-0.30)* and by the minimum destruction efficiency (1.0-0.95)**. The fugitive fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 60 gal/hr by the maximum VOC content of 0.99 lbs/gal by the fugitive amount (1-0.70)*.

The hourly manual blanket wash emissions shall be determined by multiplying the maximum manual blanket wash usage of 5 gal/hr by the maximum VOC content of 2.17 lbs/gal and by the shop towels retention factor*** (1.0-0.50)*.

The hourly captured automatic blanket wash emissions shall be determined by multiplying the maximum automatic blanket wash usage of 3 gal/hr by the maximum VOC content of 2.17 lbs/gal by the capture efficiency (1.0-0.6)* and by the minimum destruction efficiency (1.0-0.95). The fugitive automatic blanket wash emissions shall be determined by multiplying the maximum automatic blanket wash usage of 3 gal/hr by the maximum VOC content of 2.17 lbs/gal and by the fugitive emissions (1.0-0.4)*.

* *EPA-453/R-06-002, Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing, September 2006.*

** *Stack test data from test performed December 5, 2007.*

*** *50 % VOC retention factor shall be used for cleaning solution VOC in shop towels for manual blanket wash materials with a VOC composite vapor pressure of no more than 10 mm Hg at 20 Celsius (68 degrees Fahrenheit) if the contaminated shop towels are kept in closed containers, meaning 50% of the VOC used on the shop towels is emitted during the cleaning process.*

- b. Emission Limitation:
VOC emissions shall not exceed 32.70 tons/yr.

Applicable Compliance Method:

Compliance shall be demonstrated by summing the ink, fountain solution and blanket wash emissions. The ink emissions shall be determined by multiplying the maximum ink usage of 2,000,000 lbs/yr by the maximum VOC content of 43% by weight, by the substrate retention factor (1.0-0.20)* by the minimum destruction efficiency (1.0-0.95)* and dividing by 2000 lbs/ton.

The annual captured fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 20,000 gal/yr by the maximum VOC content of 0.99 lbs/gal by the capture efficiency (1-0.30)* by the minimum destruction efficiency (1.0-0.95)** and dividing by 2000 lbs/ton. The fugitive fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 20,000 gal/yr by the maximum VOC content of 0.99 lbs/gal by the fugitive amount (1-0.70)* and dividing by 2000 lbs/ton.

The annual manual blanket wash emissions shall be determined by multiplying the maximum manual blanket wash usage of 10,000 gal/yr by the maximum VOC content of 2.17 lbs/gal by the shop towels retention factor*** (1.0-0.50)* and dividing by 2000 lbs/ton.

The annual captured automatic blanket wash emissions shall be determined by multiplying the maximum automatic blanket wash usage of 10,000 gal/yr by the maximum VOC content of 2.17 lbs/gal by the capture efficiency (1.0-0.6)* by the minimum destruction efficiency (1.0-0.95)** and dividing by 2000 lbs/ton. The fugitive automatic blanket wash emissions shall be determined by multiplying the maximum automatic blanket wash usage of 10,000 gal/yr by the maximum VOC content of 2.17 lbs/gal by the fugitive emissions (1.0-0.4)* and dividing by 2000 lbs/ton.

* EPA-453/R-06-002, *Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing, September 2006.*

** Stack test data from test performed December 5, 2007.

*** 50 % VOC retention factor shall be used for cleaning solution VOC in shop towels for manual blanket wash materials with a VOC composite vapor pressure of no more than 10 mm Hg at 20 Celsius (68 degrees Fahrenheit) if the contaminated shop towels are kept in closed containers, meaning 50% of the VOC used on the shop towels is emitted during the cleaning process.

c. Emission Limitation:

Total VOC emissions from the facility shall not exceed 99.0 tons per year for emissions units K001, K002, K003, K006, K008, K010, K011, and K012 combined, as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section d)(1) of this permit.

d. Emission Limitation:

The individual HAP emissions shall not exceed 9.9 tons per rolling 12-month period for all single HAP from all coatings and cleanup materials used in units K001, K002, K003, K006, K008, K010, K011, and K012 combined.

Applicable Compliance Method:

Compliance shall be based upon the record keeping requirements specified in Section d)(1) of this permit.

- e. Emission Limitation:
The combined total HAPs emissions shall not exceed 24.9 tons per rolling 12-month period for all HAP from all coatings and cleanup materials used in units K001, K002, K003, K006, K008, K010, K011, and K012 combined.
- Applicable Compliance Method:
Compliance shall be based upon the recordkeeping requirements specified in Section d)(1) of this permit.
- f. Emission Limitation:
The annual usage limitations for heatset ink (8,162,500 pounds), heatset fountain solution (71,700 gallons), automatic blanket wash (7,850 gallons), and manual blanket wash (12,500 gallons) shall not be exceeded for emission units K001, K002, K003, K006, K008, K010, K011, and K012 combined, based upon a rolling, 12-month summation.
- Applicable Compliance Method:
Compliance shall be based upon the recordkeeping requirements specified in Section d)(1)b. and c.
- g. Emission Limitation:
The emission units K001, K002, K003, K006, K008, K010, K011, and K012 shall not use a heatset ink with a VOC content greater than 43% by weight, a fountain solution with a VOC content greater than 0.99 lbs/gal, or a blanket wash (manual or automatic) with a VOC content greater than 2.17 lbs/gal.
- Applicable Compliance Method:
Compliance shall be based upon the recordkeeping requirements specified in Section d)(1)d. and g.
- h. Emission Limitation:
The VOC composite partial vapor pressure of each cleaning material shall be maintained at or below 10 mmHg at 68 degrees Fahrenheit, as applied.
- Applicable Compliance Method:
The VOC composite partial vapor pressure shall be determined by one of the methods outlined in OAC rule 3745-21-22(F)(5).
- (2) 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 at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency limitation for VOC.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

U.S. EPA Method 25 or 25A

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 appropriate Ohio EPA District Office or local air agency. 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 Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- f. Personnel from the appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency 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 appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

- (1) None.