

**X Synthetic Minor Determination and/or  Netting Determination**  
Permit To Install **01-08728**

**A. Source Description**

Vertis Inc. is a printing facility located in Franklin County. The facility prints advertising inserts and other similar products. The facility submitted a FESOP in the past to avoid Title V applicability. In the process of reviewing the FESOP a compliance evaluation of the facility was conducted. Multiple emission units were found to be out of compliance with their respective PTIs and appropriate enforcement procedures have been followed.

To consolidate and clarify facility requirements for existing printing presses and to institute federally enforceable requirements in an effective permit, the company decided to pursue new PTIs for each printing press and maintain record keeping and reporting on a facility-wide basis. Thus this Synthetic Minor PTI application was submitted.

As part of this permit, the facility has applied to install a new emission unit - K009 with an integrated dryer/thermal afterburner (Dual Dry II).

**B. Facility Emissions and Attainment Status**

Franklin County is attainment for ozone. Facility-wide VOC, HAP and HAPs potential to emit exceeds the major source threshold for TV. This permit will effectively restrict the PTE for this facility to less than the Title V source thresholds for VOC, HAP and HAPs.

**C. Source Emissions**

The PTE will be restricted through emission limitations of VOC, HAP and combined HAPs. The emission limitations will be enforced through a 95% minimum destruction efficiency on each of the four thermal afterburners and a facility-wide usage restrictions on ink, fountain solution and blanket wash.

These restrictions/limitations will affect the PTE as follows:

	Pre-Syn Minor	Post-Syn Minor
VOC	283.0 tons/yr	99.0 tons/rolling 12-month period
HAP	>10 tons/yr	9.0 tons/rolling 12-month period
HAPs	>25 tons/yr	22.0 tons/rolling 12-month period

**D. Conclusion**

The federally enforceable restrictions and limitations contained within this permit will consolidate and clarify requirements found in previously issued PTIs and allow for the installation of a new printing press. In addition, it will restrict the facility from triggering Title V permitting requirements. Specifically, the ink, fountain solution and blanket wash limitations coupled with the DRE of 95% or greater on each thermal afterburner will maintain emissions at the facility to less than 99.0 tons VOC, 9.0 tons HAP and 22.0 tons HAPs per rolling 12-month period.



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  
FRANKLIN COUNTY  
Application No: 01-08728**

**DATE:** 6/10/2003

Vertis Inc  
Stephen Hultquist  
250 W Pratt St 18th floor  
Baltimore, CA 21201

**CERTIFIED MAIL**

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

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

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$1600** 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.

Very truly yours,

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

cc: USEPA

CDO

Mid-Ohio Regional Planning Commission

**FRANKLIN COUNTY**

**PUBLIC NOTICE**

**ISSUANCE OF DRAFT ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 01-08728**

On 6/10/2003 the Director of the Ohio Environmental Protection Agency issued a draft action of an administrative modification of a prior Permit To Install document for an air contaminant source for **Vertis Inc**, located at **4051 Fondorf Drive, Columbus, Ohio**.

The administrative modification shall become effective upon final issuance.

**Heatset web offset printing lines.**

Comments concerning this draft action, or a request for a public hearing, 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.

Isaac Robinson, Ohio EPA, Central District Office, 3232 Alum Creek Drive, Columbus, OH 43207-3417  
[(614)728-3778]



**Permit To Install**

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

**Terms and Conditions**

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

**DRAFT PERMIT TO INSTALL 01-08728**

Application Number: 01-08728

APS Premise Number: 0125041807

Permit Fee: **To be entered upon final issuance**

Name of Facility: Vertis Inc

Person to Contact: Stephen Hultquist

Address: 250 W Pratt St 18th floor  
Baltimore, CA 21201

Location of proposed air contaminant source(s) [emissions unit(s)]:

**4051 Fondorf Drive  
Columbus, Ohio**

Description of proposed emissions unit(s):

**Heatset web offset printing lines.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

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Director

## Part I - GENERAL TERMS AND CONDITIONS

### A. Permit to Install General Terms and Conditions

#### 1. Compliance Requirements

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

#### 2. Reporting Requirements

The permittee shall submit required reports in the following manner:

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

#### 3. Records Retention Requirements

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

#### 4. Inspections and Information Requests

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

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

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

**6. Permit Transfers**

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

**7. Air Pollution Nuisance**

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

**8. Termination of Permit to Install**

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

**9. Construction of New Sources(s)**

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

Vertis Inc

PTI Application: 01-08728

Issued: To be entered upon final issuance

Facility ID: 0125041807

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

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

#### **10. Public Disclosure**

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

#### **11. Applicability**

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

#### **12. Best Available Technology**

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

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

- 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).

Vertis Inc

PTI Application: 01-08728

Issued: To be entered upon final issuance

Facility ID: 0125041807

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install 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.

#### 14. Construction Compliance Certification

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

#### 15. Fees

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

### B. Permit to Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	99.0
HAP	9.0
HAPs	22.0

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

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K001 - 8-unit Harris N954 heatset web offset lithographic printing press (954-1) and dryer controlled by KATEC thermal afterburner (Terms in this permit supercede those identified in PTI 01-1228 issued 07/16/89.)	OAC rule 3745-31-05(A)(3)	<p>Volatile Organic Compound (VOC) emissions shall not exceed 48.00 lbs/hr and 34.7 tons/yr.</p> <p>Particulate emissions (PE)/particulate matter less than 10 microns (PM10) shall not exceed 0.551 lb/hr and 2.41 tons per year.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-05 (D) and 3745-17-07(A).</p>
	OAC rule 3745-31-05(D)	See A.2.b-d, B.1, and B.2 below.
	OAC rule 3745-17-11(A)	The hourly emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	See term A.2.f below.
	OAC rule 3745-21-07(G)(2)	The emission limitation and/or control requirements specified in this rule is less stringent than the emission limitations and/or control requirements established pursuant to OAC rule 3745-31-05(D).
	OAC rule 3745-21-07(G)(6)(a)	The limitation specified in this rule is less stringent than the limitation established pursuant to OAC rule 3745-31-05(D).

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K001**

40 CFR Part 63, Subpart KK

The emission limitations specified in this rule are equivalent to the emission limitations established pursuant to OAC rule 3745-31-05(D).

See term A.2.e below.

## **2. Additional Terms and Conditions**

- 2.a** The emission unit's 48.00 lbs VOC/hr and 34.7 tons VOC/yr emission limitations are based on the emission unit's potential to emit vented through the control equipment referenced below. Therefore, only the monitoring, record keeping or reporting requirements of the control equipment are necessary to ensure compliance with these emission limitations.
- 2.b** Emission units K001, K002, K003, K004, K006, K007, K008 and K009 shall not use a heat-set ink with a VOC content greater than 43% by weight, a cold-set ink with a VOC content greater than 10% by weight, a fountain solution with a VOC content greater than 1.2 lbs/gal, or a blanket wash (manual or automatic) with a VOC content greater than 5.4 lbs/gal.

Ink means a liquid material applied by a roll printer. Fountain solution means a surface coating 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.

- 2.c** Emissions from this emissions unit shall be vented to a thermal afterburner with a destruction removal efficiency (DRE) of at least 95%.
- 2.d** Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP <sup>1</sup>, 22.0 tons of combined HAPs and 99.0 tons of VOC.

<sup>1</sup> A listing of Hazardous Air Pollutants (HAPs) can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

- 2.e** This emissions unit is subject to the applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as promulgated by the United States Environmental Protection Agency under 40 CFR Part 63. The application and enforcement of these standards are delegated to Ohio EPA. The requirements of 40 CFR Part 63 are also federally enforceable.

**Vertis Inc**  
**PTI Application: 01-08728**  
**Issued: To be entered upon final issuance**

**Facility ID: 0125041807**  
**Emissions Unit ID: K001**

- 2.f** Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average.

**B. Operational Restrictions**

1. The following annual usage limitations shall not be exceeded for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined, based upon a rolling, 12-month summation.

<u>Material:</u>	<u>Limitation:</u>
Heatset ink	8,000,000 pounds
Coldset Ink	450,000 pounds
Heatset Fountain Solution	40,000 gallons
Coldset Fountain Solution	3,000 gallons
Automatic Blanket Wash	3,000 gallons
Manual Blanket Wash	9,000 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. The average combustion temperature within the thermal afterburner, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1500 degrees Fahrenheit.

**C. 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 ink employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. the number of gallons of each fountain solution and blanket wash employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - d. the VOC content of each ink, in percent by weight;
  - e. the individual 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. the individual HAP content of each fountain solution and blanket wash, in pounds per gallon;
- i. the combined HAP content of each fountain solution and blanket wash, in pounds per gallon;
- j. the total monthly VOC (terms C.1.b x C.1.d + terms C.1.c x C.1.g), single HAP (terms C.1.b x C.1.e + terms C.1.c x C.1.h) and combined HAPs (terms C.1.b x C.1.f + terms C.1.c x C.1.i) emission rate for all inks, fountain solutions and blanket washes, in pounds and tons;
- k. the cumulative rolling, 12-month usage summation of total inks, in pounds, and total fountain solutions and blanket washes, in gallons, for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined; and
- l. the facility-wide cumulative rolling, 12-month summation of the VOC (terms C.1.d x C.1.k + terms C.1.g x C.1.k), single HAP (terms C.1.e x C.1.k + terms C.1.h x C.1.k) and combined HAPs (terms C.1.f x C.1.k + terms C.1.i x C.1.k) emission rate for all inks, fountain solutions and blanket washes in pounds and tons.

[Note: The coating 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 thermal afterburner 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 incinerator, when the emissions unit was in operation, dropped below 1500 degrees Fahrenheit; and

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K001**

- 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.
5. The permit to install for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined were evaluated based on the actual materials and the design parameters of the emission unit and facility'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 emissions units K001, K002, K003, K004, K006, K007, K008 and K009 combined 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: Naphthalene

TLV (mg/m<sup>3</sup>): 52

Maximum Hourly Emission Rate (lbs/hr): 17.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 776.5

MAGLC (ug/m<sup>3</sup>): 1238

Pollutant: Glycol Ether

TLV (mg/m<sup>3</sup>): 121

Maximum Hourly Emission Rate (lbs/hr): 1.407

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 61.4

MAGLC (ug/m<sup>3</sup>): 2881

Physical changes to or changes in the method of operation of the emissions unit or facility exhaust after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of or use of materials used, 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

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K001**

- c. physical changes to the emissions unit or the facility exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the “Air Toxic Policy:”

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the “Air Toxic Policy” for the change.

#### **D. Reporting Requirements**

1. The permittee shall submit the appropriate reports pursuant to 40 CFR Part 63.830(b).
2. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
  - a. all exceedances of the facility-wide rolling, 12-month summation of VOC, single HAP and combined HAPs limitations;
  - b. all exceedances of the rolling, 12-month summation of inks, fountain solutions and blanket washes for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. all exceedances of the VOC content limitations for ink, in percent by weight, fountain solution and blanket wash, in pounds per gallon;
  - d. 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
  - e. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K001**

Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.

All reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

## **E. 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 48.00 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)(Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test).

The captured fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 60 gal/hr by the maximum VOC content of 1.2 lbs/gal by the capture efficiency (1-0.30)(Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test). 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 1.2 lbs/gal by the fugitive amount (1-0.70) (Ohio EPA, Eng. Guide #56, 7/25/97).

The 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 5.4 lbs/gal and by the substrate retention factor (1.0-0.50)(Ohio EPA, Eng. Guide #56, 7/25/97).

- b. Emission Limitation:  
VOC emissions shall not exceed 34.7 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)(Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test) and dividing by 2000 lbs/ton.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K001**

The 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 1.2 lbs/gal by the capture efficiency (1-0.30)(Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test) 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 1.2 lbs/gal by the fugitive amount (1-0.70) (Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

The 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 5.4 lbs/gal by the substrate retention factor (1.0-0.50)(Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

c. Emission Limitation:

Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP, 22.0 tons of combined HAPs and 99.0 tons of VOC.

Applicable Compliance Method:

Compliance shall be demonstrated through record keeping found in Section C.1.g above.

d. Emission Limitation:

Emissions from this emissions unit shall be vented to a thermal afterburner with a DRE of at least 95%.

Applicable Compliance Method:

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

- i. The emission testing shall be conducted within 90 days following issuance of this permit. Emission testing conducted 6 months prior to issuance of this permit may satisfy this requirement.
- ii. The emission testing shall be conducted to demonstrate with the DRE of at least 95%.
- iii. The following test methods shall be employed to demonstrate compliance with the allowable DRE: 40 CFR Part 60, Appendix A, Methods 1 through 4, and 25 or 25A, as appropriate.

The control or destruction efficiency defined as the percent reduction of mass emissions between the inlet and outlet of the control system shall be determined in accordance with the test methods and procedures specified in Ohio Administrative Code 3745-21-10(C). The test methods and procedures selected

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K001**

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.

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

- iv. The test(s) shall be conducted while the emissions units venting to the incinerator are operating at or near their maximum capacity and venting emissions to the control device, unless otherwise specified or approved by the Ohio EPA, Central District Office.
- e. Emission Limitation:  
PE/PM10 shall not exceed 0.551 lb/hr.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 thru 4, 5 and/or 201 and the procedures specified in OAC rule 3745-17-03(B)(9). Alternative EPA approved test methods may be used with prior approval from the Ohio EPA.

- f. Emission Limitation:  
PE/PM10 shall not exceed 2.41 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the 0.551 lb/hr limitation by the maximum operating schedule of 8760 hours per year and dividing by 2000 lbs/ton.

- 2. Not later than 30 days prior to any proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. 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, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office 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.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K001**

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office 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 Ohio EPA, Central District Office.

**F. Miscellaneous Requirements**

None

Vertis Inc

PTI Application: 01-08728

Issued: To be entered upon final issuance

Facility ID: 0125041807

Emissions Unit ID: K002

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

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K002 - 8-unit Harris N900 heatset web offset lithographic printing press (908) and dryer controlled by KATEC thermal afterburner (Terms in this permit supercede those identified in PTI 01-2229 issued 06/01/89.)	OAC rule 3745-31-05(A)(3)	Volatile Organic Compound (VOC) emissions shall not exceed 48.00 lbs/hr and 34.7 tons/yr.  Particulate emissions (PE)/particulate matter less than 10 microns (PM10) shall not exceed 0.551 lb/hr and 2.41 tons per year.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05 (D) and OAC rule 3745-17-07(A).
	OAC rule 3745-31-05(D)	See A.2.a below.
	OAC rule 3745-17-11(A)	See A.2.b-d, B.1, and B.2 below.
	OAC rule 3745-17-07(A)(1)	The hourly emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)(2)	See term A.2.f below.
	OAC rule 3745-21-07(G)(6)(a)	The emission limitation and/or control requirements specified in this rule is less stringent than the emission limitations and/or control requirements established pursuant to OAC rule 3745-31-05(D).
		The limitation specified in this rule is less

Vertis Inc

PTI Application: 01-08728

Issued: To be entered upon final issuance

Facility ID: 0125041807

Emissions Unit ID: K002

40 CFR Part 63, Subpart KK

stringent than the limitation established pursuant to OAC rule 3745-31-05(D).

The emission limitations specified in this rule is are equivalent to the emission limitations established pursuant to OAC rule 3745-31-05(D).

See term A.2.e below.

## 2. Additional Terms and Conditions

- 2.a** The emission unit's 48.00 lbs VOC/hr and 34.7 tons VOC/yr emission limitations are based on the emission unit's potential to emit vented through the control equipment referenced below. Therefore, only the monitoring, record keeping or reporting requirements of the control equipment are necessary to ensure compliance with these emission limitations.
- 2.b** Emission units K001, K002, K003, K004, K006, K007, K008 and K009 shall not use a heat-set ink with a VOC content greater than 43% by weight, a cold-set ink with a VOC content greater than 10% by weight, a fountain solution with a VOC content greater than 1.2 lbs/gal, or a blanket wash (manual or automatic) with a VOC content greater than 5.4 lbs/gal.

Ink means a liquid material applied by a roll printer. Fountain solution means a surface coating 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.

- 2.c** Emissions from this emissions unit shall be vented to a thermal afterburner with a destruction removal efficiency (DRE) of at least 95%.
- 2.d** Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP <sup>1</sup>, 22.0 tons of combined HAPs and 99.0 tons of VOC.

<sup>1</sup> A listing of Hazardous Air Pollutants (HAPs) can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

- 2.f** This emissions unit is subject to the applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as promulgated by the United States Environmental Protection Agency under 40 CFR Part 63. The application and enforcement of these standards are delegated to Ohio EPA. The requirements of 40 CFR Part 63 are also federally enforceable.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K002**

- 2.g** Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average.

**B. Operational Restrictions**

1. The following annual usage limitations shall not be exceeded for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined, based upon a rolling, 12-month summation.

<u>Material:</u>	<u>Limitation:</u>
Heatset ink	8,000,000 pounds
Coldset Ink	450,000 pounds
Heatset Fountain Solution	40,000 gallons
Coldset Fountain Solution	3,000 gallons
Automatic Blanket Wash	3,000 gallons
Manual Blanket Wash	9,000 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. The average combustion temperature within the thermal afterburner, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1500 degrees Fahrenheit.

**C. 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 ink employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. the number of gallons of each fountain solution and blanket wash employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - d. the VOC content of each ink, in percent by weight;
  - e. the individual 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. the individual HAP content of each fountain solution and blanket wash, in pounds per

gallon;

- i. the combined HAP content of each fountain solution and blanket wash, in pounds per gallon;
- j. the total monthly VOC (terms C.1.b x C.1.d + terms C.1.c x C.1.g), single HAP (terms C.1.b x C.1.e + terms C.1.c x C.1.h) and combined HAPs (terms C.1.b x C.1.f + terms C.1.c x C.1.i) emission rate for all inks, fountain solutions and blanket washes, in pounds and tons;
- k. the cumulative rolling, 12-month usage summation of total inks, in pounds, and total fountain solutions and blanket washes, in gallons, for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined; and
- l. the facility-wide cumulative rolling, 12-month summation of the VOC (terms C.1.d x C.1.k + terms C.1.g x C.1.k), single HAP (terms C.1.e x C.1.k + terms C.1.h x C.1.k) and combined HAPs (terms C.1.f x C.1.k + terms C.1.i x C.1.k) emission rate for all inks, fountain solutions and blanket washes in pounds and tons.

[Note: The coating 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 thermal afterburner 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 incinerator, when the emissions unit was in operation, dropped below 1500 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.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K002**

5. The permit to install for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined were evaluated based on the actual materials and the design parameters of the emission unit and facility'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 emissions units K001, K002, K003, K004, K006, K007, K008 and K009 combined 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: Naphthalene

TLV (mg/m<sup>3</sup>): 52

Maximum Hourly Emission Rate (lbs/hr): 17.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 776.5

MAGLC (ug/m<sup>3</sup>): 1238

Pollutant: Glycol Ether

TLV (mg/m<sup>3</sup>): 121

Maximum Hourly Emission Rate (lbs/hr): 1.407

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 61.4

MAGLC (ug/m<sup>3</sup>): 2881

Physical changes to or changes in the method of operation of the emissions unit or facility exhaust after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of or use of materials used, 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

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K002**

- c. physical changes to the emissions unit or the facility exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the “Air Toxic Policy:”

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the “Air Toxic Policy” for the change.

#### **D. Reporting Requirements**

1. The permittee shall submit the appropriate reports pursuant to 40 CFR Part 63.830(b).
2. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
  - a. all exceedances of the facility-wide rolling, 12-month summation of VOC, single HAP and combined HAPs limitations;
  - b. all exceedances of the rolling, 12-month summation of inks, fountain solutions and blanket washes for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. all exceedances of the VOC content limitations for ink, in percent by weight, fountain solution and blanket wash, in pounds per gallon;
  - d. 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
  - e. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K002**

Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.

All reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

## **E. 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 48.00 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)(Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test).

The captured fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 60 gal/hr by the maximum VOC content of 1.2 lbs/gal by the capture efficiency (1-0.30)(Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test). 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 1.2 lbs/gal by the fugitive amount (1-0.70) (Ohio EPA, Eng. Guide #56, 7/25/97).

The 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 5.4 lbs/gal and by the substrate retention factor (1.0-0.50)(Ohio EPA, Eng. Guide #56, 7/25/97).

- b. Emission Limitation:  
VOC emissions shall not exceed 34.7 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) (Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test) and dividing by 2000 lbs/ton.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K002**

The 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 1.2 lbs/gal by the capture efficiency (1-0.30) (Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test) 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 1.2 lbs/gal by the fugitive amount (1-0.70)(Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

The manual blanket wash emissions shall be determined by multiplying the maximum manual blanket wash usage of 10,000 gal/hr by the maximum VOC content of 5.4 lbs/gal by the substrate retention factor (1.0-0.50)(Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

c. Emission Limitation:

Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP, 22.0 tons of combined HAPs and 99.0 tons of VOC.

Applicable Compliance Method:

Compliance shall be demonstrated through record keeping found in Section C.1.g above.

d. Emission Limitation:

Emissions from this emissions unit shall be vented to a thermal afterburner with a DRE of at least 95%.

Applicable Compliance Method:

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

- i. The emission testing shall be conducted within 90 days following issuance of this permit. Emission testing conducted 6 months prior to issuance of this permit may satisfy this requirement.
- ii. The emission testing shall be conducted to demonstrate with the DRE of at least 95%.
- iii. The following test methods shall be employed to demonstrate compliance with the allowable DRE: 40 CFR Part 60, Appendix A, Methods 1 through 4, and 25 or 25A, as appropriate.

The control or destruction efficiency defined as the percent reduction of mass emissions between the inlet and outlet of the control system shall be determined in accordance with the test methods and procedures specified in Ohio Administrative

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K002**

Code 3745-21-10(C). 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.

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

- iv. The test(s) shall be conducted while the emissions units venting to the incinerator are operating at or near their maximum capacity and venting emissions to the control device, unless otherwise specified or approved by the Ohio EPA, Central District Office.
- e. Emission Limitation:  
PE/PM10 shall not exceed 0.551 lb/hr.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 thru 4, 5 and/or 201 and the procedures specified in OAC rule 3745-17-03(B)(9). Alternative EPA approved test methods may be used with prior approval from the Ohio EPA.

- f. Emission Limitation:  
PE/PM10 shall not exceed 2.41 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the 0.551 lb/hr limitation by the maximum operating schedule of 8760 hours per year and dividing by 2000 lbs/ton.

- 2. Not later than 30 days prior to any proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. 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, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office 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.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K002**

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office 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 Ohio EPA, Central District Office.

**F. Miscellaneous Requirements**

None

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K003**

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

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K003 - 4-unit Harris N900 heatset web offset lithographic printing press (904) and dryer controlled by KATEC thermal afterburner (Terms in this permit supercede those identified in PTI 01-1228 issued 07/16/89.)	OAC rule 3745-31-05(A)(3)	<p>Volatile Organic Compound (VOC) emissions shall not exceed 31.00 lbs/hr and 34.7 tons/yr.</p> <p>Particulate emissions (PE)/particulate matter less than 10 microns (PM10) shall not exceed 0.551 lb/hr and 2.41 tons per year.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05 (D) and OAC rule 3745-17-07(A).</p>
	OAC rule 3745-31-05(D)	See A.2.a below.
	OAC rule 3745-17-11(A)	See A.2.b-d, B.1, and B.2 below.
	OAC rule 3745-17-07(A)(1)	The hourly emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)(2)	See term A.2.f below.
	OAC rule 3745-21-07(G)(6)(a)	The emission limitation and/or control requirements specified in this rule is less stringent than the emission limitations and/or control requirements established pursuant to OAC rule 3745-31-05(D).
		The limitation specified in this rule is less

Vertis Inc

PTI Application: 01-08728

Issued: To be entered upon final issuance

Facility ID: 0125041807

Emissions Unit ID: K003

40 CFR Part 63, Subpart KK

stringent than the limitation established pursuant to OAC rule 3745-31-05(D).

The emission limitations specified in this rule is are equivalent to the emission limitations established pursuant to OAC rule 3745-31-05(D).

See term A.2.e below.

## 2. Additional Terms and Conditions

- 2.a** The emission unit's 31.00 lbs VOC/hr and 34.7 tons VOC/yr emission limitations are based on the emission unit's potential to emit vented through the control equipment referenced below. Therefore, only the monitoring, record keeping or reporting requirements of the control equipment are necessary to ensure compliance with these emission limitations.
- 2.b** Emission units K001, K002, K003, K004, K006, K007, K008 and K009 shall not use a heat-set ink with a VOC content greater than 43% by weight, a cold-set ink with a VOC content greater than 10% by weight, a fountain solution with a VOC content greater than 1.2 lbs/gal, or a blanket wash (manual or automatic) with a VOC content greater than 5.4 lbs/gal.

Ink means a liquid material applied by a roll printer. Fountain solution means a surface coating 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.

- 2.c** Emissions from this emissions unit shall be vented to a thermal afterburner with a destruction removal efficiency (DRE) of at least 95%.
- 2.d** Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP <sup>1</sup>, 22.0 tons of combined HAPs and 99.0 tons of VOC.

<sup>1</sup> A listing of Hazardous Air Pollutants (HAPs) can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

- 2.f** This emissions unit is subject to the applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as promulgated by the United States Environmental Protection Agency under 40 CFR Part 63. The application and enforcement of these standards are delegated to Ohio EPA. The requirements of 40 CFR Part 63 are also federally enforceable.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K003**

- 2.g** Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average.

**B. Operational Restrictions**

1. The following annual usage limitations shall not be exceeded for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined, based upon a rolling, 12-month summation.

<u>Material:</u>	<u>Limitation:</u>
Heatset ink	8,000,000 pounds
Coldset Ink	450,000 pounds
Heatset Fountain Solution	40,000 gallons
Coldset Fountain Solution	3,000 gallons
Automatic Blanket Wash	3,000 gallons
Manual Blanket Wash	9,000 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. The average combustion temperature within the thermal afterburner, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1500 degrees Fahrenheit.

**C. 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 ink employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. the number of gallons of each fountain solution and blanket wash employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - d. the VOC content of each ink, in percent by weight;
  - e. the individual 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. the individual HAP content of each fountain solution and blanket wash, in pounds per

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K003**

gallon;

- i. the combined HAP content of each fountain solution and blanket wash, in pounds per gallon;
- j. the total monthly VOC (terms C.1.b x C.1.d + terms C.1.c x C.1.g), single HAP (terms C.1.b x C.1.e + terms C.1.c x C.1.h) and combined HAPs (terms C.1.b x C.1.f + terms C.1.c x C.1.i) emission rate for all inks, fountain solutions and blanket washes, in pounds and tons;
- k. the cumulative rolling, 12-month usage summation of total inks, in pounds, and total fountain solutions and blanket washes, in gallons, for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined; and
- l. the facility-wide cumulative rolling, 12-month summation of the VOC (terms C.1.d x C.1.k + terms C.1.g x C.1.k), single HAP (terms C.1.e x C.1.k + terms C.1.h x C.1.k) and combined HAPs (terms C.1.f x C.1.k + terms C.1.i x C.1.k) emission rate for all inks, fountain solutions and blanket washes in pounds and tons.

[Note: The coating 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 thermal afterburner 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 incinerator, when the emissions unit was in operation, dropped below 1500 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.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K003**

5. The permit to install for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined were evaluated based on the actual materials and the design parameters of the emission unit and facility'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 emissions units K001, K002, K003, K004, K006, K007, K008 and K009 combined 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: Naphthalene

TLV (mg/m<sup>3</sup>): 52

Maximum Hourly Emission Rate (lbs/hr): 17.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 776.5

MAGLC (ug/m<sup>3</sup>): 1238

Pollutant: Glycol Ether

TLV (mg/m<sup>3</sup>): 121

Maximum Hourly Emission Rate (lbs/hr): 1.407

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 61.4

MAGLC (ug/m<sup>3</sup>): 2881

Physical changes to or changes in the method of operation of the emissions unit or facility exhaust after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of or use of materials used, 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

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K003**

- c. physical changes to the emissions unit or the facility exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the “Air Toxic Policy:”

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the “Air Toxic Policy” for the change.

#### **D. Reporting Requirements**

1. The permittee shall submit the appropriate reports pursuant to 40 CFR Part 63.830(b).
2. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
  - a. all exceedances of the facility-wide rolling, 12-month summation of VOC, single HAP and combined HAPs limitations;
  - b. all exceedances of the rolling, 12-month summation of inks, fountain solutions and blanket washes for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. all exceedances of the VOC content limitations for ink, in percent by weight, fountain solution and blanket wash, in pounds per gallon;
  - d. 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
  - e. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K003**

Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.

All reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

## **E. 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 31.00 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 300 lbs/hr by the maximum VOC content of 43% by weight, by the substrate retention factor (1.0-0.20)(Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test).

The captured fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 30 gal/hr by the maximum VOC content of 1.2 lbs/gal by the capture efficiency (1-0.30)(Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test). The fugitive fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 30 gal/hr by the maximum VOC content of 1.2 lbs/gal by the fugitive amount (1-0.70)(Ohio EPA, Eng. Guide #56, 7/25/97).

The 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 5.4 lbs/gal and by the substrate retention factor (1.0-0.50)(Ohio EPA, Eng. Guide #56, 7/25/97).

- b. Emission Limitation:  
VOC emissions shall not exceed 34.7 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)(Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test) and dividing by 2000 lbs/ton.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K003**

The 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 1.2 lbs/gal by the capture efficiency (1-0.30)(Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test) 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 1.2 lbs/gal by the fugitive amount (1-0.70) (Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

The manual blanket wash emissions shall be determined by multiplying the maximum manual blanket wash usage of 10,000 gal/hr by the maximum VOC content of 5.4 lbs/gal by the substrate retention factor (1.0-0.50)(Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

c. Emission Limitation:

Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP, 22.0 tons of combined HAPs and 99.0 tons of VOC.

Applicable Compliance Method:

Compliance shall be demonstrated through record keeping found in Section C.1.g above.

d. Emission Limitation:

Emissions from this emissions unit shall be vented to a thermal afterburner with a DRE of at least 95%.

Applicable Compliance Method:

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

- i. The emission testing shall be conducted within 90 days following issuance of this permit. Emission testing conducted 6 months prior to issuance of this permit may satisfy this requirement.
- ii. The emission testing shall be conducted to demonstrate with the DRE of at least 95%.
- iii. The following test methods shall be employed to demonstrate compliance with the allowable DRE: 40 CFR Part 60, Appendix A, Methods 1 through 4, and 25 or 25A, as appropriate.

The control or destruction efficiency defined as the percent reduction of mass emissions between the inlet and outlet of the control system shall be determined in accordance with the test methods and procedures specified in Ohio Administrative Code 3745-21-10(C). The test methods and procedures selected

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K003**

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.

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

- iv. The test(s) shall be conducted while the emissions units venting to the incinerator are operating at or near their maximum capacity and venting emissions to the control device, unless otherwise specified or approved by the Ohio EPA, Central District Office.
- e. Emission Limitation:  
PE/PM10 shall not exceed 0.551 lb/hr.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 thru 4, 5 and/or 201 and the procedures specified in OAC rule 3745-17-03(B)(9). Alternative EPA approved test methods may be used with prior approval from the Ohio EPA.

- f. Emission Limitation:  
PE/PM10 shall not exceed 2.41 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the 0.551 lb/hr limitation by the maximum operating schedule of 8760 hours per year and dividing by 2000 lbs/ton.

- 2. Not later than 30 days prior to any proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. 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, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office 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.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K003**

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office 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 Ohio EPA, Central District Office.

**F. Miscellaneous Requirements**

None

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K004**

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

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K004 - 4-unit Harris N900 heatset web offset lithographic printing press (900 III) and dryer controlled by KATEC thermal afterburner (Terms in this permit supercede those identified in PTI 01-3902 issued 07/15/92.)	OAC rule 3745-31-05(A)(3)	<p>Volatile Organic Compound (VOC) emissions shall not exceed 41.00 lbs/hr and 51.5 tons/yr.</p> <p>Particulate emissions (PE)/particulate matter less than 10 microns (PM10) shall not exceed 0.551 lb/hr and 2.41 tons per year.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05 (D) and OAC rule 3745-17-07(A).</p>
	OAC rule 3745-31-05(D)	See A.2.a below.
	OAC rule 3745-17-11(A)	See A.2.b-d, B.1, and B.2 below.
	OAC rule 3745-17-07(A)(1)	The hourly emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)(2)	See term A.2.f below.
	OAC rule 3745-21-07(G)(6)(a)	The emission limitation and/or control requirements specified in this rule is less stringent than the emission limitations and/or control requirements established pursuant to OAC rule 3745-31-05(D).
		The limitation specified in this rule is less

Vertis Inc

PTI Application: 01-08728

Issued: To be entered upon final issuance

Facility ID: 0125041807

Emissions Unit ID: K004

40 CFR Part 63, Subpart KK

stringent than the limitation established pursuant to OAC rule 3745-31-05(D).

The emission limitations specified in this rule is are equivalent to the emission limitations established pursuant to OAC rule 3745-31-05(D).

See term A.2.e below.

## 2. Additional Terms and Conditions

- 2.a** The emission unit's 41.00 lbs VOC/hr and 51.5 tons VOC/yr emission limitations are based on the emission unit's potential to emit vented through the control equipment referenced below. Therefore, only the monitoring, record keeping or reporting requirements of the control equipment are necessary to ensure compliance with these emission limitations.
- 2.b** Emission units K001, K002, K003, K004, K006, K007, K008 and K009 shall not use a heat-set ink with a VOC content greater than 43% by weight, a cold-set ink with a VOC content greater than 10% by weight, a fountain solution with a VOC content greater than 1.2 lbs/gal, or a blanket wash (manual or automatic) with a VOC content greater than 5.4 lbs/gal.
- Ink means a liquid material applied by a roll printer. Fountain solution means a surface coating 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.
- 2.c** Emissions from this emissions unit shall be vented to a thermal afterburner with a destruction removal efficiency (DRE) of at least 95%.
- 2.d** Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP <sup>1</sup>, 22.0 tons of combined HAPs and 99.0 tons of VOC.

<sup>1</sup> A listing of Hazardous Air Pollutants (HAPs) can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K004**

- 2.f** This emissions unit is subject to the applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as promulgated by the United States Environmental Protection Agency under 40 CFR Part 63. The application and enforcement of these standards are delegated to Ohio EPA. The requirements of 40 CFR Part 63 are also federally enforceable.
- 2.g** Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average.

**B. Operational Restrictions**

- 1. The following annual usage limitations shall not be exceeded for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined, based upon a rolling, 12-month summation.

<u>Material:</u>	<u>Limitation:</u>
Heatset ink	8,000,000 pounds
Coldset Ink	450,000 pounds
Heatset Fountain Solution	40,000 gallons
Coldset Fountain Solution	3,000 gallons
Automatic Blanket Wash	3,000 gallons
Manual Blanket Wash	9,000 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. The average combustion temperature within the thermal afterburner, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1500 degrees Fahrenheit.

**C. 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 ink employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. the number of gallons of each fountain solution and blanket wash employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - d. the VOC content of each ink, in percent by weight;

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K004**

- e. the individual 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. the individual HAP content of each fountain solution and blanket wash, in pounds per gallon;
- i. the combined HAP content of each fountain solution and blanket wash, in pounds per gallon;
- j. the total monthly VOC (terms C.1.b x C.1.d + terms C.1.c x C.1.g), single HAP (terms C.1.b x C.1.e + terms C.1.c x C.1.h) and combined HAPs (terms C.1.b x C.1.f + terms C.1.c x C.1.i) emission rate for all inks, fountain solutions and blanket washes, in pounds and tons;
- k. the cumulative rolling, 12-month usage summation of total inks, in pounds, and total fountain solutions and blanket washes, in gallons, for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined; and
- l. the facility-wide cumulative rolling, 12-month summation of the VOC (terms C.1.d x C.1.k + terms C.1.g x C.1.k), single HAP (terms C.1.e x C.1.k + terms C.1.h x C.1.k) and combined HAPs (terms C.1.f x C.1.k + terms C.1.i x C.1.k) emission rate for all inks, fountain solutions and blanket washes in pounds and tons.

[Note: The coating 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 thermal afterburner 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.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K004**

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 incinerator, when the emissions unit was in operation, dropped below 1500 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.
  
5. The permit to install for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined were evaluated based on the actual materials and the design parameters of the emission unit and facility'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 emissions units K001, K002, K003, K004, K006, K007, K008 and K009 combined 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: Naphthalene

TLV (mg/m<sup>3</sup>): 52

Maximum Hourly Emission Rate (lbs/hr): 17.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 776.5

MAGLC (ug/m<sup>3</sup>):1238

Pollutant: Glycol Ether

TLV (mg/m<sup>3</sup>): 121

Maximum Hourly Emission Rate (lbs/hr): 1.407

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 61.4

MAGLC (ug/m<sup>3</sup>): 2881

Physical changes to or changes in the method of operation of the emissions unit or facility exhaust 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 or use of materials used, 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;

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K004**

- 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 the facility exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the “Air Toxic Policy:”

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the “Air Toxic Policy” for the change.

#### **D. Reporting Requirements**

- 1. The permittee shall submit the appropriate reports pursuant to 40 CFR Part 63.830(b).
- 2. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
  - a. all exceedances of the facility-wide rolling, 12-month summation of VOC, single HAP and combined HAPs limitations;
  - b. all exceedances of the rolling, 12-month summation of inks, fountain solutions and blanket washes for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. all exceedances of the VOC content limitations for ink, in percent by weight, fountain solution and blanket wash, in pounds per gallon;
  - d. 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

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K004**

- e. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.

All reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

## **E. 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 41.00 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 300 lbs/hr by the maximum VOC content of 43% by weight, by the substrate retention factor (1.0-0.20)(Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test).

The captured fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 30 gal/hr by the maximum VOC content of 1.2 lbs/gal by the capture efficiency (1.0-0.30)(Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test). The fugitive fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 30 gal/hr by the maximum VOC content of 1.2 lbs/gal by the fugitive amount (1.0-0.70)(Ohio EPA, Eng. Guide #56, 7/25/97).

The 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 5.4 lbs/gal and by the substrate retention factor (1.0-0.50) (Ohio EPA, Eng. Guide #56, 7/25/97).

The 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 5.4 lbs/gal by the capture efficiency (1.0-0.6)(Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test). 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 5.4 lbs/gal and by the fugitive emissions (1.0-0.4)(Ohio EPA, Eng. Guide #56, 7/25/97).

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K004**

- b. Emission Limitation:  
VOC emissions shall not exceed 51.5 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)(Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test) and dividing by 2000 lbs/ton.

The 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 1.2 lbs/gal by the capture efficiency (1-0.30)(Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test) 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 1.2 lbs/gal by the fugitive amount (1-0.70) (Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

The 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 5.4 lbs/gal by the substrate retention factor (1.0-0.50)(Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

The 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 5.4 lbs/gal by the capture efficiency (1.0-0.6)(Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95)(11/30/93 stack test) 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 5.4 lbs/gal by the fugitive emissions (1.0-0.4)(Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

- c. Emission Limitation:  
Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP, 22.0 tons of combined HAPs and 99.0 tons of VOC.

**Applicable Compliance Method:**

Compliance shall be demonstrated through record keeping found in Section C.1.g above.

- d. Emission Limitation:  
Emissions from this emissions unit shall be vented to a thermal afterburner with a DRE of at least 95%.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K004**

**Applicable Compliance Method:**

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

- i. The emission testing shall be conducted within 90 days following issuance of this permit. Emission testing conducted 6 months prior to issuance of this permit may satisfy this requirement.
- ii. The emission testing shall be conducted to demonstrate with the DRE of at least 95%.
- iii. The following test methods shall be employed to demonstrate compliance with the allowable DRE: 40 CFR Part 60, Appendix A, Methods 1 through 4, and 25 or 25A, as appropriate.

The control or destruction efficiency defined as the percent reduction of mass emissions between the inlet and outlet of the control system shall be determined in accordance with the test methods and procedures specified in Ohio Administrative Code 3745-21-10(C). 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.

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

- iv. The test(s) shall be conducted while the emissions units venting to the incinerator are operating at or near their maximum capacity and venting emissions to the control device, unless otherwise specified or approved by the Ohio EPA, Central District Office.
- e. **Emission Limitation:**  
PE/PM10 shall not exceed 0.551 lb/hr.

**Applicable Compliance Method:**

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 thru 4, 5 and/or 201 and the procedures specified in OAC rule 3745-17-03(B)(9). Alternative EPA approved test methods may be used with prior approval from the Ohio EPA.

- f. **Emission Limitation:**  
PE/PM10 shall not exceed 2.41 tons per year.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K004**

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the 0.551 lb/he limitation by the maximum operating schedule of 8760 hours per year and dividing by 2000 lbs/ton.

2. Not later than 30 days prior to any proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. 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, Central District Office's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office 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 Ohio EPA, Central District Office.

#### **F. Miscellaneous Requirements**

None

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K006**

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

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K006 - 4-unit Harris N954 heatset web offset lithographic printing press (954-2) controlled by Dual Dry integrated dryer/thermal afterburner (Terms in this permit supercede those identified in PTI 01-08092 issued 04/26/00.)	OAC rule 3745-31-05(A)(3)	<p>Volatile Organic Compound (VOC) emissions shall not exceed 31.00 lbs/hr and 34.7 tons/yr.</p> <p>Particulate emissions (PE)/particulate matter less than 10 microns (PM10) shall not exceed 0.551 lb/hr and 2.41 tons per year.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D) and OAC rule 3745-17-07(A).</p> <p>See A.2.a below.</p>
	OAC rule 3745-31-05(D)	See A.2.b-d, B.1, and B.2 below.
	OAC rule 3745-17-11(A)	The hourly emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	See term A.2.f below.
	OAC rule 3745-21-07(G)(2)	The emission limitation and/or control requirements specified in this rule is less stringent than the emission limitations and/or control requirements established pursuant to OAC rule 3745-31-05(D).
	OAC rule 3745-21-07(G)(6)(a)	The limitation specified in this rule is less

Vertis Inc

PTI Application: 01-08728

Issued: To be entered upon final issuance

Facility ID: 0125041807

Emissions Unit ID: K006

40 CFR Part 63, Subpart KK

stringent than the limitation established pursuant to OAC rule 3745-31-05(D).

The emission limitations specified in this rule is are equivalent to the emission limitations established pursuant to OAC rule 3745-31-05(D).

See term A.2.e below.

## 2. Additional Terms and Conditions

- 2.a** The emission unit's 31.00 lbs VOC/hr and 34.7 tons VOC/yr emission limitations are based on the emission unit's potential to emit vented through the control equipment referenced below. Therefore, only the monitoring, record keeping or reporting requirements of the control equipment are necessary to ensure compliance with these emission limitations.
- 2.b** Emission units K001, K002, K003, K004, K006, K007, K008 and K009 shall not use a heat-set ink with a VOC content greater than 43% by weight, a cold-set ink with a VOC content greater than 10% by weight, a fountain solution with a VOC content greater than 1.2 lbs/gal, or a blanket wash (manual or automatic) with a VOC content greater than 5.4 lbs/gal.
- Ink means a liquid material applied by a roll printer. Fountain solution means a surface coating 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.
- 2.c** Emissions from this emissions unit shall be vented to a thermal afterburner with a destruction removal efficiency (DRE) of at least 95%.
- 2.d** Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP <sup>1</sup>, 22.0 tons of combined HAPs and 99.0 tons of VOC.

<sup>1</sup> A listing of Hazardous Air Pollutants (HAPs) can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K006**

- 2.f** This emissions unit is subject to the applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as promulgated by the United States Environmental Protection Agency under 40 CFR Part 63. The application and enforcement of these standards are delegated to Ohio EPA. The requirements of 40 CFR Part 63 are also federally enforceable.
- 2.g** Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average.

**B. Operational Restrictions**

- 1. The following annual usage limitations shall not be exceeded for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined, based upon a rolling, 12-month summation.

<u>Material:</u>	<u>Limitation:</u>
Heatset ink	8,000,000 pounds
Coldset Ink	450,000 pounds
Heatset Fountain Solution	40,000 gallons
Coldset Fountain Solution	3,000 gallons
Automatic Blanket Wash	3,000 gallons
Manual Blanket Wash	9,000 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. The average combustion temperature within the thermal afterburner, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1500 degrees Fahrenheit.

**C. 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 ink employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. the number of gallons of each fountain solution and blanket wash employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - d. the VOC content of each ink, in percent by weight;

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K006**

- e. the individual 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. the individual HAP content of each fountain solution and blanket wash, in pounds per gallon;
- i. the combined HAP content of each fountain solution and blanket wash, in pounds per gallon;
- j. the total monthly VOC (terms C.1.b x C.1.d + terms C.1.c x C.1.g), single HAP (terms C.1.b x C.1.e + terms C.1.c x C.1.h) and combined HAPs (terms C.1.b x C.1.f + terms C.1.c x C.1.i) emission rate for all inks, fountain solutions and blanket washes, in pounds and tons;
- k. the cumulative rolling, 12-month usage summation of total inks, in pounds, and total fountain solutions and blanket washes, in gallons, for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined; and
- l. the facility-wide cumulative rolling, 12-month summation of the VOC (terms C.1.d x C.1.k + terms C.1.g x C.1.k), single HAP (terms C.1.e x C.1.k + terms C.1.h x C.1.k) and combined HAPs (terms C.1.f x C.1.k + terms C.1.i x C.1.k) emission rate for all inks, fountain solutions and blanket washes in pounds and tons.

[Note: The coating 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 thermal afterburner 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.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K006**

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 incinerator, when the emissions unit was in operation, dropped below 1500 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.
  
5. The permit to install for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined were evaluated based on the actual materials and the design parameters of the emission unit and facility'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 emissions units K001, K002, K003, K004, K006, K007, K008 and K009 combined 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: Naphthalene

TLV (mg/m<sup>3</sup>): 52

Maximum Hourly Emission Rate (lbs/hr): 17.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 776.5

MAGLC (ug/m<sup>3</sup>):1238

Pollutant: Glycol Ether

TLV (mg/m<sup>3</sup>): 121

Maximum Hourly Emission Rate (lbs/hr): 1.407

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 61.4

MAGLC (ug/m<sup>3</sup>): 2881

Physical changes to or changes in the method of operation of the emissions unit or facility exhaust 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 or use of materials used, 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;

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K006**

- 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 the facility exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the “Air Toxic Policy:”

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the “Air Toxic Policy” for the change.

#### **D. Reporting Requirements**

- 1. The permittee shall submit the appropriate reports pursuant to 40 CFR Part 63.830(b).
- 2. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
  - a. all exceedances of the facility-wide rolling, 12-month summation of VOC, single HAP and combined HAPs limitations;
  - b. all exceedances of the rolling, 12-month summation of inks, fountain solutions and blanket washes for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. all exceedances of the VOC content limitations for ink, in percent by weight, fountain solution and blanket wash, in pounds per gallon;
  - d. 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

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K006**

- e. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.

All reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

## **E. 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 31.00 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 300 lbs/hr by the maximum VOC content of 43% by weight, by the substrate retention factor (1.0-0.20)(Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95)(08/30/00 stack test).

The captured fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 30 gal/hr by the maximum VOC content of 1.2 lbs/gal by the capture efficiency (1-0.30) (Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95)(08/30/00 stack test). The fugitive fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 30 gal/hr by the maximum VOC content of 1.2 lbs/gal by the fugitive amount (1-0.70)(Ohio EPA, Eng. Guide #56, 7/25/97).

The 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 5.4 lbs/gal and by the substrate retention factor (1.0-0.50)(Ohio EPA, Eng. Guide #56, 7/25/97).

- b. Emission Limitation:  
VOC emissions shall not exceed 34.7 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

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K006**

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)(Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95)(08/30/00 stack test) and dividing by 2000 lbs/ton.

The 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 1.2 lbs/gal by the capture efficiency (1-0.30)(Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95)(08/30/00 stack test) 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 1.2 lbs/gal by the fugitive amount (1-0.70) (Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

The 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 5.4 lbs/gal by the substrate retention factor (1.0-0.50)(Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

c. Emission Limitation:

Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP, 22.0 tons of combined HAPs and 99.0 tons of VOC.

Applicable Compliance Method:

Compliance shall be demonstrated through record keeping found in Section C.1.g above.

d. Emission Limitation:

Emissions from this emissions unit shall be vented to a thermal afterburner with a DRE of at least 95%.

Applicable Compliance Method:

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

- i. The emission testing shall be conducted within one year following issuance of this permit.
- ii. The emission testing shall be conducted to demonstrate with the DRE of at least 95%.
- iii. The following test methods shall be employed to demonstrate compliance with the allowable DRE: 40 CFR Part 60, Appendix A, Methods 1 through 4, and 25 or 25A, as appropriate.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K006**

The control or destruction efficiency defined as the percent reduction of mass emissions between the inlet and outlet of the control system shall be determined in accordance with the test methods and procedures specified in Ohio Administrative Code 3745-21-10(C). 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.

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

iv. The test(s) shall be conducted while the emissions units venting to the incinerator are operating at or near their maximum capacity and venting emissions to the control device, unless otherwise specified or approved by the Ohio EPA, Central District Office.

e. Emission Limitation:  
PE/PM10 shall not exceed 0.551 lb/hr.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 thru 4, 5 and/or 201 and the procedures specified in OAC rule 3745-17-03(B)(9). Alternative EPA approved test methods may be used with prior approval from the Ohio EPA.

f. Emission Limitation:  
PE/PM10 shall not exceed 2.41 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the 0.551 lb/hr limitation by the maximum operating schedule of 8760 hours per year and dividing by 2000 lbs/ton.

2. Not later than 30 days prior to any proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. 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, Central District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Central District Office 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.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K006**

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office 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 Ohio EPA, Central District Office.

**F. Miscellaneous Requirements**

None

Vertis Inc

PTI Application: 01-08728

Issued: To be entered upon final issuance

Facility ID: 0125041807

Emissions Unit ID: K007

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

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K007 - 12-unit Harris NC400 coldset web offset lithographic printing press (410)	OAC rule 3745-31-05(A)(3)	Volatile Organic Compound (VOC) emissions shall not exceed 39.00 lbs/hr and 22.0 tons/yr.
		Particulate emissions (PE)/particulate matter less than 10 microns (PM10) shall not exceed 0.551 lb/hr and 2.41 tons per year.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05 (D) and OAC rule 3745-17-07(A).
		See A.2.a below.
	OAC rule 3745-31-05(D)	See A.2.b-c, B.1 below.
	OAC rule 3745-17-11(A)	The hourly emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	See term A.2.f below.
	OAC rule 3745-21-07(G)(2)	The emission limitation and/or control requirements specified in this rule is less stringent than the emission limitations and/or control requirements established pursuant to OAC rule 3745-31-05(D).
	OAC rule 3745-21-07(G)(6)(a)	The limitation specified in this rule is less

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K007**

40 CFR Part 63, Subpart KK

stringent than the limitation established pursuant to OAC rule 3745-31-05(D).

The emission limitations specified in this rule is are equivalent to the emission limitations established pursuant to OAC rule 3745-31-05(D).

See term A.2.e below.

## **2. Additional Terms and Conditions**

- 2.a** The emission unit's 39.00 lbs VOC/hr and 22.0 tons VOC/yr emission limitations are based on the emission unit's potential to emit. Therefore, no monitoring, record keeping or reporting requirements are necessary to ensure compliance with these emission limitations.
- 2.b** Emission units K001, K002, K003, K004, K006, K007, K008 and K009 shall not use a heat-set ink with a VOC content greater than 43% by weight, a cold-set ink with a VOC content greater than 10% by weight, a fountain solution with a VOC content greater than 1.2 lbs/gal, or a blanket wash (manual or automatic) with a VOC content greater than 5.4 lbs/gal.

Ink means a liquid material applied by a roll printer. Fountain solution means a surface coating 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.

- 2.c** Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP <sup>1</sup>, 22.0 tons of combined HAPs and 99.0 tons of VOC.

<sup>1</sup> A listing of Hazardous Air Pollutants (HAPs) can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

- 2.d** This emissions unit is subject to the applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as promulgated by the United States Environmental Protection Agency under 40 CFR Part 63. The application and enforcement of these standards are delegated to Ohio EPA. The requirements of 40 CFR Part 63 are also federally enforceable.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K007**

- 2.e Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average.
- 2.f Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP, 22.0 tons of combined HAPs and 99.0 tons of VOC.

**B. Operational Restrictions**

- 1. The following annual usage limitations shall not be exceeded for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined, based upon a rolling, 12-month summation.

<u>Material:</u>	<u>Limitation:</u>
Heatset ink	8,000,000 pounds
Coldset Ink	450,000 pounds
Heatset Fountain Solution	40,000 gallons
Coldset Fountain Solution	3,000 gallons
Automatic Blanket Wash	3,000 gallons
Manual Blanket Wash	9,000 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.

**C. 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 ink employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. the number of gallons of each fountain solution and blanket wash employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - d. the VOC content of each ink, in percent by weight;
  - e. the individual HAP content of each ink, in percent by weight;
  - f. the combined HAP content of each ink, in percent by weigh;
  - g. the VOC content of each fountain solution and blanket wash, in pounds per gallon;

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K007**

- h. the individual HAP content of each fountain solution and blanket wash, in pounds per gallon;
- i. the combined HAP content of each fountain solution and blanket wash, in pounds per gallon;
- j. the total monthly VOC (terms C.1.b x C.1.d + terms C.1.c x C.1.g), single HAP (terms C.1.b x C.1.e + terms C.1.c x C.1.h) and combined HAPs (terms C.1.b x C.1.f + terms C.1.c x C.1.i) emission rate for all inks, fountain solutions and blanket washes, in pounds and tons;
- k. the cumulative rolling, 12-month usage summation of total inks, in pounds, and total fountain solutions and blanket washes, in gallons, for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined; and
- l. the facility-wide cumulative rolling, 12-month summation of the VOC (terms C.1.d x C.1.k + terms C.1.g x C.1.k), single HAP (terms C.1.e x C.1.k + terms C.1.h x C.1.k) and combined HAPs (terms C.1.f x C.1.k + terms C.1.i x C.1.k) emission rate for all inks, fountain solutions and blanket washes in pounds and tons.

[Note: The coating 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 permit to install for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined were evaluated based on the actual materials and the design parameters of the emission unit and facility'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 emissions units K001, K002, K003, K004, K006, K007, K008 and K009 combined 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: Napthalene

TLV (mg/m<sup>3</sup>): 52

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K007**

Maximum Hourly Emission Rate (lbs/hr): 17.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 776.5

MAGLC (ug/m3):1238

Pollutant: Glycol Ether

TLV (mg/m3): 121

Maximum Hourly Emission Rate (lbs/hr): 1.407

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 61.4

MAGLC (ug/m3): 2881

Physical changes to or changes in the method of operation of the emissions unit or facility exhaust after its installation or modification could affect the parameters used to determine whether or not the “Air Toxic Policy” is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the “Air Toxic Policy” will still be satisfied. If, upon evaluation, the permittee determines that the “Air Toxic Policy” will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the “Air Toxic Policy” include the following:

- a. changes in the composition of or use of materials used, 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 the facility exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
4. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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.);

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K007**

- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the “Air Toxic Policy” for the change.

#### **D. Reporting Requirements**

1. The permittee shall submit the appropriate reports pursuant to 40 CFR Part 63.830(b).
2. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
  - a. all exceedances of the facility-wide rolling, 12-month summation of VOC, single HAP and combined HAPs limitations;
  - b. all exceedances of the rolling, 12-month summation of inks, fountain solutions and blanket washes for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined; and
  - c. all exceedances of the VOC content limitations for ink, in percent by weight, fountain solution and blanket wash, in pounds per gallon.

Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.

All reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

#### **E. 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 39.00 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 200 lbs/hr by the maximum VOC content of 10%, by weight, by the substrate retention factor (1.0-0.95)(Ohio EPA, Eng. Guide #56, 7/25/97).

The fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 20 gal/hr by the maximum VOC content of 1.2 lbs/gal.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K007**

The 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 5.4 lbs/gal and by the substrate retention factor (1.0-0.50)(Ohio EPA, Eng. Guide #56, 7/25/97).

- b. Emission Limitation:  
VOC emissions shall not exceed 22.0 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 1,000,000 lbs/yr by the maximum VOC content of 10%, by weight, by the substrate retention factor (1.0-0.95)(Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

The fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 10,000 gal/yr by the maximum VOC content of 1.2 lbs/gal and dividing by 2000 lbs/ton.

The 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 5.4 lbs/gal by the substrate retention factor (1.0-0.50)(Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

- c. Emission Limitation:  
Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP, 22.0 tons of combined HAPs and 99.0 tons of VOC.

Applicable Compliance Method:

Compliance shall be demonstrated through record keeping found in Section C.1.1 above.

- d. Emission Limitation:  
PE/PM10 shall not exceed 0.551 lb/hr.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 thru 4, 5 and/or 201 and the procedures specified in OAC rule 3745-17-03(B)(9). Alternative EPA approved test methods may be used with prior approval from the Ohio EPA.

- e. Emission Limitation:  
PE/PM10 shall not exceed 2.41 tons per year.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K007**

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the 0.551 lb/he limitation by the maximum operating schedule of 8760 hours per year and dividing by 2000 lbs/ton.

**F. Miscellaneous Requirements**

None

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K008**

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

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K008 - 4-unit Goss C700 heatset web offset lithographic printing press (701) and dryer controlled by RTO thermal afterburner (Terms in this permit supercede those identified in PTI 01-6403 issued 10/17/96.)	OAC rule 3745-31-05(A)(3)	Volatile Organic Compound (VOC) emissions shall not exceed 44.00 lbs/hr and 51.5 tons/yr.
	Particulate emissions (PE)/particulate matter less than 10 microns (PM10) shall not exceed 0.551 lb/hr and 2.41 tons per year.	
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05 (D) and OAC rule 3745-17-07(A).
		See A.2.a below.
	OAC rule 3745-31-05(D)	See A.2.b-d, B.1, and B.2 below.
	OAC rule 3745-17-11(A)	The hourly emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-17-07(A)(1)	See term A.2.f below.
	OAC rule 3745-21-07(G)(2)	The emission limitation and/or control requirements specified in this rule is less stringent than the emission limitations and/or control requirements established pursuant to OAC rule 3745-31-05(D).
	OAC rule 3745-21-07(G)(6)(a)	The limitation specified in this rule is less

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K008**

40 CFR Part 63, Subpart KK

stringent than the limitation established pursuant to OAC rule 3745-31-05(D).

The emission limitations specified in this rule is are equivalent to the emission limitations established pursuant to OAC rule 3745-31-05(D).

See term A.2.e below.

## **2. Additional Terms and Conditions**

- 2.a** The emission unit's 44.00 lbs VOC/hr and 51.5 tons VOC/yr emission limitations are based on the emission unit's potential to emit vented through the control equipment referenced below. Therefore, only the monitoring, record keeping or reporting requirements of the control equipment are necessary to ensure compliance with these emission limitations.
- 2.b** Emission units K001, K002, K003, K004, K006, K007, K008 and K009 shall not use a heat-set ink with a VOC content greater than 43% by weight, a cold-set ink with a VOC content greater than 10% by weight, a fountain solution with a VOC content greater than 1.2 lbs/gal, or a blanket wash (manual or automatic) with a VOC content greater than 5.4 lbs/gal.
- Ink means a liquid material applied by a roll printer. Fountain solution means a surface coating 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.
- 2.c** Emissions from this emissions unit shall be vented to a thermal afterburner with a destruction removal efficiency (DRE) of at least 95%.
- 2.d** Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP <sup>1</sup>, 22.0 tons of combined HAPs and 99.0 tons of VOC.

<sup>1</sup> A listing of Hazardous Air Pollutants (HAPs) can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K008**

- 2.f** This emissions unit is subject to the applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as promulgated by the United States Environmental Protection Agency under 40 CFR Part 63. The application and enforcement of these standards are delegated to Ohio EPA. The requirements of 40 CFR Part 63 are also federally enforceable.
- 2.g** Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average.

**B. Operational Restrictions**

1. The following annual usage limitations shall not be exceeded for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined, based upon a rolling, 12-month summation.

<u>Material:</u>	<u>Limitation:</u>
Heatset ink	8,000,000 pounds
Coldset Ink	450,000 pounds
Heatset Fountain Solution	40,000 gallons
Coldset Fountain Solution	3,000 gallons
Automatic Blanket Wash	3,000 gallons
Manual Blanket Wash	9,000 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. The average combustion temperature within the thermal afterburner, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1500 degrees Fahrenheit.

**C. 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 ink employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. the number of gallons of each fountain solution and blanket wash employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - d. the VOC content of each ink, in percent by weight;

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K008**

- e. the individual 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. the individual HAP content of each fountain solution and blanket wash, in pounds per gallon;
- i. the combined HAP content of each fountain solution and blanket wash, in pounds per gallon;
- j. the total monthly VOC (terms C.1.b x C.1.d + terms C.1.c x C.1.g), single HAP (terms C.1.b x C.1.e + terms C.1.c x C.1.h) and combined HAPs (terms C.1.b x C.1.f + terms C.1.c x C.1.i) emission rate for all inks, fountain solutions and blanket washes, in pounds and tons;
- k. the cumulative rolling, 12-month usage summation of total inks, in pounds, and total fountain solutions and blanket washes, in gallons, for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined; and
- l. the facility-wide cumulative rolling, 12-month summation of the VOC (terms C.1.d x C.1.k + terms C.1.g x C.1.k), single HAP (terms C.1.e x C.1.k + terms C.1.h x C.1.k) and combined HAPs (terms C.1.f x C.1.k + terms C.1.i x C.1.k) emission rate for all inks, fountain solutions and blanket washes in pounds and tons.

[Note: The coating 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 thermal afterburner 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.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K008**

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 incinerator, when the emissions unit was in operation, dropped below 1500 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.
  
5. The permit to install for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined were evaluated based on the actual materials and the design parameters of the emission unit and facility'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 emissions units K001, K002, K003, K004, K006, K007, K008 and K009 combined 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: Naphthalene

TLV (mg/m<sup>3</sup>): 52

Maximum Hourly Emission Rate (lbs/hr): 17.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 776.5

MAGLC (ug/m<sup>3</sup>):1238

Pollutant: Glycol Ether

TLV (mg/m<sup>3</sup>): 121

Maximum Hourly Emission Rate (lbs/hr): 1.407

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 61.4

MAGLC (ug/m<sup>3</sup>): 2881

Physical changes to or changes in the method of operation of the emissions unit or facility exhaust 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 or use of materials used, 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;

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K008**

- 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 the facility exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the “Air Toxic Policy:”

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the “Air Toxic Policy” for the change.

**D. Reporting Requirements**

1. The permittee shall submit the appropriate reports pursuant to 40 CFR Part 63.830(b).
2. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
  - a. all exceedances of the facility-wide rolling, 12-month summation of VOC, single HAP and combined HAPs limitations;
  - b. all exceedances of the rolling, 12-month summation of inks, fountain solutions and blanket washes for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. all exceedances of the VOC content limitations for ink, in percent by weight, fountain solution and blanket wash, in pounds per gallon;
  - d. 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
  - e. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.

All reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

**E. 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 44.00 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 350 lbs/hr by the maximum VOC content of 43%, by weight, by the substrate retention factor (1.0-0.20) (Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95)(11/06/96 stack test).

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K008**

The captured fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 35 gal/hr by the maximum VOC content of 1.2 lbs/gal by the capture efficiency (1-0.30) (Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95)(11/06/96 stack test). The fugitive fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 35 gal/hr by the maximum VOC content of 1.2 lbs/gal by the fugitive amount (1-0.70)(Ohio EPA, Eng. Guide #56, 7/25/97).

The 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 5.4 lbs/gal and by the substrate retention factor (1.0-0.50)(Ohio EPA, Eng. Guide #56, 7/25/97).

The 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 5.4 lbs/gal by the capture efficiency (1.0-0.6)(Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95)(11/06/96 stack test). 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 5.4 lbs/gal and by the fugitive emissions (1.0-0.4)(Ohio EPA, Eng. Guide #56, 7/25/97).

- b. Emission Limitation:  
VOC emissions shall not exceed 51.5 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)(Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95)(11/06/96 stack test) and dividing by 2000 lbs/ton.

The 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 1.2 lbs/gal by the capture efficiency (1-0.30)(Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95)(11/06/96 stack test) 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 1.2 lbs/gal by the fugitive amount (1-0.70) (Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

The 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 5.4 lbs/gal by the substrate retention factor (1.0-0.50) (Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K008**

The 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 5.4 lbs/gal by the capture efficiency (1.0-0.6)(Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95)(11/06/96 stack test) 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 5.4 lbs/gal by the fugitive emissions (1.0-0.4)(Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

c. **Emission Limitation:**

Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP, 22.0 tons of combined HAPs and 99.0 tons of VOC.

**Applicable Compliance Method:**

Compliance shall be demonstrated through record keeping found in Section C.1.g above.

d. **Emission Limitation:**

Emissions from this emissions unit shall be vented to a thermal afterburner with a DRE of at least 95%.

**Applicable Compliance Method:**

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

- i. The emission testing shall be conducted within 90 days following issuance of this permit. Emission testing conducted 6 months prior to issuance of this permit may satisfy this requirement.
- ii. The emission testing shall be conducted to demonstrate with the DRE of at least 95%.
- iii. The following test methods shall be employed to demonstrate compliance with the allowable DRE: 40 CFR Part 60, Appendix A, Methods 1 through 4, and 25 or 25A, as appropriate.

The control or destruction efficiency defined as the percent reduction of mass emissions between the inlet and outlet of the control system shall be determined in accordance with the test methods and procedures specified in Ohio Administrative Code 3745-21-10(C). 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.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K008**

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

iv. The test(s) shall be conducted while the emissions units venting to the incinerator are operating at or near their maximum capacity and venting emissions to the control device, unless otherwise specified or approved by the Ohio EPA, Central District Office.

e. Emission Limitation:  
PE/PM10 shall not exceed 0.551 lb/hr.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 thru 4, 5 and/or 201 and the procedures specified in OAC rule 3745-17-03(B)(9). Alternative EPA approved test methods may be used with prior approval from the Ohio EPA.

f. Emission Limitation:  
PE/PM10 shall not exceed 2.41 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the 0.551 lb/hr limitation by the maximum operating schedule of 8760 hours per year and dividing by 2000 lbs/ton.

2. Not later than 30 days prior to any proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. 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, Central District Office's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office 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 Ohio EPA, Central District Office.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K008**

**F. Miscellaneous Requirements**

None

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K009**

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

**A. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K009 - 4-unit Goss C700 heatset web offset lithographic printing press (702) controlled by Dual Dry II integrated dryer/thermal afterburner (Terms in this permit supercede those identified in PTI 01-08443 issued 08/22/02.)	OAC rule 3745-31-05(A)(3)	<p>Volatile Organic Compound (VOC) emissions shall not exceed 44.00 lbs/hr and 51.5 tons/yr.</p> <p>Particulate emissions (PE)/particulate matter less than 10 microns (PM10) shall not exceed 0.551 lb/hr and 2.41 tons per year.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05 (D) and OAC rule 3745-17-07(A).</p>
	OAC rule 3745-31-05(D)	See A.2.a below.
	OAC rule 3745-17-11(A)	See A.2.b-d, B.1, and B.2 below.
	OAC rule 3745-17-07(A)(1)	The hourly emission limitation specified in this rule is less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)(2)	See term A.2.f below.
	OAC rule 3745-21-07(G)(6)(a)	The emission limitation and/or control requirements specified in this rule is less stringent than the emission limitations and/or control requirements established pursuant to OAC rule 3745-31-05(D).
		The limitation specified in this rule is less

Vertis Inc

PTI Application: 01-08728

Issued: To be entered upon final issuance

Facility ID: 0125041807

Emissions Unit ID: K009

40 CFR Part 63, Subpart KK

stringent than the limitation established pursuant to OAC rule 3745-31-05(D).

The emission limitations specified in this rule is are equivalent to the emission limitations established pursuant to OAC rule 3745-31-05(D).

See term A.2.e below.

## 2. Additional Terms and Conditions

- 2.a** The emission unit's 44.00 lbs VOC/hr and 51.5 tons VOC/yr emission limitations are based on the emission unit's potential to emit vented through the control equipment referenced below. Therefore, only the monitoring, record keeping or reporting requirements of the control equipment are necessary to ensure compliance with these emission limitations.
- 2.b** Emission units K001, K002, K003, K004, K006, K007, K008 and K009 shall not use a heat-set ink with a VOC content greater than 43% by weight, a cold-set ink with a VOC content greater than 10% by weight, a fountain solution with a VOC content greater than 1.2 lbs/gal, or a blanket wash (manual or automatic) with a VOC content greater than 5.4 lbs/gal.
- Ink means a liquid material applied by a roll printer. Fountain solution means a surface coating 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.
- 2.c** Emissions from this emissions unit shall be vented to a thermal afterburner with a destruction removal efficiency (DRE) of at least 95%.
- 2.d** Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP <sup>1</sup>, 22.0 tons of combined HAPs and 99.0 tons of VOC.

<sup>1</sup> A listing of Hazardous Air Pollutants (HAPs) can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting your Ohio EPA field office or local air agency contact. This information does not have to be kept on a line-by-line basis.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K009**

**2.f** This emissions unit is subject to the applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as promulgated by the United States Environmental Protection Agency under 40 CFR Part 63. The application and enforcement of these standards are delegated to Ohio EPA. The requirements of 40 CFR Part 63 are also federally enforceable.

**2.g** Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average.

**B. Operational Restrictions**

1. The following annual usage limitations shall not be exceeded for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined, based upon a rolling, 12-month summation.

<u>Material:</u>	<u>Limitation:</u>
Heatset ink	8,000,000 pounds
Coldset Ink	450,000 pounds
Heatset Fountain Solution	40,000 gallons
Coldset Fountain Solution	3,000 gallons
Automatic Blanket Wash	3,000 gallons
Manual Blanket Wash	9,000 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. The average combustion temperature within the thermal afterburner, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 1500 degrees Fahrenheit.

**C. 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 ink employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. the number of gallons of each fountain solution and blanket wash employed for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - d. the VOC content of each ink, in percent by weight;

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K009**

- e. the individual 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. the individual HAP content of each fountain solution and blanket wash, in pounds per gallon;
- i. the combined HAP content of each fountain solution and blanket wash, in pounds per gallon;
- j. the total monthly VOC (terms C.1.b x C.1.d + terms C.1.c x C.1.g), single HAP (terms C.1.b x C.1.e + terms C.1.c x C.1.h) and combined HAPs (terms C.1.b x C.1.f + terms C.1.c x C.1.i) emission rate for all inks, fountain solutions and blanket washes, in pounds and tons;
- k. the cumulative rolling, 12-month usage summation of total inks, in pounds, and total fountain solutions and blanket washes, in gallons, for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined; and
- l. the facility-wide cumulative rolling, 12-month summation of the VOC (terms C.1.d x C.1.k + terms C.1.g x C.1.k), single HAP (terms C.1.e x C.1.k + terms C.1.h x C.1.k) and combined HAPs (terms C.1.f x C.1.k + terms C.1.i x C.1.k) emission rate for all inks, fountain solutions and blanket washes in pounds and tons.

[Note: The coating 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 thermal afterburner 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.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K009**

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 incinerator, when the emissions unit was in operation, dropped below 1500 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.
  
5. The permit to install for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined were evaluated based on the actual materials and the design parameters of the emission unit and facility'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 emissions units K001, K002, K003, K004, K006, K007, K008 and K009 combined 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: Naphthalene

TLV (mg/m<sup>3</sup>): 52

Maximum Hourly Emission Rate (lbs/hr): 17.79

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 776.5

MAGLC (ug/m<sup>3</sup>):1238

Pollutant: Glycol Ether

TLV (mg/m<sup>3</sup>): 121

Maximum Hourly Emission Rate (lbs/hr): 1.407

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 61.4

MAGLC (ug/m<sup>3</sup>): 2881

Physical changes to or changes in the method of operation of the emissions unit or facility exhaust 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 or use of materials used, 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;

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K009**

- 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 the facility exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. If the permittee determines that the “Air Toxic Policy” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a “modification” under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the “Air Toxic Policy:”

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the “Air Toxic Policy”; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the “Air Toxic Policy” for the change.

#### **D. Reporting Requirements**

- 1. The permittee shall submit the appropriate reports pursuant to 40 CFR Part 63.830(b).
- 2. The permittee shall submit quarterly deviation (excursion) reports which identify the following:
  - a. all exceedances of the facility-wide rolling, 12-month summation of VOC, single HAP and combined HAPs limitations;
  - b. all exceedances of the rolling, 12-month summation of inks, fountain solutions and blanket washes for emission units K001, K002, K003, K004, K006, K007, K008 and K009 combined;
  - c. all exceedances of the VOC content limitations for ink, in percent by weight, fountain solution and blanket wash, in pounds per gallon;
  - d. 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

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K009**

- e. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

Exceeding the rolling, 12-month limit is a violation for each day of the last month of each 12 month period in which the limit is exceeded, regardless of whether a compliance plan is submitted.

All reports are due by the date described in Part 1 - General Terms and Conditions of this permit under section (A)(2).

## **E. 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 44.00 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 350 lbs/hr by the maximum VOC content of 43%, by weight, by the substrate retention factor (1.0-0.20)(Ohio EPA, Eng. Guide #56, 7/25/97) and by the minimum destruction efficiency (1.0-0.95).

The captured fountain solution emissions shall be determined by multiplying the maximum fountain solution usage of 35 gal/hr by the maximum VOC content of 1.2 lbs/gal by the capture efficiency (1-0.30)(Ohio EPA, Eng. Guide #56, 7/25/97) 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 35 gal/hr by the maximum VOC content of 1.2 lbs/gal by the fugitive amount (1-0.70) (Ohio EPA, Eng. Guide #56, 7/25/97).

The 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 5.4 lbs/gal and by the substrate retention factor (1.0-0.50) (Ohio EPA, Eng. Guide #56, 7/25/97).

The 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 5.4 lbs/gal by the capture efficiency (1.0-0.6)(Ohio EPA, Eng. Guide #56, 7/25/97) 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 5.4 lbs/gal and by the fugitive emissions (1.0-0.4)(Ohio EPA, Eng. Guide #56, 7/25/97).

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K009**

- b. Emission Limitation:  
VOC emissions shall not exceed 51.5 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)(Ohio EPA, Eng. Guide #56, 7/25/97) by the minimum destruction efficiency (1.0-0.95) and dividing by 2000 lbs/ton.

The 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 1.2 lbs/gal by the capture efficiency (1-0.30)(Ohio EPA, Eng. Guide #56, 7/25/97) 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 1.2 lbs/gal by the fugitive amount (1-0.70)(Ohio EPA, Eng. Guide #68, 7/25/97) and dividing by 2000 lbs/ton.

The 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 5.4 lbs/gal by the substrate retention factor (1.0-0.50)(Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

The 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 5.4 lbs/gal by the capture efficiency (1.0-0.6)(Ohio EPA, Eng. Guide #56, 7/25/97) 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 5.4 lbs/gal by the fugitive emissions (1.0-0.4)(Ohio EPA, Eng. Guide #56, 7/25/97) and dividing by 2000 lbs/ton.

- c. Emission Limitation:  
Facility wide emissions shall not exceed the following limitations during any rolling, 12-month period: 9.0 tons of single HAP, 22.0 tons of combined HAPs and 99.0 tons of VOC.

Applicable Compliance Method:

Compliance shall be demonstrated through record keeping found in Section C.1.g above.

- d. Emission Limitation:  
Emissions from this emissions unit shall be vented to a thermal afterburner with a DRE of at least 95%.

**Vertis Inc**

**PTI Application: 01-08728**

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

**Facility ID: 0125041807**

**Emissions Unit ID: K009**

**Applicable Compliance Method:**

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

- i. The emission testing shall be conducted within 3 months following installation of this emissions unit.
- ii. The emission testing shall be conducted to demonstrate with the DRE of at least 95%.
- iii. The following test methods shall be employed to demonstrate compliance with the allowable DRE: 40 CFR Part 60, Appendix A, Methods 1 through 4, and 25 or 25A, as appropriate.

The control or destruction efficiency defined as the percent reduction of mass emissions between the inlet and outlet of the control system shall be determined in accordance with the test methods and procedures specified in Ohio Administrative Code 3745-21-10(C). 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.

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

- iv. The test(s) shall be conducted while the emissions units venting to the incinerator are operating at or near their maximum capacity and venting emissions to the control device, unless otherwise specified or approved by the Ohio EPA, Central District Office.
- e. **Emission Limitation:**  
PE/PM10 shall not exceed 0.551 lb/hr.

**Applicable Compliance Method:**

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 thru 4, 5 and/or 201 and the procedures specified in OAC rule 3745-17-03(B)(9). Alternative EPA approved test methods may be used with prior approval from the Ohio EPA.

- f. **Emission Limitation:**  
PE/PM10 shall not exceed 2.41 tons per year.

**Vertis Inc**

**PTI Application: 01-08728**

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**Facility ID: 0125041807**

**Emissions Unit ID: K009**

Applicable Compliance Method:

Compliance shall be demonstrated by multiplying the 0.551 lb/he limitation by the maximum operating schedule of 8760 hours per year and dividing by 2000 lbs/ton.

2. Not later than 30 days prior to any proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Central District Office. 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, Central District Office's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Central District Office 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 Ohio EPA, Central District Office.

#### **F. Miscellaneous Requirements**

None