

Facility ID: 1483040077 Issuance type: Title V Draft Permit

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In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part III" and before "I. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

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## Part II - Specific Facility Terms and Conditions

### a State and Federally Enforceable Section

1. The following emissions units at this facility are subject to the requirements of 40 CFR Section 63.6(e)(3) - startup, shutdown, and malfunction plan:

K008 through K011

These emissions units shall comply with the requirements specified in A.1.a through A.1.h of these terms and conditions.

The following emissions units at this facility are subject to the requirements of 40 CFR Section 63.6(e)(3) - startup, shutdown, and malfunction plan:

K008 through K011

These emissions units shall comply with the requirements specified in A.1.a through A.1.h of these terms and conditions.

- a. The permittee shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the emissions units during periods of startup, shutdown, and malfunction; a program of corrective action for malfunctioning processes; and air pollution control and monitoring equipment used to comply with the relevant standard.
- a. The permittee shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the emissions units during periods of startup, shutdown, and malfunction; a program of corrective action for malfunctioning processes; and air pollution control and monitoring equipment used to comply with the relevant standard.
- b. During periods of startup, shutdown, and malfunction, the permittee shall operate and maintain each emissions unit (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph 40 CFR Section 63.6(e)(3)(i).
- b. During periods of startup, shutdown, and malfunction, the permittee shall operate and maintain each emissions unit (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph 40 CFR Section 63.6(e)(3)(i).
- c. When actions taken by the permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the emissions units' startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of record keeping that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the permittee must keep records of these events as specified in 40 CFR Section 63.10(b), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the permittee shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the emissions units' startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in 40 CFR Section 63.10(d)(5).
- c. When actions taken by the permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the emissions units' startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of record keeping that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the permittee must keep records of these events as specified in 40 CFR Section 63.10(b), including records of the occurrence and duration of each

- startup, shutdown, or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the permittee shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the emissions units' startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in 40 CFR Section 63.10(d)(5).
- d. If an action taken by the permittee during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the emissions units' startup, shutdown, and malfunction plan, and the emissions unit(s) exceed(s) the relevant emission standard, then the permittee must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with 40 CFR Section 63.10(d)(5).
- d. If an action taken by the permittee during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the emissions units' startup, shutdown, and malfunction plan, and the emissions unit(s) exceed(s) the relevant emission standard, then the permittee must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with 40 CFR Section 63.10(d)(5).
- e. The permittee must maintain at the facility a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Hamilton County Department of Environmental Services. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph 40 CFR Section 63.6(e)(3)(viii), the permittee must maintain at the facility each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Hamilton County Department of Environmental Services for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the emissions unit(s) cease(s) operation or is (are) otherwise no longer subject to the provisions of this part, the permittee must retain a copy of the most recent plan for 5 years from the date the emissions unit(s) cease(s) operation or is (are) no longer subject to this part and must make the plan available upon request for inspection and copying by the Hamilton County Department of Environmental Services.
- e. The permittee must maintain at the facility a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Hamilton County Department of Environmental Services. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph 40 CFR Section 63.6(e)(3)(viii), the permittee must maintain at the facility each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Hamilton County Department of Environmental Services for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the emissions unit(s) cease(s) operation or is (are) otherwise no longer subject to the provisions of this part, the permittee must retain a copy of the most recent plan for 5 years from the date the emissions unit(s) cease(s) operation or is (are) no longer subject to this part and must make the plan available upon request for inspection and copying by the Hamilton County Department of Environmental Services.
- f. To satisfy the requirements of 40 CFR Section 63.6(e)(3) to develop a startup, shutdown, and malfunction plan, the permittee may use the emissions units' standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of 40 CFR Section 63.6(e)(3) and are made available for inspection when requested by the Hamilton County Department of Environmental Services.
- f. To satisfy the requirements of 40 CFR Section 63.6(e)(3) to develop a startup, shutdown, and malfunction plan, the permittee may use the emissions units' standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of 40 CFR Section 63.6(e)(3) and are made available for inspection when requested by the Hamilton County Department of Environmental Services.
- g. Based on the results of a determination made under 40 CFR Section 63.6(e)(2), the Director may require the permittee to make changes to the startup, shutdown, and malfunction plan for the emissions unit(s). The Director may require reasonable revisions to a startup, shutdown, and malfunction plan, if the Director finds that the plan:
- i. does not address a startup, shutdown, or malfunction event that has occurred;
  - ii. fails to provide for the operation of the emissions unit(s) (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by the relevant standards;
  - iii. does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or
  - iv. includes an event that does not meet the definition of startup, shutdown, or malfunction listed in 40 CFR Section 63.2.
- g. Based on the results of a determination made under 40 CFR Section 63.6(e)(2), the Director may require

the permittee to make changes to the startup, shutdown, and malfunction plan for the emissions unit(s). The Director may require reasonable revisions to a startup, shutdown, and malfunction plan, if the Director finds that the plan:

- i. does not address a startup, shutdown, or malfunction event that has occurred;
  - ii. fails to provide for the operation of the emissions unit(s) (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by the relevant standards;
  - iii. does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or
  - iv. includes an event that does not meet the definition of startup, shutdown, or malfunction listed in 40 CFR Section 63.2.
- h. The permittee may periodically revise the startup, shutdown, and malfunction plan for the affected emissions unit(s) as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected emissions unit(s). Unless the Hamilton County Department of Environmental Services provides otherwise, the permittee may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Director or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by 40 CFR Section 63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the permittee must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the emissions unit(s) during similar malfunction events and a program of corrective action for similar malfunctions of process(es) or air pollution control and monitoring equipment. In the event that the permittee makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the emissions unit(s) which are deemed to be a startup, shutdown, malfunction, or otherwise modifies the applicability of any emission limitation, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the permittee has provided a written notice describing the revision to the Hamilton County Department of Environmental Services.
- h. The permittee may periodically revise the startup, shutdown, and malfunction plan for the affected emissions unit(s) as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected emissions unit(s). Unless the Hamilton County Department of Environmental Services provides otherwise, the permittee may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Director or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by 40 CFR Section 63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the permittee must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the emissions unit(s) during similar malfunction events and a program of corrective action for similar malfunctions of process(es) or air pollution control and monitoring equipment. In the event that the permittee makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the emissions unit(s) which are deemed to be a startup, shutdown, malfunction, or otherwise modifies the applicability of any emission limitation, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the permittee has provided a written notice describing the revision to the Hamilton County Department of Environmental Services.

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Facility ID: 1483040077 Issuance type: Title V Draft Permit

**b State Only Enforceable Section**

1. The following insignificant emissions units are located at this facility:

P011 - distillation unit;  
 T006 - 5,000-gallon reclaimed solvent tank;  
 T007 - 5,000-gallon dirty solvent tank;  
 T008 - 5,000-gallon solvent tank;  
 T009 - 5,000-gallon solvent tank;  
 T010 - 5,000-gallon solvent tank;  
 T011 - 5,000-gallon solvent tank;  
 T012 - 2,640-gallon solvent tank;  
 T013 - 2,680-gallon solvent tank;  
 T014 - 12,000-gallon solvent tank;  
 T015 - 2,640-gallon varnish tank; and  
 T016 - 2,640-gallon varnish tank.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within a permit to install for the emissions unit.

The following insignificant emissions units are located at this facility:

P011 - distillation unit;  
 T006 - 5,000-gallon reclaimed solvent tank;

T007 - 5,000-gallon dirty solvent tank;  
T008 - 5,000-gallon solvent tank;  
T009 - 5,000-gallon solvent tank;  
T010 - 5,000-gallon solvent tank;  
T011 - 5,000-gallon solvent tank;  
T012 - 2,640-gallon solvent tank;  
T013 - 2,680-gallon solvent tank;  
T014 - 12,000-gallon solvent tank;  
T015 - 2,640-gallon varnish tank; and  
T016 - 2,640-gallon varnish tank.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within a permit to install for the emissions unit.

- [Go to Part III for Emissions Unit K008](#)
- [Go to Part III for Emissions Unit K009](#)
- [Go to Part III for Emissions Unit K010](#)
- [Go to Part III for Emissions Unit K011](#)
- [Go to Part III for Emissions Unit L001](#)
- [Go to Part III for Emissions Unit L003](#)
- [Go to Part III for Emissions Unit P012](#)
- [Go to Part III for Emissions Unit P013](#)

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Facility ID: 1483040077 Issuance type: Title V Draft Permit

**Part III - Terms and Conditions for Emissions Units**

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: K008 Issuance type: Title V Draft Permit

**A. State and Federally Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

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

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
2-station extruder/laminator controlled with a permanent total enclosure and a catalytic oxidizer.	40 CFR Part 63, Subpart KK  OAC rule 3745-31-05(A)(3) (PTI 14-05095)	The permittee shall operate a capture system and control device (catalytic oxidizer) with a minimum overall control efficiency of 95%, by weight, for the control of hazardous air pollutants (HAPs). 2.15 lbs of volatile organic compound (VOC) emissions/hour, from coatings  9.43 tons per year (TPY) of VOC emissions, from coatings  3.89 TPY of VOC emissions, from cleanup materials.  The requirements of this rule also include compliance with the applicable requirements of 40 CFR Part 63, Subpart KK.  See Sections A.1.2.a and A.1.2.b below.
	OAC rule 3745-21-09(Y)(1)(b)	The minimum overall control efficiency specified by this rule is less stringent than the minimum overall control efficiency established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- a. Pursuant to OAC rule 3745-31-05(A)(3) the best available technology determination for this emissions unit includes the operation of an emissions capture and control system capable of 100% capture of VOC emissions (permanent total enclosure) and 95%, by weight, overall control efficiency for VOC emissions, operation of an emissions capture and control system capable of 95%, by weight, overall control efficiency for HAP emissions, and compliance with the hourly and annual VOC emission limitations.
- b. The hourly and the annual VOC emission limitation for coatings (i.e., coatings, thinners and adhesives) are based upon the emissions unit's potential to emit while employing a catalytic oxidizer with a 95%, by weight, overall control efficiency for VOC emissions. Therefore, no additional monitoring, record keeping or reporting for the coatings is required to demonstrate compliance with these emission limitations.
- c. Pursuant to 40 CFR Section 63.828(b), any excursion(s) from the required operating parameters which are monitored in accordance with 40 CFR Section 63.828(a)(4) and (a)(5), unless otherwise excused, shall be considered a violation(s) of the emission standard.

The operating parameters established pursuant to 40 CFR Sections 63.828(a)(4) and (a)(5) are specified in Sections A.II.1 and A.II.4 of this permit.

- d. Pursuant to 40 CFR Section 63.823, the permittee shall comply with general provisions of 40 CFR Part 63, Subpart A, identified in Table 1 of 40 CFR Part 63, Subpart KK.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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## II. Operational Restrictions

1. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 10 degrees Celsius below the average temperature during the most recent emission tests that demonstrated the emissions unit was in compliance.
2. The average temperature difference across the catalyst bed at maximum operating capacity, for any 3-hour block of time when the emissions unit is in operation shall not be less than 80% of the average temperature difference during the most recent emission tests that demonstrated the emissions unit was in compliance.
3. The emissions unit shall be equipped with a permanent total enclosure (PTE)\* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:
  - a. any "Natural Draft Opening" (NDO)\* shall be at least 4 equivalent diameters from each VOC emission point;
  - b. the total area of all NDOs shall not exceed 5% of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water, and the direction of air through all NDOs shall be into the enclosure;
  - d. all access doors and windows whose areas are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and
  - e. all VOC emissions must be captured and vented to the VOC control devices.

By satisfying the above criteria for a PTE, the VOC capture efficiency shall be assumed to be 100%.

\* Definitions for PTE and NDO:

PTE: a permanently installed enclosure that completely surrounds a source of emissions such that all VOC emissions are captured and contained for discharge through a control device.

NDO: any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

4. The PTE shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever this emissions unit is in operation.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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## III. Monitoring and/or Record Keeping Requirements

1. The permittee operating each catalytic oxidizer used to control emissions from one or more product and packaging rotogravure or wide-web flexographic presses choosing to demonstrate compliance through performance tests of control device efficiency and continuing compliance through continuous monitoring of control device operating parameters, shall install, calibrate, operate and maintain a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of +/- 1 percent of the temperature being monitored in degrees Celsius or +/- 1 degree Celsius, whichever is greater. The thermocouple or temperature sensors shall be installed in the vent stream at the nearest feasible point to the catalyst inlet bed and downstream of the catalytic oxidizer's catalyst bed.
 

All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every three months; or the chart recorder data logger, or temperature indicator shall be replaced. The replacement shall be done either if the permittee chooses not to perform the calibration, or if the equipment cannot be calibrated properly.
2. The permittee shall collect and record the following information each day:
  - a. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 10 degrees Celsius below the average temperature of the exhaust gases during the most recent emission tests that demonstrated the emissions unit was in compliance;
  - b. all 3-hour blocks of time (when the emissions unit was in operation at maximum operating capacity) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference during the most recent emission tests that demonstrated the emissions unit was in compliance; and
  - c. a log of all downtime periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

3. The permittee shall maintain and operate monitoring device(s) and a recorder that simultaneously measures and records the differential pressure between the inside and outside of the PTE. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.  
  
The permittee shall maintain daily records, when this emissions unit is in operation, of all 3-hour blocks of time during which the PTE was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a 3-hour average.
4. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification of each cleanup material employed;
  - b. the number of gallons of each cleanup material evaporated;
  - c. the VOC content of each cleanup material employed, in pounds per gallon; and
  - d. the total VOC emissions from all cleanup materials employed, in pounds [summation of (b x c) for all cleanup materials employed during the calendar month, x (1 - the overall control efficiency of the capture and control system, as determined during the most recent emission tests that demonstrated that the emissions unit was in compliance)].
5. The permittee shall maintain records of the total VOC emissions, in tons, from all cleanup materials employed during the calendar year [summation of A.III.4.d for all months of the calendar year, and divided by 2,000 lbs/ton].
6. The permittee shall keep on-site and readily available the compliance status report required in 40 CFR Section 63.828(a)(5)(i).
7. The permittee shall maintain records documenting the overall organic HAP control efficiency as required in 40 CFR Section 63.825(d).

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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#### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. all exceedances of the catalytic oxidizer temperature restrictions specified in Sections A.II.1 and A.II.2; and
  - b. all periods of time during which the PTE was not maintained at the required differential pressure of 0.007 inch of water, as a 3-hour average.
2. The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.
3. The permittee shall submit annual reports that specify the total VOC emissions from all coatings and cleanup materials from this emissions unit, in tons, for the previous calendar year. The reports shall be submitted by January 31 of each year.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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#### V. Testing Requirements

1. Compliance with the VOC emission limitations specified in Section A.I.1 shall be determined by the following methods:
2. Emission Limitations:
  - 95%, by weight, overall control efficiency for VOC emissions
  - 95%, by weight, overall control efficiency for HAPs emissions
  - 2.15 lbs/hour of VOC emissions

Applicable Compliance Methods:

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

  - a. The emission testing shall be conducted within 6 months after issuance of this permit.  
  
Future emission testing shall be conducted at the frequency specified in Ohio EPA Engineering Guide #16 based on the results of the initial emission testing.
  - b. The emission testing shall be conducted to demonstrate compliance with the hourly VOC emission limitation, and the overall control efficiency for VOC and HAP emissions.
  - c. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.
  - d. The following test methods shall be employed to demonstrate compliance with the hourly VOC emission limitation and the minimum overall control efficiency:

VOC: Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A

The overall control system efficiency for VOCs, shall be the product of the capture efficiency and the destruction efficiency (control efficiency) of the catalytic oxidizer.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(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.

The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the U.S. EPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and the use of the alternative if such approval does not contravene any other applicable requirement.

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

Personnel from Ohio EPA and/or the Hamilton County Department of Environmental Services shall be permitted to witness the tests, 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 tests shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

4. Emission Limitations: 2.15 lbs/hour and 9.43 TPY of VOC emissions from coatings; 3.89 TPY of VOC emissions from cleanup materials

Applicable Compliance Methods: The hourly and annual VOC emission limitations for coatings are based upon the emissions unit's potential to emit. The hourly VOC emission limitation was established by the following methodology:

$[(\text{maximum gallons of coating employed/hour}) \times (\text{maximum VOC content of each coating}) \times (\text{maximum gallons of thinner employed/hour}) \times (\text{maximum VOC content of the thinner}) \times (\text{maximum gallons of adhesive employed/hour}) \times (\text{maximum VOC content of the adhesive}) \times (1 - \text{the overall control efficiency of the capture system and control device (0.95)})] = 2.15 \text{ lbs of VOC emissions/hour}$

where:

maximum amount of coating employed: 2.5 gallons/hour;  
 maximum amount of VOC content of the coating: 4.68 lbs of VOC/gallon ;  
 maximum amount of thinner employed: 2.5 gallons/hour;  
 maximum amount of VOC content of the thinner: 6.59 lbs of VOC/gallon;  
 maximum amount of adhesive employed: 3.67 gallons/hour; and  
 maximum amount of VOC content of the adhesive: 4.06 lbs of VOC/gallon.

Compliance with the hourly VOC emission limitation shall be based upon the results of emission testing conducted in accordance with the requirements specified in Section A.V.2.

The annual VOC emission limitation for coatings was established by multiplying the hourly VOC emission limitation for coatings (2.15 lbs of VOC emissions/hour) by 8,760 hours/year, and dividing by 2,000 lbs/ton. Therefore, compliance with the annual VOC emission limitation is ensured if compliance is maintained with the hourly VOC emission limitation.

Compliance with the annual VOC emission limitation for cleanup materials shall be determined by the record keeping requirements specified in Section A.III.5.

5. U.S. EPA Methods 24 and 24A shall be used to determine the VOC content for (a) coatings and (b) flexographic and rotogravure printing lines and related coatings, respectively. If, pursuant to Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the U.S. EPA and shall use formulation data for that coating or ink to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A. Formulation data or U.S. EPA Method 24 shall be used to determine the VOC content of all cleanup materials employed in this emissions unit.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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#### VI. Miscellaneous Requirements

1. None

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Facility ID: 1483040077 Issuance type: Title V Draft Permit

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: K008 Issuance type: Title V Draft Permit

**B. State Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

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

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
<b>2. Additional Terms and Conditions</b>		
1. None		

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**II. Operational Restrictions**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**III. Monitoring and/or Record Keeping Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**IV. Reporting Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**V. Testing Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**VI. Miscellaneous Requirements**

- 1. None

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Facility ID: 1483040077 Issuance type: Title V Draft Permit

**Part III - Terms and Conditions for Emissions Units**

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: K009 Issuance type: Title V Draft Permit

**A. State and Federally Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

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

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
10-station rotogravure printing press and dryers, controlled with a permanent total enclosure and a catalytic oxidizer.	40 CFR Part 63, Subpart KK	The permittee shall operate a capture system and control device (catalytic oxidizer) at a minimum overall control efficiency of 95%, by weight, for the control of hazardous air pollutants (HAPs).
	OAC rule 3745-31-05(A)(3) (PTI 14-03773)	29.3 lbs of volatile organic compound (VOC) emissions/hour, excluding cleanup materials
		The requirements of this rule also include compliance with the applicable requirements of 40 CFR Part 63, Subpart KK and OAC rule 3745-31-05(D).
		See Sections A.I.2.a and A.I.2.b below.
	OAC rule 3745-31-05(D) (PTI 14-03773)	39.45 tons of VOC emissions per rolling, 12-month period, including cleanup materials
	Synthetic Minor to avoid Non-Attainment Area review and Emission Offsets	See Section A.II.3 below.
	OAC rule 3745-21-09(Y)(1)(b)	The minimum overall control efficiency specified by this rule is less stringent than the minimum overall control efficiency established pursuant to OAC rule 3745-31-05(A)(3).

**2. Additional Terms and Conditions**

- a. Pursuant to OAC rule 3745-31-05(A)(3) the best available technology determination for this emissions unit includes the operation of an emissions capture and control system capable of 100% capture of VOC emissions (permanent total enclosure) and 95%, by weight, overall control efficiency for VOC emissions, operation of an emissions capture and control system capable of 95%, by weight, overall control efficiency for HAP emissions, and compliance with the material usage and VOC emission limitations.
- b. The hourly VOC emission limitation for coatings (i.e., ink, thinner, laminate and catalyst) is based upon the emissions unit's potential to emit, while employing a catalytic oxidizer with a 95%, by weight, overall control efficiency for VOC emissions. Therefore, no additional monitoring, record keeping or reporting is required to demonstrate compliance with this emission limitation.
- c. Pursuant to 40 CFR Section 63.828(b), any excursion(s) from the required operating parameters which are monitored in accordance with 40 CFR Section 63.828(a)(4) and (a)(5), unless otherwise excused, shall be considered a violation(s) of the emission standard.  
  
The operating parameters established pursuant to 40 CFR Section 63.828(a)(4) and (a)(5) are specified in Sections A.II.1 and A.II.4 of this permit.
- d. Pursuant to 40 CFR Section 63.823, the permittee shall comply with general provisions of 40 CFR Part 63, Subpart A, identified in Table 1 of 40 CFR Part 63, Subpart KK.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**II. Operational Restrictions**

- 1. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 10 degrees Celsius below the average temperature during the most recent emission tests that demonstrated the emissions unit was in compliance.
- 2. The average temperature difference across the catalyst bed at maximum operating capacity, for any 3-hour block of time when the emissions unit is in operation shall not be less than 80% of the average temperature difference during the most recent emission tests that demonstrated the emissions unit was in compliance.
- 3. The emissions unit shall be equipped with a permanent total enclosure (PTE)\* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:
  - a. any "Natural Draft Opening" (NDO)\* shall be at least 4 equivalent diameters from each OC emission point;

- b. the total area of all NDOs shall not exceed 5% of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water, and the direction of air through all NDOs shall be into the enclosure;
  - d. all access doors and windows whose areas are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and
  - e. all OC emissions must be captured and vented to the OC control devices.

By satisfying the above criteria for a PTE, the OC capture efficiency shall be assumed to be 100%.

\* Definitions for PTE and NDO:

PTE: a permanently installed enclosure that completely surrounds a source of emissions such that all OC emissions are captured and contained for discharge through a control device.

NDO: any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

- 4. The PTE shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever the emissions unit is in operation.
- 5. The maximum usage rates for this emissions unit shall not exceed 263,000 gallons of ink, 263,000 gallons of thinner, 526,000 gallons of coating, and 10,950 gallons of cleanup material, per rolling, 12-month period.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

**\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\***

### III. Monitoring and/or Record Keeping Requirements

- 1. The permittee operating each catalytic oxidizer used to control emissions from one or more product and packaging rotogravure or wide-web flexographic presses choosing to demonstrate compliance through performance tests of control device efficiency and continuing compliance through continuous monitoring of control device operating parameters, shall install, calibrate, operate and maintain a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of +/- 1 percent of the temperature being monitored in degrees Celsius or +/- 1 degree Celsius, whichever is greater. The thermocouple or temperature sensors shall be installed in the vent stream at the nearest feasible point to the catalyst inlet bed and downstream of the catalytic oxidizer's catalyst bed.
 

All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every three months; or the chart recorder data logger, or temperature indicator shall be replaced. The replacement shall be done either if the permittee chooses not to perform the calibration, or if the equipment cannot be calibrated properly.
- 2. The permittee shall collect and record the following information each day:
  - a. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 10 degrees Celsius below the average temperature of the exhaust gases during the most recent emission tests that demonstrated the emissions unit was in compliance;
  - b. all 3-hour blocks of time (when the emissions unit was in operation at maximum operating capacity) during which the average temperature difference across the catalyst bed was less than 80% of the average temperature difference during the most recent emission tests that demonstrated the emissions unit was in compliance; and
  - c. a log of all downtime periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
- 3. The permittee shall maintain and operate monitoring device(s) and a recorder that simultaneously measures and records the differential pressure between the inside and outside of the PTE. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
 

The permittee shall maintain daily records, when this emissions unit is in operation, of all 3-hour blocks of time during which the PTE was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a 3-hour average.
- 4. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the company identification for each ink, thinner, coating and cleanup material employed;
  - b. the number of gallons of each ink, thinner, coating, and cleanup material employed;
  - c. the VOC content of each ink, thinner, coating, and cleanup material, in pounds per gallon, as applied;
  - d. the rolling, 12-month summations of the ink, thinner, coating, and cleanup material usage figures;
  - e. the total VOC emissions from all inks, thinners, coatings and cleanup materials employed, in pounds [summation of (b x c) for all inks, thinners, coatings and cleanup materials employed during the calendar month, x (1 - the overall control efficiency of the capture system and control device, as determined during the most recent emission tests that demonstrated that the emissions unit was in compliance)]; and

- f. the rolling, 12-month summation of VOC emissions, in tons [the total VOC emissions for the current month, plus the total VOC emissions for the previous 11 calendar months, and divided by 2,000 lbs/ton].
5. The permittee shall keep on-site and readily available the compliance status report required in 40 CFR Section 63.828(a)(5)(i).
  6. The permittee shall maintain records documenting the overall organic HAP efficiency as required in 40 CFR Section 63.825(d).

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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#### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. all exceedances of the rolling, 12-month usage limitations for inks, thinners, coatings and cleanup materials;
  - b. all exceedances of the rolling, 12-month VOC emission limitation;
  - c. all exceedances of the catalytic oxidizer temperature restrictions specified in Sections A.II.1 and A.II.2; and
  - d. all periods of time during which the PTE was not maintained at the required differential pressure of 0.007 inch of water, as a 3-hour average.
2. The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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#### V. Testing Requirements

1. Compliance with the emission limitations and material usage restrictions specified in Sections A.I.1, A.I.2.a, and A.II.2 shall be determined in accordance with the following methods:
2. Emission Limitations:
 

95%, by weight, overall control efficiency for VOC emissions  
 95%, by weight, overall control efficiency for HAPs emissions  
 29.3 lbs/hour of VOC emissions

Applicable Compliance Methods:

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

  - a. The emission testing shall be conducted within 6 months after issuance of this permit.

Future emission testing shall be conducted at the frequency specified in Ohio EPA Engineering Guide #16 based on the results of the initial emission testing.

  - b. The emission testing shall be conducted to demonstrate compliance with the hourly VOC emission limitation, and the overall control efficiency for VOC and HAP emissions.
  - c. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.
  - d. The following test methods shall be employed to demonstrate compliance with the hourly VOC emission limitation and the minimum overall control efficiency:

VOC: Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A

The overall control system efficiency for VOCs, shall be the product of the capture efficiency and the destruction efficiency (control efficiency) of the catalytic oxidizer.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(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.

The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the U.S. EPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and the use of the alternative if such approval does not contravene any other applicable requirement.
3. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the tests, and the person(s) who will be conducting the tests. Failure

to submit such notification for review and approval prior to the tests may result in the Hamilton County Department of Environmental Services' refusal to accept the results of the emission tests.

Personnel from Ohio EPA and/or the Hamilton County Department of Environmental Services shall be permitted to witness the tests, 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 tests shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

- 4. Emission Limitations: 29.3 lbs/hour of VOC emissions; 39.45 tons of VOC emissions peer rolling, 12-month period

Applicable Compliance Methods: The hourly VOC emissions limitation is based upon the emissions unit's potential to emit and was established by using the following methodology:

$[(\text{maximum gallons of ink and thinner employed/hour}) \times (\text{maximum VOC content of each ink and thinner (combined)}) \times (\text{maximum gallons of laminate employed/hour}) \times (\text{maximum VOC content of the laminate}) \times (\text{maximum gallons of catalyst employed/hour}) \times (\text{maximum VOC content of the catalyst}) \times (1 - \text{the overall control efficiency of the capture system and control device (0.95)})] = 29.3 \text{ lbs of VOC emissions/hour}$

where:

maximum amount of ink and thinner employed: 72 gallons/hour;  
 maximum VOC content of the ink and thinner (combined): 6.88 lbs of VOC/gallon;  
 maximum amount of laminate employed: 18 gallons/hour;  
 maximum VOC content of the laminate: 4.06 lbs of VOC/gallon;  
 maximum amount of catalyst employed: 2.0 gallons/hour; and  
 maximum VOC content of the catalyst: 8.58 lbs of VOC/gallon.

Compliance with the hourly VOC emission limitation shall be based upon the results of emission testing conducted in accordance with the requirements specified in Section A.V.2.

Compliance with the rolling, 12-month VOC emission limitation shall be determined by the record keeping requirements specified in Section A.III.5.

- 5. Material Usage Restrictions: The maximum annual usage rates for this emissions unit shall not exceed 263,000 gallons of ink, 263,000 gallons of thinner, 526,000 gallons of coating, and 10,950 gallons of cleanup material, based upon a rolling, 12-month period summation.

Applicable Compliance Method: Compliance with the material usage restrictions shall be determined by the record keeping requirements specified in Section A.III.5.

- 6. U.S. EPA Methods 24 and 24A shall be used to determine the VOC content for (a) coatings and (b) flexographic and rotogravure printing lines and related coatings, respectively. If, pursuant to Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the U.S. EPA and shall use formulation data for that coating or ink to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A. Formulation data or U.S. EPA Method 24 shall be used to determine the VOC content of all cleanup materials employed in this emissions unit.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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VI. Miscellaneous Requirements

- 1. None

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Facility ID: 1483040077 Issuance type: Title V Draft Permit

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: K009 Issuance type: Title V Draft Permit

B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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2. **Additional Terms and Conditions**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

II. **Operational Restrictions**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

III. **Monitoring and/or Record Keeping Requirements**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

IV. **Reporting Requirements**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

V. **Testing Requirements**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

VI. **Miscellaneous Requirements**

1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1483040077 Issuance type: Title V Draft Permit

Part III - Terms and Conditions for Emissions Units

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: K010 Issuance type: Title V Draft Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

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

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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2-station extruder/laminator controlled with a 40 CFR Part 63, Subpart KK permanent total enclosure and a catalytic oxidizer.

The permittee shall operate a capture system and control device (catalytic oxidizer) at a minimum overall control efficiency of 95%, by weight, for the control of hazardous air pollutants (HAPs).

OAC rule 3745-31-05(A)(3) (PTI 14-05095)	2.15 lbs of volatile organic compound (VOC) emissions/hour, from coatings  9.43 tons per year (TPY) of VOC emissions, from coatings  3.89 TPY of VOC emissions, from cleanup materials  The requirements of this rule also include compliance with the applicable requirements of 40 CFR Part 63, Subpart KK.  See Sections A.2.a and A.2.b below.
OAC rule 3745-21-09(Y)(1)(b)	The minimum overall control efficiency specified by this rule is less stringent than the minimum overall control efficiency established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

- a. Pursuant to OAC rule 3745-31-05(A)(3) the best available technology determination for this emissions unit includes the operation of an emissions capture and control system capable of 100% capture of VOC emissions (permanent total enclosure) and 95%, by weight, overall control efficiency for VOC emissions, operation of an emissions capture system and control device capable of 95%, by weight, overall control efficiency for HAP emissions, and compliance with the hourly and annual VOC emission limitations.
- b. The hourly and the annual VOC emission limitation for coatings (i.e., coatings, thinners and adhesives) are based upon the emissions unit's potential to emit while employing a catalytic oxidizer with a 95%, by weight, overall control efficiency for VOC emissions. Therefore, no additional monitoring, record keeping or reporting for the coatings is required to demonstrate compliance with these emission limitations.
- c. Pursuant to 40 CFR Section 63.828(b), any excursion(s) from the required operating parameters which are monitored in accordance with 40 CFR Sections 63.828(a)(4) and (a)(5), unless otherwise excused, shall be considered a violation(s) of the emission standard.  
  
The operating parameters established pursuant to 40 CFR Sections 63.828(a)(4) and (a)(5) are specified in Sections A.II.1 and A.II.4 of this permit.
- d. Pursuant to 40 CFR Section 63.823, the permittee shall comply with general provisions of 40 CFR Part 63, Subpart A, identified in Table 1 of 40 CFR Part 63, Subpart KK.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

II. **Operational Restrictions**

1. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 10 degrees Celsius below the average temperature during the most recent emission tests that demonstrated the emissions unit was in compliance.
2. The average temperature difference across the catalyst bed at maximum operating capacity, for any 3-hour block of time when the emissions unit is in operation shall not be less than 80% of the average temperature difference during the most recent emission tests that demonstrated the emissions unit was in compliance.
3. The emissions unit shall be equipped with a permanent total enclosure (PTE)\* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:
  - a. any "Natural Draft Opening" (NDO)\* shall be at least 4 equivalent diameters from each OC emission point;
  - b. the total area of all NDOs shall not exceed 5% of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water, and the direction of air through all NDOs shall be into the enclosure;
  - d. all access doors and windows whose areas are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and
  - e. all OC emissions must be captured and vented to the OC control devices.

By satisfying the above criteria for a PTE, the OC capture efficiency shall be assumed to be 100%.

\* Definitions for PTE and NDO:

PTE: a permanently installed enclosure that completely surrounds a source of emissions such that all OC emissions are captured and contained for discharge through a control device.

NDO: any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

4. The PTE shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever the emissions unit is in operation.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

**\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\***

### III. Monitoring and/or Record Keeping Requirements

1. The permittee operating each catalytic oxidizer used to control emissions from one or more product and packaging rotogravure or wide-web flexographic presses choosing to demonstrate compliance through performance tests of control device efficiency and continuing compliance through continuous monitoring of control device operating parameters, shall install, calibrate, operate and maintain a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of +/- 1 percent of the temperature being monitored in degrees Celsius or +/- 1 degree Celsius, whichever is greater. The thermocouple or temperature sensors shall be installed in the vent stream at the nearest feasible point to the catalyst inlet bed and downstream of the catalytic oxidizer's catalyst bed.

All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every three months; or the chart recorder data logger, or temperature indicator shall be replaced. The replacement shall be done either if the permittee chooses not to perform the calibration, or if the equipment cannot be calibrated properly.

2. The permittee shall collect and record the following information each day:
  - a. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 10 degrees Celsius below the average temperature of the exhaust gases during the most recent emission tests that demonstrated the emissions unit was in compliance;
  - b. all 3-hour blocks of time (when the emissions unit was in operation at maximum operating capacity) during which the average temperature difference across the catalyst bed was less than 80% of the average temperature difference during the most recent emission tests that demonstrated the emissions unit was in compliance; and
  - c. a log of all downtime periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
3. The permittee shall maintain and operate monitoring device(s) and a recorder that simultaneously measures and records the differential pressure between the inside and outside of the PTE. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall maintain daily records, when this emissions unit is in operation, of all 3-hour blocks of time during which the PTE was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a 3-hour average.

4. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification of each cleanup material employed;
  - b. the number of gallons of each cleanup material evaporated;
  - c. the VOC content of each cleanup material employed, in pounds per gallon; and
  - d. the total VOC emissions from all cleanup materials employed, in pounds [summation of (b x c) for all cleanup materials employed during the calendar month, x (1 - the overall control efficiency of the capture system and control device, as determined during the most recent emission tests that demonstrated that the emissions unit was in compliance)].
5. The permittee shall maintain records of the total VOC emissions, in tons, from all cleanup materials employed during the calendar year [summation of A.III.4.d for all months of the calendar year, and divided by 2,000 lbs/ton].
6. The permittee shall keep on-site and readily available the compliance status report required in 40 CFR Section 63.828(a)(5)(i).
7. The permittee shall maintain records documenting the overall organic HAP control efficiency as required in 40 CFR Section 63.825(d).

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

**\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\***

### IV. Reporting Requirements

1. Within 30 days after start of construction, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to 40 CFR Part 63, Subpart KK. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report:
  - a. the name and mailing address of the permittee;
  - b. the physical location of the source if it is different from the mailing address;

- c. identification of the relevant Maximum Achievable Control Technology (MACT) standard and the permittee's compliance date;
  - d. a brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each HAP;
  - e. a statement of whether or not the permittee is a major source or an area source according to the promulgated MACT; and
  - f. the date of the start of construction.
2. Within 60 days following completion of the required compliance determination activity specified in the 40 CFR Part 63, Subpart KK, the permittee shall submit a notification of compliance status that contains the following information:
- a. the methods used to determine compliance;
  - b. the results of any performance tests, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;
  - c. the methods that will be used for determining compliance, including a description of the monitoring and reporting requirements and test methods;
  - d. the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR Part 63, Subpart KK;
  - e. an analysis demonstrating whether the affected source is a major source or an area source;
  - f. a description of the air pollution control equipment or method of each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and
  - g. a statement as to whether or not the permittee has complied with the requirements of 40 CFR Part 63, Subpart KK.
3. The permittee is complying with the requirements of 40 CFR Sections 63.824 and 63.825 through the use of a control device and demonstrating continuous compliance by monitoring an operating parameter. To ensure that the capture efficiency measured during the initial compliance test is maintained, the permittee shall:
- a. Submit to the Administrator with the compliance status report required by 40 CFR Section 63.9(h) of the General Provisions, a plan that:
    - i. identifies the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained;
    - ii. discusses why this parameter is appropriate for demonstrating ongoing compliance; and
    - iii. identifies the specific monitoring procedures.
  - b. Set the operating parameter value, or range of values, that demonstrate compliance with 40 CFR Sections 63.824 and 63.825; and
  - c. Conduct monitoring in accordance with the plan submitted to the Administrator unless comments received from the Administrator require an alternate monitoring scheme.
4. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
- a. all exceedances of the catalytic oxidizer temperature restrictions specified Sections in A.II.1 and A.II.2; and
  - b. identify all periods of time during which the PTE was not maintained at the required differential pressure of 0.007 inch of water, as a 3-hour average.
5. The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.
6. The permittee shall submit annual reports that specify the total VOC emissions from all coatings and from all cleanup materials from this emissions unit, in tons, for the previous calendar year. The reports shall be submitted by January 31 of each year.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**V. Testing Requirements**

- 1. Compliance with the emission limitations specified in Sections A.1.1 and A.1.2.a shall be determined in accordance with the following methods:
- 2. Emission Limitations:
  - 95%, by weight, overall control efficiency for VOC emissions
  - 95%, by weight, overall control efficiency for HAPs emissions
  - 2.15 lbs/hr of VOC emissions

## Applicable Compliance Method:

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

- a. The emission testing shall be conducted within 6 months after issuance of this permit.

Future emission testing shall be conducted at the frequency specified in Ohio EPA Engineering Guide #16 based on the results of the initial emission testing.

- b. The emission testing shall be conducted to demonstrate compliance with the hourly VOC emission limitation, and the overall control efficiency for VOC and HAP emissions.

- c. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

- d. The following test methods shall be employed to demonstrate compliance with the hourly VOC emission limitation and the minimum overall control efficiency:

VOC: Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A

The overall control system efficiency for VOCs, shall be the product of the capture efficiency and the destruction efficiency (control efficiency) of the catalytic oxidizer.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(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.

The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the U.S. EPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and the use of the alternative if such approval does not contravene any other applicable requirement.

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

Personnel from Ohio EPA and/or the Hamilton County Department of Environmental Services shall be permitted to witness the tests, 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 tests shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

4. Emission Limitations: 2.15 lbs/hour and 9.43 TPY of VOC emissions from coatings; 3.89 TPY of VOC emissions from cleanup materials

Applicable Compliance Methods: The hourly and annual VOC emission limitations for coatings are based upon the emissions unit's potential to emit. The hourly VOC emission limitation was established by the following methodology:

$$[(\text{maximum gallons of coating employed/hour}) \times (\text{maximum VOC content of each coating}) \times (\text{maximum gallons of thinner employed/hour}) \times (\text{maximum VOC content of the thinner}) \times (\text{maximum gallons of adhesive employed/hour}) \times (\text{maximum VOC content of the adhesive}) \times (1 - \text{the overall fractional control efficiency of the catalytic oxidizer } (0.95))] = 2.15 \text{ lbs of VOC emissions/hour}$$

where:

maximum coating employed: 2.5 gallons/hour;  
 maximum VOC content of the coating: 4.68 lbs of VOC/gallon;  
 maximum thinner employed: 2.5 gallons/hour;  
 maximum VOC content of the thinner: 6.59 lbs of VOC/gallon;  
 maximum adhesive employed: 3.67 gallons/hour; and  
 maximum VOC content of the adhesive: 4.06 lbs of VOC/gallon.

Compliance with the hourly VOC emission limitation shall be based upon the results of emissions testing conducted in accordance with the requirements specified in Section A.V.2.

The annual VOC emission limitation for coatings was established by multiplying the hourly VOC emission limitation for coatings (2.15 lbs of VOC emissions/hour) by 8,760 hours/year, and dividing by 2,000 lbs/ton. Therefore, compliance with the annual VOC emission limitation is ensured if compliance is maintained with the hourly VOC emission limitation.

Compliance with the annual VOC emission limitation for cleanup materials shall be determined by the record keeping requirements specified in Section A.III.4.

5. U.S. EPA Methods 24 and 24A shall be used to determine the VOC content for (a) coatings and (b) flexographic and rotogravure printing lines and related coatings, respectively. If, pursuant to Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the U.S. EPA and shall use formulation data for that coating or ink to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A. Formulation data or U.S. EPA Method 24 shall be used to determine the VOC content of all cleanup materials employed in this emissions unit.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**VI. Miscellaneous Requirements**

1. The startup of emissions units K010 and K011 shall be concurrent with the complete and permanent shutdown of emissions units K001, K006 and K007 at this facility.

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**Facility ID: 1483040077 Issuance type: Title V Draft Permit**

[Go to the top of this document](#)

**Facility ID: 1483040077 Emissions Unit ID: K010 Issuance type: Title V Draft Permit**

**B. State Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

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

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
2. <b>Additional Terms and Conditions</b>			
1.	None		

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

**II. Operational Restrictions**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

**III. Monitoring and/or Record Keeping Requirements**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

**IV. Reporting Requirements**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

**V. Testing Requirements**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

VI. **Miscellaneous Requirements**

1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1483040077 Issuance type: Title V Draft Permit

Part III - Terms and Conditions for Emissions Units

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: K011 Issuance type: Title V Draft Permit

A. **State and Federally Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

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

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
11-station rotogravure press and laminator controlled with a permanent total enclosure and a catalytic oxidizer	40 CFR Part 63, Subpart KK	The permittee shall operate a capture system and control device (catalytic oxidizer) at a minimum overall control efficiency of 95%, by weight, for the control of hazardous air pollutants (HAPs).
	OAC rule 3745-31-05(A)(3) (PTI 14-05095)	28.2 lbs of volatile organic compound (VOC) emissions/hour, from coatings, thinners and inks
		The requirements of this rule also include compliance with the applicable requirements of 40 CFR Part 63, Subpart KK and OAC rule 3745-31-05(D).
		See Sections A.I.2.a and A.I.2.b below.
	OAC rule 3745-31-05(D) (PTI 14-05095)	45.0 tons of VOC emissions, per rolling, 12-month period, including cleanup materials
	Synthetic Minor to avoid Prevention of Significant Deterioration	See Section A.II.3 below.
	OAC rule 3745-31-05(D) (PTI 14-05095)	See Section A.VI.1 below.
	Netting to avoid Prevention of Significant Deterioration	
	OAC rule 3745-21-09(Y)(1)(b)	The minimum overall control efficiency specified by this rule is less stringent than the minimum overall control efficiency established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**

- a. Pursuant to OAC rule 3745-31-05(A)(3) the best available technology determination for this emissions unit includes the operation of an emissions capture and control system capable of 100% capture of VOC emissions (permanent total enclosure) and 95%, by weight, overall control efficiency for VOC emissions, operation of an emissions capture and control system capable of 95%, by weight, overall control efficiency for HAP emissions, and compliance with the usage and emission limitations.
- b. The hourly VOC emission limitation is based upon the emissions unit's potential to emit, from coatings, thinners and inks only, while employing a catalytic oxidizer with a 95%, by weight, overall control efficiency for VOC emissions. Therefore, no additional monitoring, record keeping or reporting is required to demonstrate compliance with this emission limitation.
- c. Pursuant to 40 CFR 63.828(b), any excursion(s) from the required operating parameters which are monitored in accordance with 40 CFR Sections 63.828(a)(4) and (a)(5), unless otherwise excused, shall be considered a violation(s) of the emission standard.

The operating parameters established pursuant to 40 CFR Sections 63.828(a)(4) and (a)(5) are specified in sections A.II.1 and A.II.4 of this permit.

- d. Pursuant to 40 CFR Section 63.823, the permittee shall comply with general provisions of 40 CFR Part 63, Subpart A, identified in Table 1 of 40 CFR Part 63, Subpart KK.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

**II. Operational Restrictions**

1. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 10 degrees Celsius below the average temperature during the most recent emission tests that demonstrated the emissions unit was in compliance.
2. The average temperature difference across the catalyst bed at maximum operating capacity, for any 3-hour block of time when the emissions unit is in operation shall not be less than 80% of the average temperature difference during the most recent emission tests that demonstrated the emissions unit was in compliance.
3. The emissions unit shall be equipped with a permanent total enclosure (PTE)\* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:
  - a. any "Natural Draft Opening" (NDO)\* shall be at least 4 equivalent diameters from each OC emission point;
  - b. the total area of all NDOs shall not exceed 5% of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water, and the direction of air through all NDOs shall be into the enclosure;
  - d. all access doors and windows whose areas are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and
  - e. all OC emissions must be captured and vented to the OC control devices.

By satisfying the above criteria for a PTE, the OC capture efficiency shall be assumed to be 100%.

\* Definitions for PTE and NDO:

PTE: a permanently installed enclosure that completely surrounds a source of emissions such that all OC emissions are captured and contained for discharge through a control device.

NDO: any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

4. The PTE shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever the emissions unit is in operation.
5. The maximum annual usage rates for this emissions unit shall not exceed 300,000 gallons of ink, 300,000 gallons of thinner, 600,000 gallons of coating, and 10,800 gallons of cleanup material, per rolling, 12-month period.

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the cumulative usage levels (in gallons) specified in the following table:

Month Ink Thinner Coating Cleanup Material

1	25,000	25,000	50,000	900
1-2	50,000	50,000	100,000	1,800
1-3	75,000	75,000	150,000	2,700
1-4	100,000	100,000	200,000	3,600
1-5	125,000	125,000	250,000	4,500
1-6	150,000	150,000	300,000	5,400
1-7	175,000	175,000	350,000	6,300
1-8	200,000	200,000	400,000	7,200
1-9	225,000	225,000	450,000	8,100
1-10	250,000	250,000	500,000	9,000
1-11	275,000	275,000	550,000	9,900
1-12	300,000	300,000	600,000	10,800

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

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee operating each catalytic oxidizer used to control emissions from one or more product and packaging rotogravure or wide-web flexographic presses choosing to demonstrate compliance through performance tests of control device efficiency and continuing compliance through continuous monitoring of control device operating parameters, shall install, calibrate, operate and maintain a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an

accuracy of +/- 1 percent of the temperature being monitored in degrees Celsius or +/- 1 degree Celsius, whichever is greater. The thermocouple or temperature sensors shall be installed in the vent stream at the nearest feasible point to the catalyst inlet bed and downstream of the catalytic oxidizer's catalyst bed.

All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every three months; or the chart recorder data logger, or temperature indicator shall be replaced. The replacement shall be done either if the permittee chooses not to perform the calibration, or if the equipment cannot be calibrated properly.

2. The permittee shall collect and record the following information each day:
  - a. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 10 degrees Celsius below the average temperature of the exhaust gases during the most recent emission tests that demonstrated the emissions unit was in compliance;
  - b. all 3-hour blocks of time (when the emissions unit was in operation at maximum operating capacity) during which the average temperature difference across the catalyst bed was less than 80% of the average temperature difference during the most recent emission tests that demonstrated the emissions unit was in compliance; and
  - c. a log of all downtime periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
3. The permittee shall maintain and operate monitoring device(s) and a recorder that simultaneously measure and record the differential pressure between the inside and outside of the PTE. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
 

The permittee shall maintain records of all 3-hour blocks of time during which the PTE was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a 3-hour average.
4. The permittee shall collect and record the following information each month for this emissions unit:
  - a. the company identification for each ink, thinner, coating and cleanup material employed;
  - b. the number of gallons of each ink, thinner, coating, and cleanup material employed, as applied;
  - c. the VOC content of each ink, thinner, coating, and cleanup material, in pounds per gallon, as applied;
  - d. for the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative usages of inks, thinners, coatings, and cleanup materials for each calendar month, in gallons;
  - e. beginning after the first 12 calendar months of operation following the issuance of this permit, the permittee shall collect and record the rolling, 12-month summations of the ink, thinner, coating, and cleanup material usage figures, in gallons; and
  - f. the rolling, 12-month summation VOC emission rate for all inks, thinners, coatings and cleanup materials, in tons [summation of (b x c) for all inks, thinners, coatings and cleanup materials employed during the calendar month, x (1 - the overall control efficiency of the capture system and control device, as determined during the most recent emission tests that demonstrated that the emissions unit was in compliance) x 1 ton/2,000 lbs].
5. The permittee shall keep on-site and readily available the compliance status report required in 40 CFR Section 63.828(a)(5)(i).
6. The permittee shall maintain records documenting the overall organic HAP efficiency as required in 40 CFR Section 63.825(d).

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

#### IV. Reporting Requirements

1. Within 30 days after start of construction, the permittee shall submit an Initial Notification Report which certifies whether or not the permittee is subject to 40 CFR Part 63, Subpart KK. If the permittee is subject to the final standard, the following information shall also be included in the Initial Notification Report:
  - a. the name and mailing address of the permittee;
  - b. the physical location of the source if it is different from the mailing address;
  - c. identification of the relevant Maximum Achievable Control Technology (MACT) standard and the permittee's compliance date;
  - d. a brief description of the nature, design, size, and method of operation of the source, including the operating design capacity and an identification of each emission point of each HAP;
  - e. a statement of whether or not the permittee is a major source or an area source according to the promulgated MACT; and
  - f. the date of the start of construction.

2. Within 60 days following completion of the required compliance determination activity specified in the 40 CFR Part 63, Subpart KK, the permittee shall submit a notification of compliance status that contains the following information:
  - a. the methods used to determine compliance;
  - b. the results of any performance tests, opacity or visible emission observations, continuous monitoring systems (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;
  - c. the methods that will be used for determining compliance, including a description of the monitoring and reporting requirements and test methods;
  - d. the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in 40 CFR Part 63, Subpart KK;
  - e. an analysis demonstrating whether the affected source is a major source or an area source;
  - f. a description of the air pollution control equipment or method of each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and
  - g. a statement as to whether or not the permittee has complied with the requirements of 40 CFR Part 63, Subpart KK.
3. The permittee is complying with the requirements of 40 CFR Sections 63.824 and 63.825 through the use of a control device and demonstrating continuous compliance by monitoring an operating parameter. To ensure that the capture efficiency measured during the initial compliance test is maintained, the permittee shall:
  - a. Submit to the Administrator with the compliance status report required by 40 CFR Section 63.9(h) of the General Provisions, a plan that:
    - i. identifies the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained;
    - ii. discusses why this parameter is appropriate for demonstrating ongoing compliance; and
    - iii. identifies the specific monitoring procedures.
  - b. Set the operating parameter value, or range of values, that demonstrate compliance with 40 CFR Sections 63.824-63.825.
  - c. Conduct monitoring in accordance with the plan submitted to the Administrator unless comments received from the Administrator require an alternate monitoring scheme.
4. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the following:
  - a. each exceedance of the catalytic oxidizer temperature restrictions specified in Sections A.II.1 and A.II.2;
  - b. all periods of time during which the PTE was not maintained at the required differential pressure of 0.007 inch of water, as a 3-hour average;
  - c. all exceedances of the rolling, 12-month VOC emission limitation;
  - d. all exceedances of the cumulative usage levels for all inks, thinners, coatings and cleanup materials during the first 12 months of operation, as specified in Section A.II.2; and
  - e. after the first 12 months of operation, all exceedances of the rolling, 12-month material usage restrictions for inks, thinners, coatings and cleanup materials, as specified in Section A.II.2.
5. The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

**V. Testing Requirements**

1. Compliance with the emission limitations and material usage restrictions specified in Sections A.I.1, A.I.2.a and A.II.5 shall be determined in accordance with the following methods:
2. Emission Limitations:
 

95%, by weight, overall control efficiency for VOC emissions  
 95%, by weight, overall control efficiency for HAPs emissions  
 28.2 lbs/hour of VOC emissions

Applicable Compliance Method:

  - a. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - b. The emission testing shall be conducted within 6 months after issuance of this permit.

Future emission testing shall be conducted at the frequency specified in Ohio EPA Engineering Guide #16 based on the results of the initial emission testing.

- c. The emission testing shall be conducted to demonstrate compliance with the hourly VOC emission limitation, and the overall control efficiency for VOC and HAP emissions.
- d. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.
- e. The following test methods shall be employed to demonstrate compliance with the hourly VOC emission limitation and the minimum overall control efficiency:

VOC: Methods 1 through 4 and 25 of 40 CFR Part 60, Appendix A

The overall control system efficiency for VOCs, shall be the product of the capture efficiency and the destruction efficiency (control efficiency) of the catalytic oxidizer.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(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.

The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the U.S. EPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and the use of the alternative if such approval does not contravene any other applicable requirement.

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

Personnel from Ohio EPA and/or the Hamilton County Department of Environmental Services shall be permitted to witness the tests, 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 tests shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

- 4. Emission Limitations: 28.2 lbs/hour and 45.0 tons of VOC emissions per rolling, 12-month period

Applicable Compliance Methods: The hourly VOC emission limitation is based upon the emissions unit's potential to emit and was established by the following methodology:

$$[(\text{maximum gallons of ink employed/hour}) \times (\text{maximum VOC content of each ink}) \times (\text{maximum gallons of thinner employed/hour}) \times (\text{maximum VOC content of the thinner}) \times (\text{maximum gallons of coating employed/hour}) \times (\text{maximum VOC content of the coating}) \times (1 - \text{the overall fractional control efficiency of the catalytic oxidizer } (0.95))] = 28.2 \text{ lbs of VOC emissions/hour}$$

where:

maximum coating employed: 18 gallons/hour;  
 maximum VOC content of the coating: 3.82 lbs of VOC/gallon;  
 maximum thinner employed: 36 gallons/hour;  
 maximum VOC content of the thinner: 7.51 lbs of VOC/gallon;  
 maximum ink employed: 36 gallons/hour; and  
 maximum VOC content of the ink: 6.24 lbs of VOC/gallon.

Compliance with the hourly VOC emission limitation shall be based upon the results of emission testing conducted in accordance with the requirements specified in Section A.V.2.

Compliance with the annual VOC emission limitation shall be determined by the record keeping requirements specified in Section A.III.4.

- 5. Material Usage Restrictions: 300,000 gallons of ink; 300,000 gallons of thinner; 600,000 gallons of coating; 10,800 gallons of cleanup material, per rolling, 12-month period

Applicable Compliance Method: Compliance with the material usage restrictions shall be determined by the record keeping requirements specified in Section A.III.4.

- 6. U.S. EPA Methods 24 and 24A shall be used to determine the VOC content for (a) coatings and (b) flexographic and rotogravure printing lines and related coatings, respectively. If, pursuant to Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the U.S. EPA and shall use formulation data for that coating or ink to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A. Formulation data or U.S. EPA Method 24 shall be used to determine the VOC content of all cleanup materials employed in this emissions unit.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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VI. **Miscellaneous Requirements**

1. The following is a summary of the netting emissions in TPY:

Emissions Unit Pollutant Decrease Increase

K001 VOC -6.0\*  
K006 VOC -11.2\*  
K007 VOC -2.75\*  
K010 VOC +13.32  
K011 VOC +45.0

Net Emissions Change VOC +38.37

\* Based on average actual emissions for 1997 and 1998.

2. The startup of emissions units K010 and K011 shall be concurrent with the complete and permanent shutdown of emissions units K001, K006 and K007 at this facility.

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Facility ID: 1483040077 Issuance type: Title V Draft Permit

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: K011 Issuance type: Title V Draft Permit

**B. State Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

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

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
2. <b>Additional Terms and Conditions</b>			
1.	None		

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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II. **Operational Restrictions**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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III. **Monitoring and/or Record Keeping Requirements**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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IV. **Reporting Requirements**

1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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V. **Testing Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

VI. **Miscellaneous Requirements**

- 1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1483040077 Issuance type: Title V Draft Permit

**Part III - Terms and Conditions for Emissions Units**

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: L001 Issuance type: Title V Draft Permit

**A. State and Federally Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

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

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
non-halogenated cold solvent parts washer controlled with a permanent total enclosure and a catalytic oxidizer	OAC rule 3745-31-05(A)(3) (PTI 14-05095)	2.7 lbs of volatile organic compound (VOC) emissions/day  0.50 ton per year (TPY) of VOC emissions  The requirements of this rule also include compliance the requirements of OAC rule 3745-21-09(O)(2).  See Section A.I.2 below. See Section A.II.1 below.
	OAC rule 3745-21-09(O)(2)	

2. **Additional Terms and Conditions**

- a. Pursuant to OAC rule 3745-31-05(A)(3), the best available technology determination for this emissions unit includes the operation of an emissions capture system and control device capable of 100% capture of VOC emissions (permanent total enclosure) and 95%, by weight, overall control efficiency for VOC emissions and compliance with the daily and annual VOC emission limitations.
- b. The daily and annual VOC emission limitations are based upon the emissions unit's potential to emit, while employing a catalytic oxidizer with a 95%, by weight, overall control efficiency for VOC emissions. Therefore, no additional monitoring, record keeping or reporting is required to demonstrate compliance with these emission limitations.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

II. **Operational Restrictions**

- 1. The permittee shall maintain this emissions unit in accordance with the following work practices:
  - a. provide a permanent, legible, conspicuous label, summarizing the operating requirements;
  - b. store waste solvents in covered containers;
  - c. close the cover whenever parts are not being handled in the cleaner;
  - d. drain the cleaned parts until dripping ceases;
  - e. supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type spray) at a pressure that does not exceed 10 pounds per square inch gauge; and
  - f. clean only materials that are neither porous nor absorbent.
- 2. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of

time when the emissions unit is in operation, shall not be less than the average temperature during the most recent emission tests that demonstrated the emissions unit was in compliance. The average temperature difference across the catalyst bed at maximum operating capacity, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80% of the average temperature difference during the most recent emission tests that demonstrated the emissions unit was in compliance.

3. The emissions unit shall be equipped with a permanent total enclosure (PTE)\* which shall be installed and operated in accordance with 40 CFR Part 51, Appendix M, Method 204. The PTE shall meet the following criteria:
  - a. any "Natural Draft Opening" (NDO)\* shall be at least 4 equivalent diameters from each OC emission point;
  - b. the total area of all NDOs shall not exceed 5% of the surface area of the enclosure's four walls, floor and ceiling;
  - c. the average facial velocity (FV) of air through all NDOs shall be at least 3,600 m/hr (200 fpm) which corresponds to a pressure differential of 0.007 inch of water, and the direction of air through all NDOs shall be into the enclosure;
  - d. all access doors and windows whose areas are not included in paragraph (b) and are not included in the calculation in paragraph (c) shall be closed during routine operation; and
  - e. all OC emissions must be captured and vented to the OC control devices.

By satisfying the above criteria for a PTE, the OC capture efficiency shall be assumed to be 100%.

\* Definitions for PTE and NDO:

PTE: a permanently installed enclosure that completely surrounds a source of emissions such that all OC emissions are captured and contained for discharge through a control device.

NDO: any permanent opening in the enclosure that remains open during operation of the facility and is not connected to a duct to which a fan is installed.

4. The PTE shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a 3-hour average, whenever the emissions unit is in operation.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

### III. Monitoring and/or Record Keeping Requirements

1. The permittee operating each catalytic oxidizer used to control emissions from one or more product and packaging rotogravure or wide-web flexographic presses choosing to demonstrate compliance through performance tests of control device efficiency and continuing compliance through continuous monitoring of control device operating parameters, shall install, calibrate, operate and maintain a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of +/- 1 percent of the temperature being monitored in degrees Celsius or +/- 1 degree Celsius, whichever is greater. The thermocouple or temperature sensors shall be installed in the vent stream at the nearest feasible point to the catalyst inlet bed and downstream of the catalytic oxidizer's catalyst bed.

All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every three months; or the chart recorder data logger, or temperature indicator shall be replaced. The replacement shall be done either if the permittee chooses not to perform the calibration, or if the equipment cannot be calibrated properly.

2. The permittee shall collect and record the following information each day:
  - a. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 10 degrees Celsius below the average temperature of the exhaust gases during the most recent emission tests that demonstrated the emissions unit was in compliance;
  - b. all 3-hour blocks of time (when the emissions unit was in operation at maximum operating capacity) during which the average temperature difference across the catalyst bed was less than 80% of the average temperature difference during the most recent emission tests that demonstrated the emissions unit was in compliance; and
  - c. a log of all downtime periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.
3. The permittee shall maintain and operate monitoring device(s) and a recorder that simultaneously measures and records the differential pressure between the inside and outside of the PTE. The monitoring and recording devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall maintain daily records, when this emissions unit is in operation, of all 3-hour blocks of time during which the PTE was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a 3-hour average.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

#### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. all exceedances of the catalytic oxidizer temperature restrictions specified in A.II.2; and
  - b. all periods of time during which the PTE was not maintained at the required differential pressure of 0.007 inch of water, as a 3-hour average.
2. The deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.
3. The permittee shall submit annual reports that specify the total VOC emissions from this emissions unit, in tons, for the previous calendar year. The reports shall be submitted by January 31 of each year.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

#### V. Testing Requirements

1. Compliance with the emission limitations specified in Section A.I.1 shall be determined in accordance with the following methods:
2. Emission Limitation:

95%, by weight, overall control efficiency for VOC emissions

Applicable Compliance Method:

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

- a. The emission testing shall be conducted within 6 months after issuance of this permit.

Future emission testing shall be conducted at the frequency specified in Ohio EPA Engineering Guide #16 based on the results of the initial emission testing.

- b. The emission testing shall be conducted to demonstrate compliance with the overall control efficiency for VOC emissions.

- c. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

The overall control system efficiency for VOCs, shall be the product of the capture efficiency and the destruction efficiency (control efficiency) of the catalytic oxidizer.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(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.

The capture efficiency shall be determined using the test methods specified in 40 CFR Part 51, Appendix M, Method 204 through 204F, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the U.S. EPA Guidelines for Determining Capture Efficiency, dated January 9, 1995. The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and the use of the alternative if such approval does not contravene any other applicable requirement.

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

Personnel from Ohio EPA and/or the Hamilton County Department of Environmental Services shall be permitted to witness the tests, 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 tests shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

4. Emission Limitations: 2.7 lbs of VOC emissions/day; 0.50 TPY of VOC emissions

Applicable Compliance Method: The daily VOC emission limitation is based upon the emissions unit's potential to emit and was established by the following methodology:

$$[(\text{maximum of 6 lbs of VOC emissions/wash cycle}) \times (\text{maximum of 9 wash cycles/day}) \times (1 - \text{the overall control efficiency of the capture system and control device (0.95)})] = 2.7 \text{ lbs of VOC emissions/day}$$

\* 6 lbs of VOC emissions/wash cycle [the emission factor as obtained from the permittee]

The annual VOC emission limitation was established by multiplying the daily VOC emission limitation for coatings (2.7 lbs of VOC emissions/day) by 365 days/year, and dividing by 2,000 lbs/ton. Therefore, compliance with the annual VOC emission limitation is ensured if compliance is maintained with the daily VOC emission limitation.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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VI. **Miscellaneous Requirements**

- 1. None

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Facility ID: 1483040077 Issuance type: Title V Draft Permit

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: L001 Issuance type: Title V Draft Permit

**B. State Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

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

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
2. <b>Additional Terms and Conditions</b>			
1.	None		

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

II. **Operational Restrictions**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

III. **Monitoring and/or Record Keeping Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

IV. **Reporting Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

V. **Testing Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

VI. **Miscellaneous Requirements**

- 1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 1483040077 Issuance type: Title V Draft Permit

Part III - Terms and Conditions for Emissions Units

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: L003 Issuance type: Title V Draft Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
non-halogenated solvent cold cleaner currently employing a solvent with a vapor pressure greater than 0.6 psia at 100 degrees Fahrenheit - controlled with a catalytic oxidizer (a hood/fan vents emissions to the catalytic oxidizer when the cold cleaner cover is open)	OAC rule 3745-21-09(O)(2)	See Sections A.I.2.a through A.I.2.d below.

2. Additional Terms and Conditions

- a. Pursuant to OAC rule 3745-21-09(O)(2)(a) the cold cleaner shall be operated with a cover, and if the solvent has a vapor pressure greater than 0.3 pound per square inch absolute (psia), measured at 100 degrees Fahrenheit or, if the solvent is heated or agitated, the cover shall be designed and constructed so that it can be easily operated with one hand.
- b. Pursuant to OAC rule 3745-21-09(O)(2)(b) the cold cleaner shall be equipped with a device for draining the cleaned parts; and if the solvent has a vapor pressure greater than 0.6 psia, measured at 100 degrees Fahrenheit, the drainage facility shall be constructed internally so that parts are enclosed under the cover during draining, unless an internal type drainage device cannot fit into the cleaning system.
- c. Pursuant to OAC rule 3745-21-09(O)(2)(c), the permittee shall install one of the following devices if the solvent vapor pressure is greater than 0.6 psia at 100 degrees Fahrenheit, or if the solvent is heated above 120 degrees Fahrenheit:
  - i. freeboard that give a freeboard ratio greater than or equal to 0.7;
  - ii. water cover (solvent must be insoluble in and heavier than water); or
  - iii. other systems of equivalent control, such as refrigerated chiller or carbon adsorption, approved by the Director and maintain the cold cleaner in accordance with the operating practices, as specified by OAC rule 3745-21-09(O)(2)(d) (see Section A.II.2).
- d. Pursuant to OAC rule 3745-21-09(O)(2)(c)(iii) the Director has determined that the permittee is operating an equivalent control device. The approved control device consists of an emissions capture system that employs a hood/fan above the cold cleaner and vents emissions to a control device (catalytic oxidizer) operating at a minimum control efficiency of 95%, by weight, for VOC emissions.
- e. Pursuant to OAC rule 3745-21-09(O)(2)(d) the cold cleaner shall be operated and maintained in accordance with the following practices to minimize solvent evaporation from the unit:
  - i. provide a permanent, legible, conspicuous label, summarizing the operating requirements;
  - ii. store waste solvent in covered containers;
  - iii. close the cover whenever parts are not being handled in the cleaner;
  - iv. drain the cleaned parts until dripping ceases;
  - v. if used, supply a solvent spray that is a solid fluid stream (not a fine, atomized, or shower-type

spray) at a pressure that does not exceed 10 pounds per square inch gauge; and

vi. clean only materials that are neither porous nor absorbent.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

**II. Operational Restrictions**

1. The permittee shall not employ any halogenated cleaning solvents in this emissions unit.
2. The average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit is in operation, shall not be less than the average temperature during the most recent emission tests that demonstrated the emissions unit was in compliance. The average temperature difference across the catalyst bed at maximum operating capacity, for any 3-hour block of time when the emissions unit is in operation, shall not be less than 80% of the average temperature difference during the most recent emission tests that demonstrated the emissions unit was in compliance.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information for each solvent employed in the cold cleaner:
  - a. the name and identification of each solvents employed in the cold cleaner;
  - b. the vapor pressure of each solvent, in psia, measured at 100 degrees Fahrenheit; and
  - c. a listing of whether or not the solvent is a halogenated solvent.
2. The permittee operating each catalytic oxidizer used to control emissions from one or more product and packaging rotogravure or wide-web flexographic presses choosing to demonstrate compliance through performance tests of control device efficiency and continuing compliance through continuous monitoring of control device operating parameters, shall install, calibrate, operate and maintain a temperature monitoring device equipped with a continuous recorder. The device shall be capable of monitoring temperature with an accuracy of +/- 1 percent of the temperature being monitored in degrees Celsius or +/- 1 degree Celsius, whichever is greater. The thermocouple or temperature sensors shall be installed in the vent stream at the nearest feasible point to the catalyst inlet bed and downstream of the catalytic oxidizer's catalyst bed.
 

All temperature monitoring equipment shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator shall be verified every three months; or the chart recorder data logger, or temperature indicator shall be replaced. The replacement shall be done either if the permittee chooses not to perform the calibration, or if the equipment cannot be calibrated properly.
3. The permittee shall collect and record the following information each day:
  - a. all 3-hour blocks of time (when the emissions unit was in operation) during which the average temperature of the exhaust gases immediately before the catalyst bed was more than 10 degrees Celsius below the average temperature of the exhaust gases during the most recent emission tests that demonstrated the emissions unit was in compliance;
  - b. all 3-hour blocks of time (when the emissions unit was in operation at maximum operating capacity) during which the average temperature difference across the catalyst bed was less than 80% of the average temperature difference during the most recent emission tests that demonstrated the emissions unit was in compliance; and
  - c. a log of all downtime periods for the capture (collection) system, control device, and monitoring equipment, when the associated emissions unit was in operation.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

**IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the catalytic oxidizer temperature restrictions specified in A.II.2.
2. The quarterly deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.
3. The permittee shall notify the Hamilton County Department of Environmental Services, in writing, of all times a halogenated solvent was employed in this emissions unit. This report shall be submitted to the Hamilton County Department of Environmental Services within 30 days of the first use of a halogenated solvent and shall identify all days, that a halogenated solvent was employed (and the estimated quantity) in this emissions unit.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.\*\*\*

**V. Testing Requirements**

1. Compliance with the emission limitation specified in Section A.I.2 shall be determined in accordance with the

following method:

2. Emission Limitation:

95%, by weight, minimum control efficiency for VOC emissions

Applicable Compliance Method:

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

a. The emission testing shall be conducted within 6 months after issuance of this permit.

Future emission testing shall be conducted at the frequency specified in Ohio EPA Engineering Guide #16 based on the results of the initial emission testing.

b. The emission testing shall be conducted to demonstrate compliance with the minimum control efficiency for VOC emissions.

c. The tests shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10(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.

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

Personnel from Ohio EPA and/or the Hamilton County Department of Environmental Services shall be permitted to witness the tests, 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 tests shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 1483040077 Issuance type: Title V Draft Permit

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: L003 Issuance type: Title V Draft Permit

**B. State Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

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

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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2. **Additional Terms and Conditions**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**II. Operational Restrictions**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**III. Monitoring and/or Record Keeping Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**IV. Reporting Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**V. Testing Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**VI. Miscellaneous Requirements**

- 1. None

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Facility ID: 1483040077 Issuance type: Title V Draft Permit

**Part III - Terms and Conditions for Emissions Units**

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: P012 Issuance type: Title V Draft Permit

**A. State and Federally Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

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

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
ink mixer - Mixer #1	OAC rule 3745-31-05(A)(3) (PTI 14-03182)	7.5 lbs of organic compound (OC) emissions/hour, from the ink mixing operation
	OAC rule 3745-21-07(G)(2)	See Sections A.1.2 and A.II.1 below. Exempt, see Section A.1.2.b below.

**2. Additional Terms and Conditions**

- a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of tight-fitting covers, compliance with the ink production limitations, and compliance with the applicable OC emission limitation.
- b. The use of any photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5), is prohibited in this emissions unit.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**II. Operational Restrictions**

1. The maximum ink production in this emissions unit shall not exceed the following:
  - a. 1,000 lbs of ink mixed/hour;
  - b. 5,000 lbs of ink mixed/day; and
  - c. 600 tons of ink mixed/year.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the total amount of ink mixed, in lbs;
  - b. the total amount of solvent employed in the ink mixing operation, in lbs;
  - c. the total daily hours the ink mixer was in operation;
  - d. the average amount of ink mixed per hour, in lbs [a/c];
  - e. the average hourly OC emission rate, in lbs/hour [(b/c) x (0.62)\*]; and
  - f. whether or not each ink and solvent employed is a photochemically reactive material.

\* The emission factor of 62% evaporation loss is referenced from Table 3.3 (high solvent inks) of the National Association of Printing Ink Manufacturing Guide to Estimating VOC Emissions from Printing Ink Manufacturing.
2. The permittee shall maintain monthly records of the total amount of ink mixed each calendar month, in lbs (the summation A.III.1.a for each day of the calendar month).
3. The permittee shall maintain annual records of the total amount of ink mixed for the calendar year, in tons (the summation of A.III.2 for each month of the calendar year, and divided by 2,000 lbs/ton).

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**IV. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. an identification of all exceedances of the hourly and daily ink production restrictions; and
  - b. an identification of all exceedances of the hourly OC emission limitation.

The deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.
2. The permittee shall submit deviation reports that identify the days during which photochemically reactive materials were employed in this emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s), and the estimated total quantity of material(s) emitted during each such day, in pounds. Each report shall be submitted to the Hamilton County Department of Environmental Services within 30 days of the deviation.
3. The permittee shall submit annual reports that specify the total amount, in tons, of ink produced by this emissions unit for the previous calendar year. The reports shall be submitted by January 31 of each year.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**V. Testing Requirements**

1. Compliance with the emission limitation specified in Section A.I.1 and the ink production restrictions specified in Section A.II.1 shall be determined by the following methods:
  - a. Emission Limitation: 7.5 lbs of OC emissions/hour  

Applicable Compliance Method: Compliance with the hourly OC emission limitation may be determined by the record keeping requirements specified in Section A.III.1.

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 through 4 and 25.
  - b. Ink Production Rate Restrictions: 1,000 lbs of ink/hour; 5,000 lbs of ink/day; 600 tons of ink/year

Applicable Compliance Method: Compliance with the hourly and daily ink production restrictions shall be determined by the record keeping requirements specified in Section A.III.1. Compliance with the annual ink production rate restriction shall be determined by the record keeping requirements specified in Section A.III.3.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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VI. **Miscellaneous Requirements**

- 1. None

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Facility ID: 1483040077 Issuance type: Title V Draft Permit

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: P012 Issuance type: Title V Draft Permit

**B. State Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

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

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
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2. **Additional Terms and Conditions**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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II. **Operational Restrictions**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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III. **Monitoring and/or Record Keeping Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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IV. **Reporting Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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V. **Testing Requirements**

- 1. None

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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VI. **Miscellaneous Requirements**

- 1. None

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Facility ID: 1483040077 Issuance type: Title V Draft Permit

**Part III - Terms and Conditions for Emissions Units**

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: P013 Issuance type: Title V Draft Permit

**A. State and Federally Enforceable Section**

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

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

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
ink mixer - Mixer #2	OAC rule 3745-31-05(A)(3) (PTI 14-03182)	7.5 lbs of organic compound (OC) emissions/hour, from the ink mixing operation
	OAC rule 3745-21-07(G)(2)	See Sections A.I.2 and A.II.1 below. Exempt, see Section A.I.2.b below.

**2. Additional Terms and Conditions**

- a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of tight-fitting covers, compliance with the ink production limitations, and compliance with the applicable OC emission limitation.
- b. The use of any photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5), is prohibited in this emissions unit.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**II. Operational Restrictions**

1. The maximum ink production in this emissions unit shall not exceed the following:
  - a. 1,000 lbs of ink mixed/hour;
  - b. 5,000 lbs of ink mixed/day; and
  - c. 600 tons of ink mixed/year.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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**III. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information each day for this emissions unit:
  - a. the total amount of ink mixed, in lbs;
  - b. the total amount of solvent employed in the ink mixing operation, in lbs;
  - c. the total daily hours the ink mixer was in operation;
  - d. the average amount of ink mixed per hour, in lbs [a/c];
  - e. the average hourly OC emission rate, in lbs/hour [(b/c) x (0.62)\*]; and
  - f. whether or not each ink and solvent employed is a photochemically reactive material.

\* The emission factor of 62% evaporation loss is referenced from Table 3.3 (high solvent inks) of the National Association of Printing Ink Manufacturing Guide to Estimating VOC Emissions from Printing Ink Manufacturing.
2. The permittee shall maintain monthly records of the total amount of ink mixed each calendar month, in lbs (the summation A.III.1.a for each day of the calendar month).

3. The permittee shall maintain annual records of the total amount of ink mixed for the calendar year, in tons (the summation of A.III.2 for each month of the calendar year, and divided by 2,000 lbs/ton).

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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#### IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. an identification of all exceedances of the hourly and daily ink production restrictions; and
  - b. an identification of all exceedances of the hourly OC emission limitation.

The deviation reports shall be submitted in accordance with paragraph A.1.c.ii of the General Terms and Conditions of this permit.
2. The permittee shall submit deviation reports that identify the days during which photochemically reactive materials were employed in this emissions unit. Each report shall identify the cause for the use of the photochemically reactive material(s), and the estimated total quantity of material(s) emitted during each such day, in pounds. Each report shall be submitted to the Hamilton County Department of Environmental Services within 30 days of the deviation.
3. The permittee shall submit annual reports that specify the total amount, in tons, of ink produced by this emissions unit for the previous calendar year. The reports shall be submitted by January 31 of each year.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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#### V. Testing Requirements

1. Compliance with the emission limitation specified in Section A.I.1 and the ink production restrictions specified in Section A.II.1 shall be determined by the following methods:
  - a. Emission Limitation: 7.5 lbs of OC emissions/hour
 

Applicable Compliance Method: Compliance with the hourly OC emission limitation may be determined by the record keeping requirements specified in Section A.III.1.

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 through 4 and 25.
  - b. Ink Production Rate Restrictions: 1,000 lbs of ink/hour; 5,000 lbs of ink/day; 600 tons of ink/year
 

Applicable Compliance Method: Compliance with the hourly and daily ink production restrictions shall be determined by the record keeping requirements specified in Section A.III.1. Compliance with the annual ink production rate restriction shall be determined by the record keeping requirements specified in Section A.III.3.

[Go to the top of this document](#)

[Go to the top of Part III for this Emissions Unit](#)

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#### VI. Miscellaneous Requirements

1. None

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Facility ID: 1483040077 Issuance type: Title V Draft Permit

[Go to the top of this document](#)

Facility ID: 1483040077 Emissions Unit ID: P013 Issuance type: Title V Draft Permit

#### B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

#### I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or

control measures (if any) may 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>
<b>2. Additional Terms and Conditions</b>		
1. None		
<a href="#">Go to the top of this document</a> <a href="#">Go to the top of Part III for this Emissions Unit</a> ***THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.***		
<b>II. Operational Restrictions</b>		
1. None		
<a href="#">Go to the top of this document</a> <a href="#">Go to the top of Part III for this Emissions Unit</a> ***THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.***		
<b>III. Monitoring and/or Record Keeping Requirements</b>		
1. None		
<a href="#">Go to the top of this document</a> <a href="#">Go to the top of Part III for this Emissions Unit</a> ***THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.***		
<b>IV. Reporting Requirements</b>		
1. None		
<a href="#">Go to the top of this document</a> <a href="#">Go to the top of Part III for this Emissions Unit</a> ***THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.***		
<b>V. Testing Requirements</b>		
1. None		
<a href="#">Go to the top of this document</a> <a href="#">Go to the top of Part III for this Emissions Unit</a> ***THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION.***		
<b>VI. Miscellaneous Requirements</b>		
1. None		