



State of Ohio Environmental Protection Agency

Street Address:

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

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

Mailing Address:

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

09/17/03

**RE: Proposed Title V Chapter 3745-77 Permit  
14-83-04-0077  
Sonoco Flexible Packaging Co Inc**

Attn: Genevieve Damico AR-18J  
United States Environmental Protection Agency  
Region V  
77 West Jackson Blvd.  
Chicago, IL 60604-3590

Dear Ms. Damico:

The proposed issuance of the Title V permit for Sonoco Flexible Packaging Co Inc, has been created in Ohio EPA's State Air Resources System (STARS) on 09/17/03, for review by USEPA. This proposed action is identified in STARS as  3-Title V Proposed Permit T+C covering the facility specific terms and conditions, and  Title V Proposed Permit covering the general terms and conditions. This proposed permit will be processed for issuance as a final action after forty-five (45) days from USEPA's receipt of this certified letter if USEPA does not object to the proposed permit. Please contact me at (614) 644-3631 by the end of the forty-five (45) day review period if you wish to object to the proposed permit.

Very truly yours,

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

cc: Hamilton County Dept. of Environmental Services  
File, DAPC PMU



State of Ohio Environmental Protection Agency

PROPOSED TITLE V PERMIT

Issue Date: 09/17/03	Effective Date: To be entered upon final issuance	Expiration Date: To be entered upon final issuance
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This document constitutes issuance of a Title V permit for Facility ID: 14-83-04-0077 to:  
 Sonoco Flexible Packaging Co Inc  
 708 South Avenue  
 Franklin, OH 45005

**Emissions Unit ID (Company ID)/Emissions Unit Activity Description**

K008 (Black Clawson Extruder-Laminator) Extruder-Laminator with Catalytic Oxidizer	K011 (11-Station Rotogravure Press with Laminator) 11-station rotogravure printing press and in-line laminator with permanent total enclosure and catalytic oxidizer	P012 (Lightnin Ink Mixer #1) Lightnin Ink Mixer
K009 (Rotomec 10-Station Press) Rotogravure Printing Press	L003 (Cold Cleaner) 48"x60"x15" Parts Wash Tank	P013 (Lightnin Ink Mixer #2) Lightnin Ink Mixer
K010 (2-Station Extruder/Laminator) 2-station extruder/laminator with permanent total enclosure and catalytic oxidizer	L006 (Cold Cleaner) PRI Parts Wash Machine	

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Hamilton County Dept. of Environmental Services  
 250 William Howard Taft Rd  
 Cincinnati, OH 45219-2660  
 (513) 946-7777

OHIO ENVIRONMENTAL PROTECTION AGENCY

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Christopher Jones  
 Director

## PART I - GENERAL TERMS AND CONDITIONS

### A. *State and Federally Enforceable Section*

#### 1. **Monitoring and Related Record Keeping and Reporting Requirements**

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.III of Part III of this Title V permit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
- i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))*

- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))*

- c. The permittee shall submit required reports in the following manner:

- i. **All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:**

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with General Term and Condition A.1.c.ii below; and each report shall cover the previous calendar quarter.

In accordance with OAC rule 3745-15-06, a malfunction constitutes a violation of an emission limitation (or control requirement) and, therefore, is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.  
*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*

- ii. **Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.IV of Part III of this Title V permit or, in some cases, in Part II of this Title V permit, all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. OAC rule 3745-77-07(A)(3)(c) is not fully satisfied until the permittee addresses all other deviations of the federally enforceable requirements specified in the permit.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement overrides the reporting requirements specified in this General Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement

will also satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this General Term and Condition.

See B.6 below if no deviations occurred during the quarter.  
(*Authority for term: OAC rule 3745-77-07(A)(3)(c)*)

- iii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted in the following manner:**

Written reports that identify all other deviations of the federally enforceable requirements contained in this permit, including the monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with General Term and Condition A.1.c.ii above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.  
(*Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii)*)

- iv. Each written report shall be signed by a responsible official certifying that, "based on information and belief formed after reasonable inquiry, the statements and information in the report (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."  
(*Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv)*)
- v. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.  
(*Authority for term: OAC rule 3745-77-07(A)(3)(c)*)

## 2. **Scheduled Maintenance**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any

scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in General Term and Condition A.1.c.i above.

*(Authority for term: OAC rule 3745-77-07(A)(3)(c))*

### 3. Risk Management Plans

If applicable, the permittee shall develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq. (“Act”); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

- a. a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b. as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

*(Authority for term: OAC rule 3745-77-07(A)(4))*

### 4. Title IV Provisions

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

*(Authority for term: OAC rule 3745-77-07(A)(5))*

### 5. Severability Clause

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

*(Authority for term: OAC rule 3745-77-07(A)(6))*

### 6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

*(Authority for term: OAC rule 3745-77-07(A)(7))*

**7. Fees**

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

*(Authority for term: OAC rule 3745-77-07(A)(8))*

**8. Marketable Permit Programs**

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

*(Authority for term: OAC rule 3745-77-07(A)(9))*

**9. Reasonably Anticipated Operating Scenarios**

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

*(Authority for term: OAC rule 3745-77-07(A)(10))*

**10. Reopening for Cause**

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate

statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

*(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))*

## **11. Federal and State Enforceability**

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

*(Authority for term: OAC rule 3745-77-07(B))*

## **12. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
  - ii. Compliance certifications shall include the following:
    - (a) An identification of each term or condition of this permit that is the basis of the certification.
    - (b) The permittee's current compliance status.
    - (c) Whether compliance was continuous or intermittent.
    - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
    - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
  - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

*(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))*

### **13. Permit Shield**

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

*(Authority for term: OAC rule 3745-77-07(F))*

### **14. Operational Flexibility**

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

*(Authority for term: OAC rules 3745-77-07(H)(1) and (2))*

**15. Emergencies**

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

*(Authority for term: OAC rule 3745-77-07(G))*

**16. Off-Permit Changes**

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA. Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

*(Authority for term: OAC rule 3745-77-07(I))*

**17. Compliance Method Requirements**

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

*(This term is provided for informational purposes only.)*

**18. Insignificant Activities**

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

*(Authority for term: OAC rule 3745-77-07(A)(1))*

**19. Permit to Install Requirement**

Prior to the “installation” or “modification” of any “air contaminant source,” as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

*(Authority for term: OAC rule 3745-77-07(A)(1))*

**20. Air Pollution Nuisance**

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

*(Authority for term: OAC rule 3745-77-07(A)(1))*

**21. Permanent Shutdown of an Emissions Unit**

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification by the responsible official of the date on which the emissions unit was permanently shut down. Authorization to operate the affected part or activity of the stationary source shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

If an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent “modification” or “installation” as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an “emissions unit” as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any monitoring, record keeping, reporting, or testing requirements, applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

**B. *State Only Enforceable Section***

**1. Reporting Requirements Related to Monitoring and Record Keeping Requirements**

The permittee shall submit required reports in the following manner:

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

**2. Records Retention Requirements**

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

**3. Inspections and Information Requests**

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

**4. Scheduled Maintenance/Malfunction Reporting**

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

control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**5. Permit Transfers**

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

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a. where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in General Term and Condition A.1.c.ii;
- b. where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; and
- c. where the company's responsible official has certified that an emissions unit has been permanently shut down.

## Part II - Specific Facility Terms and Conditions

### A. State and Federally Enforcable 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.

- 1.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.
- 1.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).
- 1.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).
- 1.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).
- 1.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.
- 1.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.

**A. State and Federally Enforcable Section (continued)**

**1.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.

**1.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.

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

- P011 - distillation unit [Permit to Install 14-01769];
- T006 - 5,000-gallon reclaimed solvent tank;
- T007 - 5,000-gallon dirty solvent tank;
- T008 - 5,000-gallon solvent tank [Permit to Install 14-01720];
- T009 - 5,000-gallon solvent tank [Permit to Install 14-01720];
- T010 - 5,000-gallon solvent tank [Permit to Install 14-01720];
- T011 - 5,000-gallon solvent tank [Permit to Install 14-01720];
- T013 - 2,680-gallon solvent tank [Permit to Install 14-02327];
- T015 - 2,640-gallon varnish tank [Permit to Install 14-02940]; and
- T016 - 2,640-gallon varnish tank [Permit to Install 14-02940].

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, and well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more of the applicable requirements contained in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.

**B. State Only Enforceable Section**

1. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirement (as defined in OAC rule 3745-77-01(H)) or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

Z001 - 3 gas-fired space heaters;

Z002 - 6 slitters; and

Z003 - resin feeder system.

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

**Emissions Unit ID:** Black Clawson Extruder-Laminator (K008)  
**Activity Description:** Extruder-Laminator with Catalytic Oxidizer

#### A. State and Federally Enforceable Section

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

- 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	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).
	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.I.2.a and A.I.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

- 2.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.
- 2.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.
- 2.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.
- 2.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.

## 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 50 degrees Fahrenheit 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.

## II. Operational Restrictions (continued)

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.

## 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% of the temperature being monitored in degrees Fahrenheit or +/- 1 degree Fahrenheit, 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 50 degrees Fahrenheit 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.

### **III. Monitoring and/or Record Keeping Requirements (continued)**

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).

### **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.

### **V. Testing Requirements**

1. Compliance with the VOC emission limitations specified in Section A.I.1 shall be determined by the following methods:

## V. Testing Requirements (continued)

### 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:

This emissions unit demonstrated compliance with the VOC and HAP emission limitations through emission testing performed on December 12, 2002.

If required, the permittee shall demonstrate compliance with the hourly VOC emission limitation and overall control efficiency requirements for VOCs and HAPs through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 25 (hourly and control efficiency), and 40 CFR Part 51, Appendix M, Method 204 (capture efficiency).

- a. 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.
- b. 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.
- c. 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.
- d. 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.

## V. Testing Requirements (continued)

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:

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

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.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**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**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**Emissions Unit ID:** Rotomec 10-Station Press (K009)

**Activity Description:** Rotogravure Printing Press

#### A. State and Federally Enforceable Section

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

- 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, A.I.2.b and A.II.3 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.5 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**

- 2.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.
- 2.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.
- 2.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.

- 2.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.

## **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 50 degrees Fahrenheit 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.

## II. Operational Restrictions (continued)

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.

## 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% of the temperature being monitored in degrees Fahrenheit or +/- 1 degree Fahrenheit, 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.

### III. Monitoring and/or Record Keeping Requirements (continued)

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 50 degrees Fahrenheit 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).

#### 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.

#### 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:

This emissions unit demonstrated compliance with the VOC and HAP emission limitations through emission testing performed on December 12, 2002.

If required, the permittee shall demonstrate compliance with the hourly VOC emission limitation and overall control efficiency requirements for VOCs and HAPs through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1-4, and 25 (hourly and control efficiency), and 40 CFR Part 51, Appendix M, Method 204 (capture efficiency).

- a. 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.
- b. 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.
- c. 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.
- d. 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.

## V. Testing Requirements (continued)

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 per 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:

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

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.

**V. Testing Requirements (continued)**

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.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**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**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**Emissions Unit ID:** 2-Station Extruder/Laminator (K010)

**Activity Description:** 2-station extruder/laminator with permanent total enclosure and catalytic oxidizer

#### A. State and Federally Enforceable Section

##### 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	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.
	OAC rule 3745-21-09(Y)(1)(b)	See Sections A.2.a and A.2.b below. 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

- 2.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.

## 2. Additional Terms and Conditions (continued)

**2.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.

**2.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.

**2.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.

## 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 50 degrees Fahrenheit 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.

### 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% of the temperature being monitored in degrees Fahrenheit or +/- 1 degree Fahrenheit, 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 50 degrees Fahrenheit 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).

### III. Monitoring and/or Record Keeping Requirements (continued)

7. The permittee shall maintain records documenting the overall organic HAP control efficiency as required in 40 CFR Section 63.825(d).

### 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.

#### **IV. Reporting Requirements (continued)**

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.

#### **V. Testing Requirements**

1. Compliance with the emission limitations specified in Sections A.I.1 and A.I.2.a shall be determined in accordance with the following methods:

## V. Testing Requirements (continued)

### 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 or within 6 months after startup of the emissions unit.

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.

## V. Testing Requirements (continued)

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:

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

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.

**V. Testing Requirements (continued)**

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.

**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.

**B. State Enforceable Section**

**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**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**Emissions Unit ID:** 11-Station Rotogravure Press with Laminator (K011)  
**Activity Description:** 11-station rotogravure printing press and in-line laminator with permanent total enclosure and catalytic oxidizer

#### A. State and Federally Enforceable Section

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

- 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, A.I.2.b and A.II.3 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.5 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**

- 2.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.
- 2.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.
- 2.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.
- 2.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.

## **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 50 degrees Fahrenheit 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.

**II. Operational Restrictions (continued)**

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.

### 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% of the temperature being monitored in degrees Fahrenheit or +/- 1 degree Fahrenheit, 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 50 degrees Fahrenheit 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.

### III. Monitoring and/or Record Keeping Requirements (continued)

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).

### 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.

#### IV. Reporting Requirements (continued)

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.

#### **IV. Reporting Requirements (continued)**

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.

#### **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:

## V. Testing Requirements (continued)

### 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:

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 or within 6 months after startup of the emissions unit.

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.

## V. Testing Requirements (continued)

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:

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

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.

**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.

**B. State Enforceable Section**

**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**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**Emissions Unit ID:** Cold Cleaner (L003)  
**Activity Description:** 48"x60"x15" Parts Wash Tank

#### A. State and Federally Enforceable Section

##### 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

- 2.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.
- 2.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.
- 2.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).

## 2. Additional Terms and Conditions (continued)

- 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.
- 2.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.

## 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 50 degrees Fahrenheit below 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.

## 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% of the temperature being monitored in degrees Fahrenheit or +/- 1 degree Fahrenheit, 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.

### III. Monitoring and/or Record Keeping Requirements (continued)

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 50 degrees Fahrenheit 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.

### 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.

### 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.

## **V. Testing Requirements (continued)**

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.

## **VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**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**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**Emissions Unit ID:** Cold Cleaner (L006)  
**Activity Description:** PRI Parts Wash Machine

#### A. State and Federally Enforceable Section

##### 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 through the washer's enclosed design and by venting the captured emissions to a catalytic oxidizer	OAC rule 3745-31-05(A)(3) (PTI 14-05405)	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.
	OAC rule 3745-21-09(O)(2)	See Section A.II.1 below.

##### 2. Additional Terms and Conditions

- 2.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 (inherent to the enclosed design of the parts washer) and 95%, by weight, overall control efficiency for VOC emissions and compliance with the daily and annual VOC emission limitations.
- 2.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.

## 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 50 degrees Fahrenheit below 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.

## 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% of the temperature being monitored in degrees Fahrenheit or +/- 1 degree Fahrenheit, 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 50 degrees Fahrenheit 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.

#### 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 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.

#### 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 or within 6 months after startup of the emissions unit.

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.

## V. Testing Requirements (continued)

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.

## VI. Miscellaneous Requirements

**None**

**B. State Enforceable Section**

**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**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**Emissions Unit ID:** Lightnin Ink Mixer #1 (P012)

**Activity Description:** Lightnin Ink Mixer

#### A. State and Federally Enforceable Section

##### 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.I.2 and A.II.1 below. Exempt, see Section A.I.2.b below.

##### 2. Additional Terms and Conditions

- 2.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.
- 2.b The use of any photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5), is prohibited in this emissions unit.

##### 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.

### 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).

### 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.

### 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:

- 1.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.

**V. Testing Requirements (continued)**

**1.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.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**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**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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

**Emissions Unit ID:** Lightnin Ink Mixer #2 (P013)

**Activity Description:** Lightnin Ink Mixer

#### A. State and Federally Enforceable Section

##### 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

- 2.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.
- 2.b The use of any photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5), is prohibited in this emissions unit.

##### 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.

### 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).

### 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.

### 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:

- 1.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.

**V. Testing Requirements (continued)**

**1.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.

**VI. Miscellaneous Requirements**

**None**

**B. State Enforceable Section**

**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**

None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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