



Environmental
Protection Agency

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

8/23/2010

Certified Mail

Tim Nuckols
Sonoco Flexible Packaging Co Inc
708 South Avenue
Franklin, OH 45005

Facility ID: 1483040077
Permit Number: P0100479
County: Warren

RE: FINAL AIR POLLUTION CONTROL TITLE V PERMIT
Permit Type: Renewal

Dear Permit Holder:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully. Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

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

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

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Hamilton County Dept. of Environmental Services. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: U.S. EPA Region 5 Via E-Mail Notification
Hamilton County Dept. of Environmental Services



Response to Comments

Response to comments for: Title V Permit

Table with 2 columns: Field Name and Value. Fields include Facility ID, Facility Name, Facility Description, Facility Address, Permit #, and public notice details.

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

Comment 1

The draft permit includes Emissions Unit P013 (Lightning Mixer #2) – this unit is no longer in operation and the relevant sections should be removed from the permit.

Response to comment 1

The emission unit was removed from the PPP Title V.

Comment 2

The source description for Emissions Unit P014 should be corrected from 'Lightning Mixer #3' to 'Schold Mixer'

Response to comment 2

The name change requested was made

Comment 3

The stack testing frequency for K008-K010 should be changed from 2.5 years after permit issuance and within six-months of expiration to only be required within six-months of permit expiration.

Response to comment 3

After reviewing the March 24 and March 25th 2009 Stack Test results for K008-K010 and Ohio EPA Engineering Guide 16, our agency agrees the stack testing frequency may be changed to only require stack testing within six-months of permit expiration.



FINAL

**Division of Air Pollution Control
Title V Permit
for
Sonoco Flexible Packaging Co Inc**

Facility ID: 1483040077
Permit Number: P0100479
Permit Type: Renewal
Issued: 8/23/2010
Effective: 9/13/2010
Expiration: 9/13/2015



Division of Air Pollution Control
Title V Permit
for
Sonoco Flexible Packaging Co Inc

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Authorization

Facility ID: 1483040077
Facility Description: Product flexible packaging printing facility.
Application Number(s): A0032215
Permit Number: P0100479
Permit Description: Title V Permit Renewal
Permit Type: Renewal
Issue Date: 8/23/2010
Effective Date: 9/13/2010
Expiration Date: 9/13/2015
Superseded Permit Number:

This document constitutes issuance of an OAC Chapter 3745-77 Title V permit to:

Sonoco Flexible Packaging Co Inc
708 South Avenue
Franklin, OH 45005

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

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

The above named entity is hereby granted a Title V permit pursuant to Chapter 3745-77 of the Ohio Administrative Code. 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. You will be sent a notice approximately 18 months prior to the expiration date regarding the renewal of this permit. If you do not receive a notice, please contact the Hamilton County Dept. of Environmental Services. 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, if a timely renewal application is submitted. A renewal application will be considered timely if it is submitted no earlier than 18 months (540 days) and no later than 6 months (180 days) prior to the expiration date.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Chris Korleski
Director

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A. 24., Reporting Requirements Related to Monitoring and Record Keeping Requirements of State-Only Enforceable Permit Terms and Conditions
 - (2) Standard Term and Condition A. 25., Records Retention Requirements for State-Only Enforceable Permit Terms and Conditions
 - (3) Standard Term and Condition A. 27., Scheduled Maintenance/Malfunction Reporting
 - (4) Standard Term and Condition A. 29., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(Authority for term: ORC 3704.036(A))

2. 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 C. Emissions Unit Terms and Conditions of this Title V permit), the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
- (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) 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:
- (1) 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 (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with Standard Term and Condition A.2.c)(2) below; and each report shall cover the previous calendar quarter. An exceedance of the visible emission limitations specified in OAC rule 3745-17-07(A)(1) that is caused by a malfunction is not a violation and does not need to be reported as a deviation if the owner or operator of the affected air contaminant source or air pollution control equipment complies with the requirements of OAC rule 3745-17-07(A)(3)(c).

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) 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))

- (2) Except as may otherwise be provided in the terms and conditions for a specific emissions unit (i.e., in section C. Emissions Unit Terms and Conditions of this Title V permit or, in some cases, in section B. Facility-Wide Terms and Conditions 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 (i.e., postmarked) 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 deviation reports shall satisfy the requirements 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. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

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 satisfies the reporting requirements specified in this Standard 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 (for the deviations so reported) the requirements 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 Standard Term and Condition.

See A.29 below if no deviations occurred during the quarter.

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

- (3) 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 Standard Term and Condition A.2)c)(2) above shall be submitted in the following manner:

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; Standard Terms and Conditions: A.3, A.4, A.5, A.7.e), A.8, A.13, A.15, A.19, A.20, A.21, and A.23 of this Title V permit, as well as any deviations from the requirements in section C. Emissions Unit Terms and Conditions of this Title V permit, and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with Standard Term and Condition A.2.c)(2) above shall be submitted (i.e., postmarked) 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. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in section B. Facility-Wide Terms and Conditions of this Title V permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

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 and 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 Standard Term and Condition A.2.c)(2) 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) and OAC rule 3745-77-07(A)(13)(b))

- (4) 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))

- (5) Reports of any required monitoring and/or record keeping information shall be submitted to Hamilton County Dept. of Environmental Services.

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

3. 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 Standard Term and Condition A.2.c)(1) above.

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

4. 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))

5. 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))

6. 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))

7. 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 Standard Term and Condition A.11 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.
- f) Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable when:
 - (1) the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or
 - (2) the permittee no longer meets the definition of a "major source" as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or



(3) a combination of (1) and (2) above.

The permittee shall continue to comply with all applicable OAC Chapter 3745-31 requirements for all regulated air contaminant sources once this permit ceases to be enforceable. The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.

(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

8. 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))

9. 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))

10. 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 standard terms and conditions shall apply to all operating scenarios authorized in this permit.

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

11. 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))

12. 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))

13. 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:
 - (1) 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.
 - (2) 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.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) 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:
 - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

- (2) 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:
- (1) Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.
 - (2) 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.
 - (3) 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))

14. 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))

15. 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))

16. 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))

17. 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, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). 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))

18. 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.)

19. Insignificant Activities or Emissions Levels

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

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

20. 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))

21. 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))

22. 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 from the responsible official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

After the date on which 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 Title V permit 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.

(Authority for term: OAC rule 3745-77-01)

23. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

- a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.
- b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.
- c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

24. Reporting Requirements Related to Monitoring and Record Keeping Requirements Under State Law Only

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 (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

25. Records Retention Requirements Under State Law Only

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.

26. 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.

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

27. 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).

28. 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.

(Authority for term: OAC rule 3745-77-01(C))

29. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

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 (i.e., postmarked) 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 Standard Term and Condition A.2.c)(2); or
- 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; or
- c) where the company's responsible official has certified that an emissions unit has been permanently shut down.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

a) None.

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

B002-5.0 MMBtu/hr #2 fuel oil/propane-fired boiler;
B003-6.3 MMBtu/hr natural gas/propane-fired boiler;
P011-distillation Unit including clean and dirty solvent tanks (PTI 14-01769);
P015-resin feeder system (formerly Z003);
P016-laser scoring machine with 2 lasers (formerly Z004);
P017-laser scoring machine with 4 lasers (formerly Z005); and
P018-ink dispensing system (formerly Z006).

Each insignificant emissions unit at this facility must comply with all applicable state and federal regulations, as well as any emission limitations and/or control requirements contained within a 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 applicable requirements contained in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21.

3. 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:

B005-4-small gas-fired space heaters less than 1 MMBtu/hr (formerly Z001);
L003-Non-halogenated cold cleaner
L006-Non-halogenated cold cleaner (PTI 14-05405)
T008-5,000 gallon solvent storage tank #4 (PTI 14-01720);
T009-5,000 gallon solvent storage tank #5 (PTI 14-01720);
T010-5,000 gallon solvent storage tank #6 (PTI 14-01720); and
T011-5,000 gallon solvent storage tank #7 (PTI 14-01720).

4. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subparts KK, National Emission Standards for Hazardous Air Pollutants for the Printing and Publishing Industry (surface coating): K008, K009 and K010. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.

The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart KK. The permittee shall also comply with all applicable requirements of 40 CFR Part 63, Subpart A (General Provisions) as identified in Table 1 of 40 CFR Part 63, Subpart KK.

C. Emissions Unit Terms and Conditions



1. K008, Black Clawson Extruder-Laminator

Operations, Property and/or Equipment Description:

Extruder/rotogravure flexible packaging laminator with permanent total enclosure and catalytic oxidizer

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 14-05095)	<p>Volatile Organic Compound (VOC) emissions shall not exceed 2.15 pounds per hour, excluding cleanup materials.*</p> <p>VOC emissions from coatings employed in this emission unit shall not exceed 9.43 tons per year.</p> <p>VOC emissions from the cleanup materials employed at this emission unit shall not exceed 3.89 tons per year.</p> <p>See b)(2)a.-b)(2)e.</p> <p>The requirements of this rule also include compliance with the applicable requirements of 40 CFR Part 63, Subpart KK.</p> <p>*The hourly emission limitation is based on the emissions unit's potential to emit. Therefore, there is no hourly record keeping required to demonstrate compliance.</p>
b.	40 CFR, Part 63, Subpart KK (40 CFR 63.820 – 63.831) [In accordance with 40 CFR 63.822, this emissions unit as part of its	<p>See b)(2)a., b., and c.</p> <p>The capture and control requirements specified in 40 CFR Part 63 are the same as or less stringent than those</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	rotogravure flexible packaging laminator operation at an existing product and packaging rotogravure printing operation is subject to the emission limitations/control measures specified in this section.]	established pursuant to OAC rule 3745-31-05(A)(3).
c.	40 CFR 63.1-15	Table 1 to 40 CFR, Part 63, Subpart KK – Applicability of General Provisions to Subpart KK shows which parts of the General Provisions in 40 CFR 63.1-15 apply.
d.	OAC rule 3745-21-09(Y)(1)(b)	The minimum overall control efficiency specified by this rule is less stringent than the minimum overall control efficiency established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The permittee shall operate and maintain a capture and control system that shall provide not less than a 95 percent reduction, by weight, in the overall VOC and organic Hazardous Air Pollutants (HAP) emissions from the coating line. This shall be accomplished by the use of a Permanent Total Enclosure for capture and a catalytic incinerator for destruction.
- b. In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit(s) controlled by the catalytic incinerator is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.
- c. The permanent total enclosure shall be constructed to totally enclose the application stations, coating reservoirs, and all areas from the application station to the oven and the control device, such that all volatile organic compound emissions are captured, contained, and directed to the catalytic incinerator.
- d. The permanent total enclosure shall be maintained under negative pressure whenever the emissions unit is in operation, and shall be designed and maintained to have an average facial velocity of air through each natural draft opening of at least 200 feet per minute (3,600 m/hr). Compliance with the average facial velocity shall be demonstrated during the compliance test, by either using an air flow monitor or a differential pressure gauge at each natural draft opening, and maintaining the required facial velocity or the corresponding negative pressure. The permanent total enclosure shall meet all of the following

criteria if the capture efficiency of the enclosure and control device is to be assumed to be 100%:

- i. Any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point. An equivalent diameter is the diameter of a circle that has the same area as the opening. If the opening is not circular the equivalent diameter (ED) is calculated as follows:

$$ED = (4 \text{ area} / \pi)^{0.5}$$

- ii. The total area of all natural draft openings (A_N) shall not exceed 5 percent of the total surface area of the enclosure (A_T), i.e, the four walls, floor, and ceiling. The natural draft opening to enclosure area ratio (NEAR) is calculated as follows:

$$NEAR = A_N / A_T$$

- iii. The direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity of no less than 200 feet per minute (3,600 m/hr) or a pressure drop of 0.013 mm Hg (0.007 in. H₂O).
 - iv. All access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in "b", shall be completely closed to any air movement during process operations.
 - v. All VOC emissions shall be captured and contained for discharge through the control device.
- e. The permanent total enclosure (PTE) serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a permanent total enclosure in 40 CFR, Part 51, Appendix M, Reference Method 204, and shall capture all of the VOC emissions from this emissions unit.

c) Operational Restrictions

- (1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart KK, including the following: c)(3) and c)(4).
- (2) The catalytic incinerator shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The conversion efficiency of the catalyst, as determined in an annual catalyst activity test, shall be at least 90% at a test temperature that is equal to that temperature at which the inlet to the catalyst bed is set. Solvent loading during the catalyst activity test shall be consistent with the test laboratory's normal testing protocol.

[Authority for Term: OAC rule 3745-77-07(A)(1)]

- (3) The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 in. H₂O), whenever the emissions unit is in operation.

[Authority for Term: OAC rules 3745-77-07(A)(1), 3745-31-05(A)(3), 40 CFR Part 63.828(a)(5)]

- (4) Pursuant to 40 CFR Section 63.828(b), and excursion 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 of the emission standard. The operating parameters established pursuant to 40 CFR Section 63.828(a)(4) and (a)(5) are specified in b)(2)b. and b)(2)c of these terms.

[Authority for Term: OAC rules 3745-77-07(A)(1), 3745-31-05(A)(3), and 40 CFR 63.828(b)]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart KK, including the following: d)(2), d)(3), d)(6), d)(7), d)(9), and d)(10).
- (2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit(s) controlled by the catalytic incinerator is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance. The acceptable average temperature difference across the catalyst bed, for any 3-hour block of time (when the emissions unit(s) is/are in operation), shall not be less than 80 percent of the average temperature difference measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-21-09(B)(3)(l)(iii), and 40 CFR Part 63.828(a)(4)]

- (3) The permittee shall properly operate and maintain continuous temperature monitors and recorder(s) that measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit(s) is/are in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitors and recorder(s) shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:
 - a. all 3-hour blocks of time, when the emissions unit(s) controlled by the catalytic incinerator was/were 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 measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;

- b. all 3-hour blocks of time, when the emissions unit(s) controlled by the catalytic incinerator was/were in operation, during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance; and
- c. a log or record of the operating time for the capture (collection) system, catalytic incinerator, monitoring equipment, and the associated emissions unit(s).

The permittee may use a temperature chart recorder or equivalent recording device as the log that documents the temperature differential across the catalyst bed. These records shall be maintained at the facility for a period of no less than 3 years.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-21-09(B)(3)(I)(iii), and 40 CFR Part 63.828(a)(4)]

- (4) The permittee shall perform a preventative maintenance inspection of the catalytic incinerator on an annual basis to evaluate the performance of the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations, and shall include a physical inspection of the unit and all of the associated equipment, including but not limited to burners, controls, dampers, valves, and monitoring and recording equipment. Repair and replacement of equipment and the catalyst shall be performed as determined by the inspection. During each annual inspection a sample of the catalyst material shall be collected from the catalyst bed and used to perform a catalyst activity test. The permittee shall maintain a record of the results of each annual inspection and the results of each annual catalyst activity test.

The permittee shall also perform weekly inspections of the external integrity of the catalytic incinerator. Records shall be maintained of the inspections and the date(s) of catalyst replacement, and if only partial, the amount or percent of the total catalyst replaced.

[Authority for Term: OAC rule 3745-77-07(C)(1)]

- (5) Whenever the monitored average temperature of the exhaust gases immediately before the catalyst bed and/or the average temperature difference across the catalyst bed deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
 - a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control

equipment within the acceptable range(s)/limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature of the exhaust gases immediately before the catalyst and the average temperature difference across the catalyst bed immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature ranges are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Hamilton County Department of Environmental Services. The permittee may request revisions to the permitted temperature range(s) based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) of the controlled pollutant(s). In addition, approved revisions to the temperature range(s) will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for Term: OAC rule 3745-77-07(C)(1)]

- (6) The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):
 - a. the measured diameter of each natural draft opening;
 - b. the distance measured from each natural draft opening to each VOC emitting point;
 - c. the total calculated surface area of all natural draft openings and the surface area of the enclosure's four walls, floor, and ceiling;
 - d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
 - e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5 percent of the sum of the surface areas of the enclosure's four walls, floor, and ceiling.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 40 CFR Part 63.829, and 40 CFR 51, Appendix M, Method 204]

- (7) The permittee shall install, operate, and maintain monitoring devices and a recorder that continuously monitor and record the differential pressure between the inside and outside of the permanent total enclosure when the emissions unit is in operation. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals, with any modifications deemed necessary by the permittee.

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

- a. all three-hour blocks of time during which the difference in pressure between the permanent total enclosure and the surrounding areas is not maintained at or above the minimum pressure differential of 0.007 inches of water, as a three-hour average; and
- b. a log or record of downtime for the capture (collection) system when the emissions unit was in operation.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 40 CFR Part 63.829, and 40 CFR 51, Appendix M, Method 204]

- (8) The permittee shall collect and record the following information on a monthly basis for the coating and cleanup materials applied in this emissions unit:
- a. the name and identification number of each coating, ink, and thinner as applied;
 - b. the VOC content of each coating, ink, and thinner as applied, in pounds per gallon;
 - c. the number of gallons of each coating, ink, and thinner employed;
 - d. the uncontrolled VOC emissions from all coatings, inks, and thinners applied, i.e., the summation of the products of "b" x "c";
 - e. the overall control efficiency determined for the catalytic incinerator during the most recent demonstration of compliance;
 - f. the total controlled VOC emissions from all coatings, inks, and thinners applied, i.e., "d" x "e";
 - g. the name and identification of each cleanup material employed;
 - h. the VOC content of each cleanup material, in pounds per gallon;
 - i. the number of gallons of each cleanup material employed;
 - j. the total VOC emissions from all cleanup materials employed, i.e., the summation of the products of "h" x "i", in pounds; and

- k. the total VOC emissions from all coatings, inks, thinners and cleanup materials employed, i.e., “f” + “j”, in pounds.

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(A)(3)]

- (9) The permittee shall keep on-site and readily available the compliance status report required in 40 CFR Section 63.828(a)(5)(i).

[Authority for Term: OAC rules 3745-77-07(C) and 40 CFR 63.828(a)(5)(i)]

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

[Authority for Term: OAC rules 3745-77-07(C) and 40 CFR 63.825(d)]

- (11) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #14-05095: d)(1) through d)(10). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

- (1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart KK, including the following: e)(2) and e(3).

- (2) Start-up, shutdown, and malfunction reports pursuant to 40 CFR Part 63.830(b)(5).

[Authority for Term: OAC rules 3745-77-07(C) and 40 CFR 63.830]

- (3) The permittee shall submit semi-annual summaries of the following records:

- a. all 3-hour blocks of time (when the emissions unit(s) was/were 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 established during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
- b. all 3-hour blocks of time (when the emissions unit(s) was/were in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference established during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
- c. any records of downtime (date and length of time) for the capture (collection) system, the catalytic incinerator, and/or the monitoring equipment when the emissions unit(s) was/were in operation;

- d. a log of the operating time for the capture system, catalytic incinerator, monitoring equipment, and the emissions unit(s); and
- e. all three-hour blocks of time, when the emissions unit was in operation, during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inches of water.

These semi-annual reports shall be submitted by July 31 and January 31, and shall cover the records for the previous calendar quarters.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-21-09(B)(3)(m), 40 CFR Part 63.830(b), and CFR Part 51, Appendix M, Method 204]

- (4) The permittee shall submit annual reports that specify the total VOC emissions from all coatings and cleanup materials from this emissions unit, in tons, and the results of the annual catalyst activity test required in f)(2)a for the previous calendar year. The reports shall be submitted by January 31 of each year.

[Authority for Term: OAC rules 3745-77-07(C)(1)]

- (5) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #14-05095; e)(1) thru e)(4). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

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

a. Emission Limitation:

Volatile Organic Compound (VOC) emissions from the press shall not exceed 2.15 pounds per hour, excluding cleanup materials.

Applicable Compliance Method:

The hourly emissions limitation is based upon the emissions unit's potential to emit. The following equation was used in determining this emissions unit limitation:

$$\{(2.5 \text{ gallons of coating/hr}) \times (4.68 \text{ lbs VOC/gallon of coating})\} + \{(2.5 \text{ gallons of thinner/hr}) \times (6.59 \text{ lbs of VOC/gallon thinner})\} + \{(3.67 \text{ gallons of adhesive/hr}) \times (4.06 \text{ lbs of VOC/gallon of adhesive})\} \times (1 - 0.95 \text{ control/capture efficiency}) = 2.15 \text{ lbs of VOC/hour.}$$

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3)]

b. Emission Limitation

The permittee shall operate and maintain a capture and control system that shall provide not less than a 95 percent reduction, by weight, in the overall VOC and organic Hazardous Air Pollutants (HAP) emissions from the coating line. This shall be accomplished by the use of a Permanent Total Enclosure for capture and a catalytic incinerator for destruction

Applicable Compliance Method:

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

The emission testing shall be conducted within 6 months prior to permit expiration.

The emission testing shall be conducted to demonstrate compliance with the capture efficiency and control efficiency limitations for VOCs and HAPs.

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

Method 1-4, and Method 25 (hourly and control efficiency); and

Method 204 (capture efficiency).

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

The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's 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 may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

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

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

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

The permittee shall use the information from the performance test to determine the oxidizer destruction efficiency, capture system capture efficiency, and the overall organic HAP control efficiency as outlined in 40 CFR 63.825(d)(1).

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-21-09(B)(3)(m), 40 CFR Parts 63.825 and 63.827, and 40 CFR 51, Appendix M, Method 204]

c. Emission Limitation:

Volatile Organic Compound (VOC) emissions from the coatings of the press shall not exceed 9.43 tons per year.

Applicable Compliance Method:

The annual emission limitation is based upon the emissions unit's potential to emit at 8,760 hours of operation per year. The following equation was used in determining this emissions unit's limitation:

$$\{(2.15 \text{ lbs of VOC/hr}) \times (8,760 \text{ hrs/year}) \times (1 \text{ ton}/2000 \text{ lbs})\} = 9.43 \text{ tons of VOC/year.}$$

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(A)(3)]

d. Emission Limitation:

Volatile Organic Compound (VOC) emissions from the cleanup of the press shall not exceed 3.89 tons per year.

Applicable Compliance Method:

Compliance with the annual emission limitation shall be demonstrated through the record keeping requirements found in d)(6).

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(A)(3)]

- (2) Compliance with the operational restrictions in c) of these terms and conditions shall be determined in accordance with the following method(s):

- a. Operational Limitation:

The conversion efficiency of the catalyst shall be at least 90% at a test temperature that is equal to that temperature at which the inlet to the catalyst bed is set.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in this permit. An intent to test notification shall not be required for catalyst activity testing. The procedures for the catalyst activity test shall be conducted in accordance with the manufacturer's recommendations and as required by the appropriate test method.

[Authority for Term: OAC rules 3745-77-07(C)(1)]

- b. Operational Limitation:

The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 in. H₂O), whenever the emissions unit is in operation.

Applicable Compliance Method:

Compliance shall be demonstrated by the information collected and recorded in d)(6)

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 40 CFR Part 63.827, and 40 CFR 51, Appendix M, Method 204]

- c. Operational Limitation:

The acceptable average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit(s) controlled by the catalytic incinerator is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.

Applicable Compliance Method:

Compliance shall be demonstrated by the information collected and recorded in d)(2)

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), and 40 CFR Part 63.827]

- (3) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #14-05095: f)(1) through f)(2). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

- (1) The affected emissions unit(s) is/are in compliance pursuant to the requirements listed in 40 CFR Part 63.825(d)(1)(xi).

[Authority for Term: OAC rules 3745-77-07(C)(1) and 40 CFR Part 63.827]

- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following requirements are as stringent as or more stringent than the requirements contained in Permit to Install #14-05095: g)(1). The requirements contained in the above-referenced Permit to Install are subsumed into the requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying requirements in the Permit to Install.



2. K009, Rotomec 10-Station Press

Operations, Property and/or Equipment Description:

Rotogravure printing press with permanent total enclosure and catalytic oxidizer

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI 14-03773)	<p>Volatile Organic Compound (VOC) emissions from the coatings, inks, thinners and cleanup materials associated with this emissions unit shall not exceed 39.45 tons per rolling 12-month period.</p> <p>See c)(4).</p>
b.	OAC rule 3745-31-05(A)(3) (PTI 14-03773)	<p>VOC emissions shall not exceed 29.3 pounds per hour, excluding cleanup materials.*</p> <p>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).</p> <p>See b)(2)a.-b)(2)e.</p> <p>*The hourly emission limitation is based on the emissions unit's potential to emit. Therefore, there is no hourly record keeping required to demonstrate compliance.</p>
c.	<p>40 CFR, Part 63, Subpart KK (40 CFR 63.820 – 63.831)</p> <p>[In accordance with 40 CFR 63.822, this emissions unit is a rotogravure printing press for packaging at an</p>	<p>See b)(2)a., b., and c.</p> <p>The capture and control requirements specified in 40 CFR Part 63 are the same as or less stringent than those established pursuant to OAC rule 3745-</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	existing product and packaging rotogravure printing operation that is subject to the emission limitations/control measures specified in this section.]	31-05(A)(3).
d.	40 CFR 63.1-15	Table 1 to 40 CFR, Part 63, Subpart KK – Applicability of General Provisions to Subpart KK shows which parts of the General Provisions in 40 CFR 63.1-15 apply.
e.	OAC rule 3745-21-09(Y)(1)(b)	The minimum overall control efficiency specified by this rule is less stringent than the minimum overall control efficiency established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The permittee shall operate and maintain a capture and control system that shall provide not less than a 95 percent reduction, by weight, in the overall VOC and organic Hazardous Air Pollutants (HAP) emissions from the coating line. This shall be accomplished by the use of a Permanent Total Enclosure for capture and a catalytic incinerator for destruction.
- b. In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit(s) controlled by the catalytic incinerator is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.
- c. The permanent total enclosure shall be constructed to totally enclose the application stations, coating reservoirs, and all areas from the application station to the oven and the control device, such that all volatile organic compound emissions are captured, contained, and directed to the catalytic incinerator.
- d. The permanent total enclosure shall be maintained under negative pressure whenever the emissions unit is in operation, and shall be designed and maintained to have an average facial velocity of air through each natural draft opening of at least 200 feet per minute (3,600 m/hr). Compliance with the average facial velocity shall be demonstrated during the compliance test, by either using an air flow monitor or a differential pressure gauge at each natural draft opening, and maintaining the required facial velocity or the corresponding negative pressure. The permanent total enclosure shall meet all of the following criteria if the capture efficiency of the enclosure and control device is to be assumed to be 100%:

- i. Any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point. An equivalent diameter is the diameter of a circle that has the same area as the opening. If the opening is not circular the equivalent diameter (ED) is calculated as follows:

$$ED = (4 \text{ area}/\pi)^{0.5}$$

- ii. The total area of all natural draft openings (A_N) shall not exceed 5 percent of the total surface area of the enclosure (A_T), i.e, the four walls, floor, and ceiling. The natural draft opening to enclosure area ratio (NEAR) is calculated as follows:

$$NEAR = A_N / A_T$$

- iii. The direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity of no less than 200 feet per minute (3,600 m/hr) or a pressure drop of 0.013 mm Hg (0.007 in. H₂O).
- iv. All access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in “b”, shall be completely closed to any air movement during process operations.
- v. All VOC emissions shall be captured and contained for discharge through the control device.

- e. The permanent total enclosure (PTE) serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a permanent total enclosure in 40 CFR, Part 51, Appendix M, Reference Method 204, and shall capture all of the VOC emissions from this emissions unit.

c) Operational Restrictions

- (1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart KK, including the following: c)(3) and c)(5).
- (2) The catalytic incinerator shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The conversion efficiency of the catalyst, as determined in an annual catalyst activity test, shall be at least 90% at a test temperature that is equal to that temperature at which the inlet to the catalyst bed is set. Solvent loading during the catalyst activity test shall be consistent with the test laboratory's normal testing protocol.

[Authority for Term: OAC rule 3745-77-07(A)(1)]

- (3) The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 in. H₂O), whenever the emissions unit is in operation.

[Authority for Term: OAC rules 3745-77-07(A)(1), 3745-31-05(A)(3), 40 CFR Part 63.828(a)(5)]

- (4) The maximum usage rates for this emissions unit shall not exceed the following limitations, per rolling, 12-month period:
- a. Ink: 263,000 gallons;
 - b. Thinner: 263,000 gallons;
 - c. Coating: 526,000 gallons; and
 - d. Cleanup: 10,950 gallons.

[Authority for Term: OAC rules 3745-77-07(A)(1), 3745-31-05(D)]

- (5) Pursuant to 40 CFR Section 63.828(b), and excursion 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 of the emission standard. The operating parameters established pursuant to 40 CFR Section 63.828(a)(4) and (a)(5) are specified in b)(2)b. and b)(2)c. of these terms.

[Authority for Term: OAC rules 3745-77-07(A)(1) and 40 CFR 63.828(b)]

d) **Monitoring and/or Recordkeeping Requirements**

- (1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart KK, including the following: d)(2), d)(3), d)(6), d)(7), d)(9), and d)(10).
- (2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit(s) controlled by the catalytic incinerator is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance. The acceptable average temperature difference across the catalyst bed, for any 3-hour block of time (when the emissions unit(s) is/are in operation), shall not be less than 80 percent of the average temperature difference measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-21-09(B)(3)(I)(iii), and 40 CFR Part 63.828(a)(4)]

- (3) The permittee shall properly operate and maintain continuous temperature monitors and recorder(s) that measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit(s) is/are in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitors and recorder(s) shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:

- a. all 3-hour blocks of time, when the emissions unit(s) controlled by the catalytic incinerator was/were 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 measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
- b. all 3-hour blocks of time, when the emissions unit(s) controlled by the catalytic incinerator was/were in operation, during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance; and
- c. a log or record of the operating time for the capture (collection) system, catalytic incinerator, monitoring equipment, and the associated emissions unit(s).

The permittee may use a temperature chart recorder or equivalent recording device as the log that documents the temperature differential across the catalyst bed. These records shall be maintained at the facility for a period of no less than 3 years.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-21-09(B)(3)(I)(iii), and 40 CFR Part 63828(a)(4)]

- (4) The permittee shall perform a preventative maintenance inspection of the catalytic incinerator on an annual basis to evaluate the performance of the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations, and shall include a physical inspection of the unit and all of the associated equipment, including but not limited to burners, controls, dampers, valves, and monitoring and recording equipment. Repair and replacement of equipment and the catalyst shall be performed as determined by the inspection. During each annual inspection a sample of the catalyst material shall be collected from the catalyst bed and used to perform a catalyst activity test. The permittee shall maintain a record of the results of each annual inspection and the results of each annual catalyst activity test.

The permittee shall also perform weekly inspections of the external integrity of the catalytic incinerator. Records shall be maintained of the inspections and the date(s) of catalyst replacement, and if only partial, the amount or percent of the total catalyst replaced.

[Authority for Term: OAC rule 3745-77-07(C)(1)]

- (5) Whenever the monitored average temperature of the exhaust gases immediately before the catalyst bed and/or the average temperature difference across the catalyst bed deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
 - a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;

- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range(s)/limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature of the exhaust gases immediately before the catalyst and the average temperature difference across the catalyst bed immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature ranges are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Hamilton County Department of Environmental Services. The permittee may request revisions to the permitted temperature range(s) based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) of the controlled pollutant(s). In addition, approved revisions to the temperature range(s) will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for Term: OAC rule 3745-77-07(C)(1)]

- (6) The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):
 - a. the measured diameter of each natural draft opening;
 - b. the distance measured from each natural draft opening to each VOC emitting point;

- c. the total calculated surface area of all natural draft openings and the surface area of the enclosure's four walls, floor, and ceiling;
- d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
- e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5 percent of the sum of the surface areas of the enclosure's four walls, floor, and ceiling.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 40 CFR Part 63.829, and 40 CFR 51, Appendix M, Method 204]

- (7) The permittee shall install, operate, and maintain monitoring devices and a recorder that continuously monitor and record the differential pressure between the inside and outside of the permanent total enclosure when the emissions unit is in operation. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals, with any modifications deemed necessary by the permittee.

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

- a. all three-hour blocks of time during which the difference in pressure between the permanent total enclosure and the surrounding areas is not maintained at or above the minimum pressure differential of 0.007 inches of water, as a three-hour average; and
- b. a log or record of downtime for the capture (collection) system when the emissions unit was in operation.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 40 CFR Part 63.829, and 40 CFR 51, Appendix M, Method 204]

- (8) The permittee shall collect and record the following information on a monthly basis for the coating and cleanup materials applied in this emissions unit:
- a. the name and identification number of each coating, ink, and thinner as applied;
 - b. the VOC content of each coating, ink, and thinner as applied, in pounds per gallon;
 - c. the number of gallons of each coating, ink, and thinner employed;
 - d. the uncontrolled VOC emissions from all coatings, inks, and thinners applied, i.e., the summation of the products of "b" x "c";
 - e. the overall control efficiency determined for the catalytic incinerator during the most recent demonstration of compliance;
 - f. the total controlled VOC emissions from all coatings, inks, and thinners applied, i.e., "d" x "e";

- g. the name and identification of each cleanup material employed;
- h. the VOC content of each cleanup material, in pounds per gallon;
- i. the number of gallons of each cleanup material employed;
- j. the rolling, 12-month summations of the ink, thinner, coating, and cleanup material usage figures;
- k. the total VOC emissions from all cleanup materials employed, i.e., the summation of the products of “h” x “i”, in pounds;
- l. the total VOC emissions from all coatings, inks, thinners and cleanup materials employed, i.e., “f” + “k”, in pounds; and
- m. 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].

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(D)]

- (9) The permittee shall keep on-site and readily available the compliance status report required in 40 CFR Section 63.828(a)(5)(i).

[Authority for Term: OAC rules 3745-77-07(C) and 40 CFR 63.828(a)(5)(i)]

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

[Authority for Term: OAC rules 3745-77-07(C) and 40 CFR 63.825(d)]

- (11) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #14-03773: d)(1) through d)(10). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

- (1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart KK, including the following: e)(2).

- (2) Start-up, shutdown, and malfunction reports pursuant to 63.830(b)(5)

[Authority for Term: OAC rules 3745-77-07(C) and 40 CFR 63.830]

- (3) The permittee shall submit semi-annual summaries of the following records:

- a. all 3-hour blocks of time (when the emissions unit(s) was/were 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 established during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
- b. all 3-hour blocks of time (when the emissions unit(s) was/were in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference established during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
- c. any records of downtime (date and length of time) for the capture (collection) system, the catalytic incinerator, and/or the monitoring equipment when the emissions unit(s) was/were in operation;
- d. a log of the operating time for the capture system, catalytic incinerator, monitoring equipment, and the emissions unit(s); and
- e. all three-hour blocks of time, when the emissions unit was in operation, during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inches of water.

These semi-annual reports shall be submitted by July 31 and January 31, and shall cover the records for the previous calendar quarters.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-21-09(B)(3)(m), 40 CFR Part 63.830(b), and 40 CFR 51, Appendix M, Method 204]

- (4) The permittee shall submit annual reports that specify the total VOC emissions from all coatings and cleanup materials from this emissions unit, in tons, and the results of the annual catalyst activity test required in f)(2)a. for the previous calendar year. The reports shall be submitted by January 31 of each year.

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(D)]

- (5) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #14-03773; e)(1) thru e)(4). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

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

- a. Emission Limitation:

Volatile Organic Compound (VOC) emissions from the press shall not exceed 29.3 pounds per hour, excluding cleanup materials.

Applicable Compliance Method:

The hourly emission limitation is based upon the emissions unit's potential to emit. The following equation was used in determining this emissions unit limitation:

$$\{[(72 \text{ gallons of ink and thinner/hr}) \times (6.88 \text{ lbs of VOC/gallon of ink and thinner combined})] + [(18 \text{ gallons of laminate/hr}) \times (4.06 \text{ lbs of VOC/gallon of laminate})] + [(2.0 \text{ gallons of catalyst/hr}) \times (8.58 \text{ lbs of VOC/gallon of catalyst})]\} \times (1 - 0.95 \text{ control/capture efficiency}) = 29.3 \text{ lbs of VOC/hour.}$$

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3)]

b. Emission Limitation

The permittee shall operate and maintain a capture and control system that shall provide not less than a 95 percent reduction, by weight, in the overall VOC and organic Hazardous Air Pollutants (HAP) emissions from the coating line. This shall be accomplished by the use of a Permanent Total Enclosure for capture and a catalytic incinerator for destruction

Applicable Compliance Method:

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

The emission testing shall be conducted within 6 months prior to permit expiration.

The emission testing shall be conducted to demonstrate compliance with the capture efficiency and control efficiency limitations for VOCs and HAPs.

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

Method 1-4, and Method 25 (hourly and control efficiency); and

Method 204 (capture efficiency).

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

The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's 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 may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

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

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

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

The permittee shall use the information from the performance test to determine the oxidizer destruction efficiency, capture system capture efficiency, and the overall organic HAP control efficiency as outlined in 40 CFR 63.825(d)(1).

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-21-09(B)(3)(m), 40 CFR Parts 63.825 and 63.827, and 40 CFR 51, Appendix M, Method 204]

c. Emission Limitation:

Volatile Organic Compound (VOC) emissions from the coatings, inks, thinners and cleanup materials associated with this emission unit shall not exceed 39.45 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be demonstrated through the record keeping requirements found in d)(7)m.

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(D)]

- (2) Compliance with the operational restrictions in c) of these terms and conditions shall be determined in accordance with the following method(s):

- a. Operational Limitation:

The conversion efficiency of the catalyst shall be at least 90% at a test temperature that is equal to that temperature at which the inlet to the catalyst bed is set.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in this permit. An intent to test notification shall not be required for catalyst activity testing. The procedures for the catalyst activity test shall be conducted in accordance with the manufacturer's recommendations and as required by the appropriate test method.

[Authority for Term: OAC rules 3745-77-07(C)(1)]

- b. Operational Limitation:

The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 in. H₂O), whenever the emissions unit is in operation.

Applicable Compliance Method:

Compliance shall be demonstrated by the information collected and recorded in d)(7)

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 40 CFR Part 63.827, and 40 CFR 51, Appendix M, Method 204]

- c. Operational Limitation:

The acceptable average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit(s) controlled by the catalytic incinerator is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.



Applicable Compliance Method:

Compliance shall be demonstrated by the information collected and recorded in d)(3)

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), and 40 CFR Part 63 Subpart KK]

d. Operational Limitation

The maximum usage rates for this emissions unit shall not exceed the following limitations, per rolling, 12-month period:

Ink: 263,000 gallons;

Thinner: 263,000 gallons;

Coating: 526,000 gallons; and

Cleanup: 10,950 gallons.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be demonstrated through the record keeping requirements found in d)(7)j

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(D)]

- (3) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #14-03773: f)(1) through f)(2). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

- (1) The affected emissions unit(s) is/are in compliance pursuant to the requirements listed in 40 CFR Part 63.825(d)(1)(xi).

[Authority for Term: OAC rules 3745-77-07(C)(1) and 40 CFR Part 63.827]

- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following requirements are as stringent as or more stringent than the requirements contained in Permit to Install #14-05095: g)(1). The requirements contained in the above-referenced Permit to Install are subsumed into the requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying requirements in the Permit to Install.



3. K010, Combi Laminator

Operations, Property and/or Equipment Description:

Extruder/rotogravure flexible packaging laminator with permanent total enclosure and catalytic oxidizer

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operations(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 14-05095)	Volatile Organic Compound (VOC) emissions shall not exceed 2.15 pounds per hour, excluding cleanup materials.* VOC emissions from coatings employed in this emission unit shall not exceed 9.43 tons per year. VOC emissions from the cleanup materials employed at this emission unit shall not exceed 3.89 tons per year. See b)(2)a.-b)(2)e. The requirements of this rule also include compliance with the applicable requirements of 40 CFR Part 63, Subpart KK. *The hourly emission limitation is based on the emissions unit's potential to emit. Therefore, there is no hourly record keeping required to demonstrate compliance.
b.	40 CFR, Part 63, Subpart KK (40 CFR 63.820 – 63.831) [In accordance with 40 CFR 63.822, this emissions unit as part of its	See b)(2)a., b., and c. The capture and control requirements specified in 40 CFR Part 63 are the same as or less stringent than those



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	rotogravure flexible packaging laminator operation at an existing product and packaging rotogravure printing operation that is subject to the emission limitations/control measures specified in this section.]	established pursuant to OAC rule 3745-31-05(A)(3)
c.	40 CFR 63.1-15	Table 1 to 40 CFR, Part 63, Subpart KK – Applicability of General Provisions to Subpart KK shows which parts of the General Provisions in 40 CFR 63.1-15 apply.
d.	OAC rule 3745-21-09(Y)(1)(b)	The minimum overall control efficiency specified by this rule is less stringent than the minimum overall control efficiency established pursuant to OAC rule 3745-31-05(A)(3).

(2) Additional Terms and Conditions

- a. The permittee shall operate and maintain a capture and control system that shall provide not less than a 95 percent reduction, by weight, in the overall VOC and organic Hazardous Air Pollutants (HAP) emissions from the coating line. This shall be accomplished by the use of a Permanent Total Enclosure for capture and a catalytic incinerator for destruction.
- b. In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit(s) controlled by the catalytic incinerator is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.
- c. The permanent total enclosure shall be constructed to totally enclose the application stations, coating reservoirs, and all areas from the application station to the oven and the control device, such that all volatile organic compound emissions are captured, contained, and directed to the catalytic incinerator.
- d. The permanent total enclosure shall be maintained under negative pressure whenever the emissions unit is in operation, and shall be designed and maintained to have an average facial velocity of air through each natural draft opening of at least 200 feet per minute (3,600 m/hr). Compliance with the average facial velocity shall be demonstrated during the compliance test, by either using an air flow monitor or a differential pressure gauge at each natural draft opening, and maintaining the required facial velocity or the corresponding negative pressure. The permanent total enclosure shall meet all of the following

criteria if the capture efficiency of the enclosure and control device is to be assumed to be 100%:

- i. Any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point. An equivalent diameter is the diameter of a circle that has the same area as the opening. If the opening is not circular the equivalent diameter (ED) is calculated as follows:

$$ED = (4 \text{ area} / \pi)^{0.5}$$

- ii. The total area of all natural draft openings (A_N) shall not exceed 5 percent of the total surface area of the enclosure (A_T), i.e, the four walls, floor, and ceiling. The natural draft opening to enclosure area ratio (NEAR) is calculated as follows:

$$NEAR = A_N / A_T$$

- iii. The direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity of no less than 200 feet per minute (3,600 m/hr) or a pressure drop of 0.013 mm Hg (0.007 in. H₂O).
- iv. All access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in "b", shall be completely closed to any air movement during process operations.
- v. All VOC emissions shall be captured and contained for discharge through the control device.

- e. The permanent total enclosure (PTE) serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a permanent total enclosure in 40 CFR, Part 51, Appendix M, Reference Method 204, and shall capture all of the VOC emissions from this emissions unit.

c) Operational Restrictions

- (1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart KK, including the following: c)(3) and c)(4).
- (2) The catalytic incinerator shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals. The conversion efficiency of the catalyst, as determined in an annual catalyst activity test, shall be at least 90% at a test temperature that is equal to that temperature at which the inlet to the catalyst bed is set. Solvent loading during the catalyst activity test shall be consistent with the test laboratory's normal testing protocol.

[Authority for Term: OAC rule 3745-77-07(A)(1)]

- (3) The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 in. H₂O), whenever the emissions unit is in operation.

[Authority for Term: OAC rules 3745-77-07(A)(1), 3745-31-05(A)(3), 40 CFR Part 63.828(a)(5)]

- (4) Pursuant to 40 CFR Section 63.828(b), and excursion 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 of the emission standard. The operating parameters established pursuant to 40 CFR Section 63.828(a)(4) and (a)(5) are specified in b)(2)b. and b)(2)c. of these terms.

[Authority for Term: OAC rules 3745-77-07(A)(1) and 40 CFR 63.828(b)]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart KK, including the following: d)(2), d)(3), d)(6), d)(7), d)(9), and d)(10).
- (2) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit(s) controlled by the catalytic incinerator is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance. The acceptable average temperature difference across the catalyst bed, for any 3-hour block of time (when the emissions unit(s) is/are in operation), shall not be less than 80 percent of the average temperature difference measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-21-09(B)(3)(I)(iii), and 40 CFR Part 63.828(a)(4)]

- (3) The permittee shall properly operate and maintain continuous temperature monitors and recorder(s) that measure and record(s) the temperature immediately upstream and downstream of the incinerator's catalyst bed when the emissions unit(s) is/are in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitors and recorder(s) shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:
 - a. all 3-hour blocks of time, when the emissions unit(s) controlled by the catalytic incinerator was/were 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 measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
 - b. all 3-hour blocks of time, when the emissions unit(s) controlled by the catalytic incinerator was/were in operation, during which the average temperature

difference across the catalyst bed was less than 80 percent of the average temperature difference measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance; and

- c. a log or record of the operating time for the capture (collection) system, catalytic incinerator, monitoring equipment, and the associated emissions unit(s).

The permittee may use a temperature chart recorder or equivalent recording device as the log that documents the temperature differential across the catalyst bed. These records shall be maintained at the facility for a period of no less than 3 years.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-21-09(B)(3)(I)(iii), and 40 CFR Part 63.828.(a)(4)]

- (4) The permittee shall perform a preventative maintenance inspection of the catalytic incinerator on an annual basis to evaluate the performance of the catalyst bed. Each inspection shall consist of internal and visual inspections in accordance with the manufacturer's recommendations, and shall include a physical inspection of the unit and all of the associated equipment, including but not limited to burners, controls, dampers, valves, and monitoring and recording equipment. Repair and replacement of equipment and the catalyst shall be performed as determined by the inspection. During each annual inspection a sample of the catalyst material shall be collected from the catalyst bed and used to perform a catalyst activity test. The permittee shall maintain a record of the results of each annual inspection and the results of each annual catalyst activity test.

The permittee shall also perform weekly inspections of the external integrity of the catalytic incinerator. Records shall be maintained of the inspections and the date(s) of catalyst replacement, and if only partial, the amount or percent of the total catalyst replaced.

[Authority for Term: OAC rule 3745-77-07(C)(1)]

- (5) Whenever the monitored average temperature of the exhaust gases immediately before the catalyst bed and/or the average temperature difference across the catalyst bed deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
 - a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range(s)/limit(s) specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons

for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- a. a description of the corrective action;
- b. the date corrective action was completed;
- c. the date and time the deviation ended;
- d. the total period of time (in minutes) during which there was a deviation;
- e. the temperature of the exhaust gases immediately before the catalyst and the average temperature difference across the catalyst bed immediately after the corrective action was implemented; and
- f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature ranges are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Hamilton County Department of Environmental Services. The permittee may request revisions to the permitted temperature range(s) based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) of the controlled pollutant(s). In addition, approved revisions to the temperature range(s) will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for Term: OAC rule 3745-77-07(C)(1)]

- (6) The permittee shall measure, document/calculate, and maintain a permanent record of the following information for the permanent total enclosure, which may be the same record documented during the compliance test(s):
 - a. the measured diameter of each natural draft opening;
 - b. the distance measured from each natural draft opening to each VOC emitting point;
 - c. the total calculated surface area of all natural draft openings and the surface area of the enclosure's four walls, floor, and ceiling;
 - d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
 - e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosure is not more than 5 percent of the sum of the surface areas of the enclosure's four walls, floor, and ceiling.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 40 CFR Part 63.829, and 40 CFR 51, Appendix M, Method 204]

- (7) The permittee shall install, operate, and maintain monitoring devices and a recorder that continuously monitor and record the differential pressure between the inside and outside of the permanent total enclosure when the emissions unit is in operation. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals, with any modifications deemed necessary by the permittee.

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

- a. all three-hour blocks of time during which the difference in pressure between the permanent total enclosure and the surrounding areas is not maintained at or above the minimum pressure differential of 0.007 inches of water, as a three-hour average; and
- b. a log or record of downtime for the capture (collection) system when the emissions unit was in operation.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 40 CFR Part 63.829, and 40 CFR 51, Appendix M, Method 204]

- (8) The permittee shall collect and record the following information on a monthly basis for the coating and cleanup materials applied in this emissions unit:
- a. the name and identification number of each coating, ink, and thinner as applied;
 - b. the VOC content of each coating, ink, and thinner as applied, in pounds per gallon;
 - c. the number of gallons of each coating, ink, and thinner employed;
 - d. the uncontrolled VOC emissions from all coatings, inks, and thinners applied, i.e., the summation of the products of "b" x "c";
 - e. the overall control efficiency determined for the catalytic incinerator during the most recent demonstration of compliance;
 - f. the total controlled VOC emissions from all coatings, inks, and thinners applied, i.e., "d" x "e";
 - g. the name and identification of each cleanup material employed;
 - h. the VOC content of each cleanup material, in pounds per gallon;
 - i. the number of gallons of each cleanup material employed;
 - j. the total VOC emissions from all cleanup materials employed, i.e., the summation of the products of "h" x "i", in pounds; and

- k. the total VOC emissions from all coatings, inks, thinners and cleanup materials employed, i.e., “f” + “j”, in pounds.

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(A)(3)]

- (9) The permittee shall keep on-site and readily available the compliance status report required in 40 CFR Section 63.828(a)(5)(i).

[Authority for Term: OAC rules 3745-77-07(C) and 40 CFR 63.828(a)(5)(i)]

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

[Authority for Term: OAC rules 3745-77-07(C) and 40 CFR 63.825(d)]

- (11) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #14-05095: d)(1) through d)(10). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

- (1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 63, Subpart KK, including the following: e)(2) and e(3).

- (2) Start-up, shutdown, and malfunction reports pursuant to 40 CFR Part 63.830(b)(5).

[Authority for Term: OAC rules 3745-77-07(C) and 40 CFR 63.830]

- (3) The permittee shall submit semi-annual summaries of the following records:

- a. all 3-hour blocks of time (when the emissions unit(s) was/were 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 established during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;

- b. all 3-hour blocks of time (when the emissions unit(s) was/were in operation) during which the average temperature difference across the catalyst bed was less than 80 percent of the average temperature difference established during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;

- c. any records of downtime (date and length of time) for the capture (collection) system, the catalytic incinerator, and/or the monitoring equipment when the emissions unit(s) was/were in operation;

- d. a log of the operating time for the capture system, catalytic incinerator, monitoring equipment, and the emissions unit(s); and
- e. all three-hour blocks of time, when the emissions unit was in operation, during which the permanent total enclosure was not maintained at the minimum pressure differential of 0.007 inches of water.

These semi-annual reports shall be submitted by July 31 and January 31, and shall cover the records for the previous calendar quarters.

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-21-09(B)(3)(m), 40 CFR Part 63.830(b), and 40 CFR 51, Appendix M, Method 204]

- (4) The permittee shall submit annual reports that specify the total VOC emissions from all coatings and cleanup materials from this emissions unit, in tons, and the results of the annual catalyst activity test required in f)(2)a for the previous calendar year. The reports shall be submitted by January 31 of each year.

[Authority for Term: OAC rules 3745-77-07(C)(1)]

- (5) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #14-05095; e)(1) thru e)(4). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

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

a. Emission Limitation:

Volatile Organic Compound (VOC) emissions from the press shall not exceed 2.15 pounds per hour, excluding cleanup materials.

Applicable Compliance Method:

The hourly emission limitation is based upon the emissions unit's potential to emit. The following equation was used in determining this emissions unit limitation:

$$\{(2.5 \text{ gallons of coating/hr}) \times (4.68 \text{ lbs of VOC/gallon coating})\} + \{(2.5 \text{ gallons thinner/hr}) \times (6.59 \text{ lbs of VOC/gallon of thinner})\} + \{(3.67 \text{ gallons of adhesive/hr}) \times (4.06 \text{ lbs of VOC/gallon of adhesive})\} \times (1 - 0.95 \text{ control/capture efficiency}) = 2.15 \text{ lbs VOC/hour.}$$

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3)]

b. Emission Limitation

The permittee shall operate and maintain a capture and control system that shall provide not less than a 95 percent reduction, by weight, in the overall VOC and Hazardous Air Pollutants (HAP) emissions from the coating line. This shall be accomplished by the use of a Permanent Total Enclosure for capture and a catalytic incinerator for destruction

Applicable Compliance Method:

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

The emission testing shall be conducted within 6 months prior to permit expiration.

The emission testing shall be conducted to demonstrate compliance with the capture efficiency and control efficiency limitations for VOCs and HAPs.

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

Method 1-4, and Method 25 (hourly and control efficiency); and

Method 204 (capture efficiency).

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

The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's 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 may approve the use of the alternative if such approval does not contravene any other applicable requirement.)

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

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

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

The permittee shall use the information from the performance test to determine the oxidizer destruction efficiency, capture system capture efficiency, and the overall organic HAP control efficiency as outlined in 40 CFR 63.825(d)(1).

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 3745-21-09(B)(3)(m), 40 CFR Parts 63.825 and 63.827, and 40 CFR 51, Appendix M, Method 204]

c. Emission Limitation:

Volatile Organic Compound (VOC) emissions from the coatings of the press shall not exceed 9.43 tons per year.

Applicable Compliance Method:

The annual emission limitation is based upon the emissions unit's potential to emit at 8,760 hours of operation per year. The following equation was used in determining this emissions unit limitation:

$$\{(2.15 \text{ lbs of VOC/hr}) \times (8,760 \text{ hrs/year}) \times (1 \text{ ton}/2000 \text{ lbs})\} = 9.43 \text{ tons of VOC/year}$$

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(A)(3)]

d. Emission Limitation:

Volatile Organic Compound (VOC) emissions from the cleanup of the press shall not exceed 3.89 tons per year.

Applicable Compliance Method:

Compliance with the annual emissions limitation shall be demonstrated through the record keeping requirements found in d)(7).

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(A)(3)]

- (2) Compliance with the operational restrictions in c) of these terms and conditions shall be determined in accordance with the following method(s):

- a. Operational Limitation:

The conversion efficiency of the catalyst shall be at least 90% at a test temperature that is equal to that temperature at which the inlet to the catalyst bed is set.

Applicable Compliance Method:

The permittee shall conduct, or have conducted, catalyst activity testing using the catalyst sample collected during the annual inspection described in this permit. An intent to test notification shall not be required for catalyst activity testing. The procedures for the catalyst activity test shall be conducted in accordance with the manufacturer's recommendations and as required by the appropriate test method.

[Authority for Term: OAC rules 3745-77-07(C)(1)]

- b. Operational Limitation:

The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 in. H₂O), whenever the emissions unit is in operation.

Applicable Compliance Method:

Compliance shall be demonstrated by the information collected and recorded in d)(7).

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), 40 CFR Part 63.827, and 40 CFR 51, Appendix M, Method 204]

- c. Operational Limitation:

The acceptable average temperature of the exhaust gases immediately before the catalyst bed, for any 3-hour block of time when the emissions unit(s) controlled by the catalytic incinerator is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance.

Applicable Compliance Method:

Compliance shall be demonstrated by the information collected and recorded in d)(2).

[Authority for Term: OAC rules 3745-77-07(C)(1), 3745-31-05(A)(3), and 40 CFR Part 63 Subpart KK]

- (3) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #14-05095: f)(1) through f)(2). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

- (1) The affected emissions unit(s) is/are in compliance pursuant to the requirements listed in 40 CFR Part 63.825(d)(1)(xi).

[Authority for Term: OAC rules 3745-77-07(C)(1) and 40 CFR Part 63.827]

- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following requirements are as stringent as or more stringent than the requirements contained in Permit to Install #14-05095: g)(1). The requirements contained in the above-referenced Permit to Install are subsumed into the requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying requirements in the Permit to Install.

4. P012, Lightnin Ink Mixer #1

Operations, Property and/or Equipment Description:

Lightning Ink Mixer

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 14-03182)	Organic Compound (OC) emissions from this emissions unit shall not exceed 7.5 pounds per hour*. See b)(2)a, c)(1),.c)(2) and c)(3). *The hourly emission limitation is based on the emissions unit’s potential to emit. Therefore, there is no hourly record keeping required to demonstrate compliance.
b.	OAC rule 3745-21-07(G)(2)	Exempt, due to Ohio Supreme Court decision of July 11, 2001 and the Ohio EPA permitting call held July 18, 2002.

(2) Additional Terms and Conditions

a. The permittee shall use tightly fitted covers while ink mixing is occurring.

b. On February 18, 2008, OAC rule 3745-21-07 was revised in its entirety; therefore, the 21-07 rule that was in effect prior to this date is no longer part of the State regulations. On April 4, 2008, the rule revision was submitted to the U.S. EPA as a revision to Ohio’s State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-07, the requirement to comply with the previous 21-07 rule provisions still exists as part of the federally-approved SIP for Ohio. The following term and condition shall become void after U.S. EPA approves the rule revision: b)(1)b.

c) Operational Restrictions

- (1) The maximum hourly production rate for this emissions unit shall not exceed 1,000 pounds of ink.

[Authority for Term: OAC rules 3745-77-07(A)(1) and 3745-31-05(A)(3)]

- (2) The maximum daily production rate for this emissions unit shall not exceed 5,000 pounds of ink.

[Authority for Term: OAC rules 3745-77-07(A)(1) and 3745-31-05(A)(3)]

- (3) The maximum annual production rate for this emissions unit shall not exceed 600 tons of ink.

[Authority for Term: OAC rules 3745-77-07(A)(1) and 3745-31-05(A)(3)]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information for inks mixed in this emissions unit:

- a. the name and identification number of each ink mixed;
- b. the number of pounds of each ink mixed per day;
- c. the total daily hours the ink mixer was in operation;
- d. the average amount of ink mixed per hour, in pounds, i.e. "c"/"d" for all inks mixed; and
- e. the year-to-date total for the number of tons of ink mixed per year.

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(A)(3)]

- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install #14-03182: d)(1). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install

e) Reporting Requirements

- (1) The permittee shall submit semi-annual deviation (excursion) reports that identify the following:

- a. any exceedance of the hourly production rate limitation;
- b. any exceedance of the daily production rate limitation; or

- c. any exceedance of the annual production rate limitation.

These semi-annual reports shall be submitted by July 31 and January 31, and shall cover the records for the previous calendar quarters.

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(A)(3)]

- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install #14-03182; e)(1). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install

f) **Testing Requirements**

- (1) Compliance with the emission limitation(s) and operational restrictions in b) and c) of these terms and conditions shall be determined in accordance with the following method(s):

- a. **Emission Limitation:**

Organic Compound (OC) emissions from the ink mixer shall not exceed 7.5 pounds per hour.

Applicable Compliance Method

The hourly emission limitation was based on the emissions unit's potential to emit. The potential to emit was based on the maximum hourly production rate and the worse case ink (highest solvent content). The following equation was used in determining this limitation:

$$(1000 \text{ lbs/hr}) \times (0.75 \text{ solvent content}) \times (0.01 \text{ evaporation rate}^*) = 7.5 \text{ lbs OC/hr}$$

*The emission factor of 1% 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.

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(A)(3)]

- b. **Operational Limitations:**

The maximum hourly production rate for this emissions unit shall not exceed 1,000 pounds of ink.

The maximum daily production rate for this emissions unit shall not exceed 5,000 pounds of ink.

The maximum annual production rate for this emissions unit shall not exceed 600 tons of ink.

Applicable Compliance Method:

Compliance with the operational limitations shall be demonstrated by the record keeping requirements found in d)(1).

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05(A)(3)]

- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install #14-03182: f)(1). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.
- g) Miscellaneous Requirements
- (1) None.

5. P014, Schold Ink Mixer #3

Operations, Property and/or Equipment Description:

10 hp Schold high-shear dispersion ink mixer with drum seal cover for mixing as-applied printing inks in 55-gallon drums

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01 (PTI number P0106673 issued on 8/3/2010)	Emissions of volatile organic compounds (VOC) shall not exceed 7.5 pounds per hour or 4.50 tons per year (TPY) from ink mixing. See b)(2)a. through b)(2)c. See b)(2)d.
b.	OAC rule 3745-31-05(C), as effective 12/01/06 (PTI number P0106673 issued on 8/3/2010)	See b)(2)e.
c.	OAC rule 3745-21-07(G)	Exempt, due to Ohio Supreme Court decision of July 11, 2001 and the Ohio EPA permitting call held July 18, 2002.

(2) Additional Terms and Conditions

a. The permittee shall use a tight-fitting drum seal cover on this emissions unit to minimize solvent-air interface and evaporation.

b. The maximum VOC content of the inks mixed in this emissions unit shall not exceed 75% by weight.

c. The maximum annual ink production from this emissions unit shall not exceed 600 tons per year.

- d. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants less than 10 tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emissions limits/control measures no longer apply.
- e. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

Permit to Install P0106673 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

- i. limiting the annual ink production to 600 tons per year;
- ii. limiting the VOC content in the inks mixed to 75% by weight;
- iii. the use of a tight-fitting drum seal cover to minimize the solvent-air interface and evaporation; and
- iv. VOC emissions from this emissions unit shall not exceed 4.50 TPY.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information on a monthly basis for this emissions unit:

- a. the amount of ink produced, in tons; and
- b. the maximum VOC content of the inks mixed.

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05]

- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following monitoring and record keeping requirements are as stringent as or more stringent than the monitoring and record keeping requirements contained in Permit to Install # P0106673 issued on 8/3/2010: d)(1). The monitoring and record keeping requirements contained in the above-referenced Permit to Install are subsumed into the monitoring and record keeping requirements of this operating permit, so that compliance with these requirements

constitutes compliance with the underlying monitoring and record keeping requirements in the Permit to Install.

e) Reporting Requirements

(1) The permittee shall provide written notification to the Hamilton County Department of Environmental Services that identify;

- a. any exceedance of the annual ink production limitation; and
- b. any exceedance of the maximum VOC content limitation in the inks mixed.

The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 45 days after the exceedance or deviation occurs.

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05]

(2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following reporting requirements are as stringent as or more stringent than the reporting requirements contained in Permit to Install # P0106673 issued 8/3/2010; e)(1). The reporting requirements contained in the above-referenced Permit to Install are subsumed into the reporting requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying reporting requirements in the Permit to Install.

f) Testing Requirements

(1) Compliance with the emission limitation(s) in b)(1)a of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation

Emissions of volatile organic compounds (VOC) shall not exceed 7.5 pounds per hour from ink mixing.

Applicable Compliance Method

If required, compliance with the hourly VOC emissions limitation shall be demonstrated by Method 25 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

The hourly VOC emission limitation was calculated based on information submitted by the permittee in the Application for PTI 14-06004, issued 1/31/2008, considering the worst case ink VOC content and a VOC loss factor from the Air & Waste Management Association Air Pollution Engineering Manual, Chapter 12, 1992:

$1000 \text{ lbs ink mixed/hr} \times 0.75 \text{ lb solvent (VOC)/lb ink mixed} \times 0.01 \text{ lb VOC lost/lb solvent (VOC)}$, for mixer with tight-fitting drum seal cover = 7.5 lbs VOC per hour

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05]

b. Emission Limitation and voluntary restriction

Emissions of volatile organic compounds (VOC) shall not exceed 4.50 tons per year (TPY) from ink mixing.

Applicable Compliance Method

Compliance with the annual VOC emissions limitation and voluntary restriction shall be demonstrated by calculating, for each ink mixed, the actual annual VOC emissions, and summing the VOC emissions totals. The actual annual VOC emissions for each ink shall be calculated by multiplying the actual amount of ink mixed, in tons, by the actual solvent (VOC) content % by weight, in tons solvent (VOC) per ton, by the VOC loss factor for a mixer with a tight-fitting drum seal cover, in tons VOC lost/ton solvent (VOC) such that the total equals TPY VOC.

The annual VOC emission limitation and voluntary restriction was calculated based on information submitted by the permittee in the Application for PTI 14-06004, issued 1/31/2008, considering the annual ink production limit, the worst case ink VOC content, and a VOC loss factor from the Air & Waste Management Association Air Pollution Engineering Manual, Chapter 12, 1992:

$600 \text{ tons ink mixed/yr} \times 0.75 \text{ ton solvent (VOC)/ton ink mixed} \times 0.01 \text{ ton VOC lost/ton solvent (VOC)}$, for mixer with tight-fitting drum seal cover = 4.50 TPY VOC.

[Authority for Term: OAC rules 3745-77-07(C)(1) and 3745-31-05]

- (2) Pursuant to OAC Rule 3745-77-07(A)(3)(a)(ii), the following testing requirements are as stringent as or more stringent than the testing requirements contained in Permit to Install # P0106673 issued 8/3/2010: f)(1). The testing requirements contained in the above-referenced Permit to Install are subsumed into the testing requirements of this operating permit, so that compliance with these requirements constitutes compliance with the underlying testing requirements in the Permit to Install.

g) Miscellaneous Requirements

- (1) The original (first issue) Permit to Install for emissions unit P014 was PTI 14-6004. PTI 14-6004 was Administratively Modified by Permit to Install P0106673 issued 8/3/2010.