



State of Ohio Environmental Protection Agency

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2/22/2010

Greg Riekhof  
B-Way Corporation  
8200 Broadwell Road  
Cincinnati, OH 45244

Certified Mail

Facility ID: 1431340460  
Permit Number: P0099713  
County: Hamilton

RE: PRELIMINARY PROPOSED AIR POLLUTION TITLE V PERMIT  
Permit Type: Renewal

Dear Permit Holder:

Enclosed is the Ohio EPA Preliminary Proposed Title V permit that was issued in draft form on 12/29/2009. The comment period for the Draft permit has ended. We are now ready to submit this permit to U.S. EPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written, you now have the opportunity to raise your concerns. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.ohio.gov/dapc> in Microsoft Word and Adobe Acrobat format. Comments will be accepted as a marked-up copy of the permit or in narrative format. Any comments must be sent to the following within 14 days of your receipt of this letter.

Andrew Hall  
Permit Review/Development Section  
Ohio EPA, DAPC  
50 West Town Street, Suite 700  
Columbus, Ohio 43215

and Hamilton County Dept. of Environmental Services  
250 William Howard Taft Pkwy.  
Cincinnati, OH 45219-2660

If you believe that it is necessary to have an informal conference with us, then, as part of your written comments, you should request a conference concerning the written comments.

If comments are not submitted within 14 days of your receipt of this letter, we will forward the proposed permit to U.S. EPA for approval. All comments received will be carefully considered before proceeding with the proposed permit.

Sincerely,

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

Cc: Hamilton County Dept. of Environmental Services





**State of Ohio Environmental Protection Agency  
Division of Air Pollution Control**

## **PRELIMINARY PROPOSED**

### **Air Pollution Title V Permit for B-Way Corporation**

Facility ID: 1431340460

Permit Number: P0099713

Permit Type: Renewal

Issued: 2/22/2010

Effective: To be entered upon final issuance

Expiration: To be entered upon final issuance





State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Air Pollution Title V Permit**  
for  
B-Way Corporation

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State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Preliminary Proposed Title V Permit**

**Permit Number:** P0099713

**Facility ID:** 1431340460

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

## Authorization

Facility ID: 1431340460

Facility Description: Metal Can Coating and Manufacturing

Application Number(s): A0031417, A0031418, A0031419, A0031420, A0037588

Permit Number: P0099713

Permit Description: Title V Operating Permit Renewal

Permit Type: Renewal

Issue Date: 2/22/2010

Effective Date: To be entered upon final issuance

Expiration Date: To be entered upon final issuance

Superseded Permit Number: P0099712

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

B-Way Corporation  
8200 Broadwell Road  
Cincinnati, OH 45244

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



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Preliminary Proposed Title V Permit**

**Permit Number:** P0099713

**Facility ID:** 1431340460

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

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

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

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

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

- (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.



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## **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 facility is subject to the following federally enforceable synthetic minor limitation to avoid applicability of the Metal Can Surface Coating NESHAP 40 CFR Part 63, Subpart KKKK: These facility wide emission limitations were established in PTI 14-06015.

a) The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from the entire facility, more specifically, emissions units K007 (Litho Line 1, Conventional Printing Press with Coater), K008 (Litho Line 2, Conventional Printing Press with Coater), K028 (Can Line 2, Side Seam Stripe Applicator), K029 (Can Line 3, Side Seam Stripe Applicator), K030 (Can Line 1, Side Seam Stripe Applicator), K031 (Can Line 4, Side Seam Stripe Applicator), K033 (Can Line 5, Side Seam Stripe Applicator), K054 (Can Line 6, Side Seam Stripe Applicator), K056 (Can Line 7, Side Seam Stripe Applicator), K057 (Four Color UV Printing and Coating Line PC-8), K058 (Three Color UV Press and Coating Line PC-9), K049 (UV 1, Printing Press with Coater), K052 (UV 2, Printing Press with Coater), K041 (Conventional Coater 2), K044 (Conventional Coater 5), K046 (Conventional Coater 8), K050 (Conventional Coater 9 with Incinerator), K051 (Conventional Coater 10 with Incinerator) and all de minimus units (as defined in OAC rule 3745-15-05) and units exempt from the requirement to obtain a permit-to-install pursuant to OAC rule 3745-31-03, combined, shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs. Compliance with the above limitations shall be based on a rolling, 12-month summation.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(D))

b) The permittee shall collect and record the following information each month for the emissions units identified in a) above:

- (1) the name and identification number of each coating employed;
- (2) the individual Hazardous Air Pollutant (HAP)\* content for each HAP of each coating, in pounds of individual HAP per gallon of coating, as applied;
- (3) the total combined HAP content of each coating in pounds of combined HAPs per gallon of coating, as applied [sum all the individual HAP contents from b)(2)];
- (4) the number of gallons of each coating employed;
- (5) the name and identification of each cleanup material employed;
- (6) the individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied;
- (7) the total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from b)(6)];
- (8) the number of gallons of each cleanup material employed [the total number of gallons of each cleanup material employed less the number of gallons of each cleanup material collected for reuse and disposal];



- (9) the total individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons per month [for each HAP the sum of b)(2) times b)(4) times the emissions factor or overall control efficiency\*\* (if applicable) for each coating plus the sum of b)(6) times b)(8) for each cleanup material plus individual HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- (10) the total combined HAP emissions from all coatings and cleanup materials employed, in pounds or tons per month [the sum of b)(3) times b)(4) times the emission factor or overall control efficiency\*\* (if applicable) for each coating plus the sum of b)(7) times b)(8) for each cleanup material plus combined HAP emissions from any de minimis, registration status and/or permit exempt emissions unit at the facility];
- (11) the updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- (12) the updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on an individual emissions unit basis.

\*\*Overall control efficiency shall be from the most recent performance test that demonstrated that the emissions unit was in compliance.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D))

- c) The permittee shall submit quarterly deviation (excursion) reports that identify the following information:
  - a. all exceedances of the rolling, 12-month individual HAP emission limitation for each HAP for all the coatings, thinners, additives, and cleanup materials employed; and
  - b. all exceedances of the rolling, 12-month total combined HAPs emission limitation for all the coatings, thinners, additives, and cleanup materials employed.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D))

- d) Compliance with the emission limitations in a) of these terms and conditions shall be determined in accordance with the following method(s) identified below:
  - (1) Emission Limitations:

Actual emissions of HAPs shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs, as a 12-month rolling summation.

Applicable Compliance Method:



Compliance with the 12-month rolling HAP limitations shall be demonstrated by the record keeping identified in B.2.b).

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D))

3. The permittee shall maintain, service, repair, or dispose of equipment containing any class I or class II substance used as refrigerant in such equipment pursuant to the applicable provisions of 40 CFR Part 82, Subpart F.

(Authority for term: 40 CFR Part 82.150)

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

- a) B002 - Boiler #1 - 8.4 mmBtu/hour natural gas-fired boiler;
- b) L060 – Non-halogenated Solvent Cold Cleaner - Tool Room Model 1602R;
- c) L061 - Non-halogenated Solvent Cold Cleaner - Machine Shop Model 1602R;
- d) L062 - Non-halogenated Solvent Cold Cleaner - Maintenance Shop Model K54097;
- e) L063 - Non-halogenated Solvent Cold Cleaner - Press Aerosol Tops Model 1602;
- f) L064 - Non-halogenated Solvent Cold Cleaner - Press Aerosol Bottoms Model 64097;
- g) L065 - Non-halogenated Solvent Cold Cleaner - Assembly Department Model 1602R;
- h) L066 - Non-halogenated Solvent Cold Cleaner - Litho Maintenance Shop Model K54097;
- i) L067 - Non-halogenated Solvent Cold Cleaner - Litho Line 1;
- j) L068 - Non-halogenated Solvent Cold Cleaner - Litho Line 2; and
- k) L069 - Non-halogenated Solvent Cold Cleaner - Litho Line 3.

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. The insignificant emissions units listed above are not subject to specific permit to install requirements but are subject to one or more applicable requirements contained in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21.

(Authority for term: OAC rule 3745-77-07(A)(13))

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

- a) F036 - Paved Roadways;
- b) P041 - Electric Resistance Welding Side Seam;
- c) P044 - Wastewater Treatment Plant;



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- d) L050 - Automatic Parts Washer Tank;
- e) B051 - 4.1 mmBtu/hour Natural Gas-fired Air Makeup Unit 1;
- f) B052 - 4.1 mmBtu/hour Natural Gas-fired Air Makeup Unit 2;
- g) B053 - 4.1 mmBtu/hour Natural Gas-fired Air Makeup Unit 3;
- h) B054 - 4.1 mmBtu/hour Natural Gas-fired Air Makeup Unit 4;
- i) B055 - 4.1 mmBtu/hour Natural Gas-fired Air Makeup Unit 5;
- j) B056 - 4.1 mmBtu/hour Natural Gas-fired Air Makeup Unit 6; and
- k) B057 - 4.1 mmBtu/hour Natural Gas-fired Air Makeup Unit 7.



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## **C. Emissions Unit Terms and Conditions**



1. **K054, Can Line 6**

**Operations, Property and/or Equipment Description:**

Side Seam Stripe Applicator 6

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) d)(2), d)(3), d)(4), d)(5), and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 14-04686)	<p>Volatile organic compound (VOC) emissions shall not exceed 1.64 pounds per hour*, excluding cleanup materials.</p> <p>VOC emissions shall not exceed 9.7 tons per year (TPY), including cleanup materials.</p> <p>See b)(2)a.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(D)(2)(d).</p> <p>*The hourly emission limitation outlined above is based on the emissions unit's potential to emit (PTE). Therefore, no hourly records are required to demonstrate compliance with this limitation.</p>
b.	OAC rule 3745-21-09(D)(2)(d)	See b)(2)b.

(2) Additional Terms and Conditions

a. The VOC content of the cleanup material employed shall not exceed 7.03 pounds of VOC per gallon of cleanup material.

b. The VOC content of the coatings employed shall not exceed 5.5 pounds of VOC per gallon of coating, as applied, excluding water and exempt solvents.



- c) Operational Restrictions
  - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) The permittee shall collect and record the following information each month for this emissions unit:
    - a. the name and identification number of each coating, as applied;
    - b. the VOC content of each coating, in pounds of VOC per gallon, excluding water and exempt solvents, as applied;
    - c. the amount of each coating employed, in gallons, excluding water and exempt solvents;
    - d. the name and identification number of each cleanup material employed;
    - e. the VOC content of each cleanup material, in pounds of VOC per gallon;
    - f. the amount of each cleanup material employed, in gallons;
    - g. the total monthly emissions, in pounds or tons, of VOC from all coatings and cleanup materials employed; and
    - h. the year-to-date VOC emission totals, recorded in tons.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-09(B)(3)(f), and OAC rule 3745-31-05(A)(3))

- (2) The permit-to-install (PTI) application for this emissions unit, K054, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
  - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
    - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for



Chemical Substances and Physical Agents Biological Exposure Indices”;  
or

ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists’ (ACGIH) “Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices”; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., “24” hours per day and “7” days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or “worst case” toxic contaminant(s):

Toxic Contaminant: n-butyl alcohol

TLV (ug/m3): 151,000

Maximum Hourly Emission Rate (lbs/hr): 1.64

Predicted 1-Hour Maximum Ground Level Concentration (ug/m3): 43

MAGLC (ug/m3): 3,595

The permittee has demonstrated that emissions of n-butyl alcohol, from emissions unit K054, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F).

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

(3) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground level concentration”, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;



- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
  - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (5) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air



Contaminant Statute”, ORC 3704.03(F), through the predicted 1-hour maximum ground level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (6) 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 #14-04686, issued on April 7, 1999: d)(1) through d)(5). 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 notify the Hamilton County Department of Environmental Services in writing of any monthly record showing any exceedance of the coating or cleanup material VOC content limitations. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-09(B)(3)(g), and OAC rule 3745-31-05(A)(3))

- (2) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground level concentration, in the quarterly deviation (excursion) reports. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (3) 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 #14-04686, issued on April 7, 1999: e)(1), and e)(2). 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 limitations specified in b) of these terms and conditions shall be determined in accordance with the following methods:



a. Emission Limitations:

The VOC content of the coatings employed shall not exceed 5.5 pounds of VOC per gallon of coating, as applied, excluding water and exempt solvents.

The VOC content of the cleanup material employed shall not exceed 7.03 pounds of VOC per gallon of cleanup material.

Applicable Compliance Method:

Compliance with the VOC content limitations specified above shall be determined by the record keeping requirements specified in d)(1). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings/cleanup materials and (b) flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to Method 24 as outlined in 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating, cleanup material, or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating, cleanup material, or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-10(B), and OAC rule 3745-31-05(A)(3))

b. Emission Limitation:

VOC emissions shall not exceed 1.64 pounds per hour, excluding cleanup materials.

Applicable Compliance Method:

The hourly emissions limitation specified above is based on the emissions unit's potential to emit and the operational parameters as provided in the PTI application 14-04686, submitted December 29, 1998. This emissions limitation was established by multiplying the emissions unit's maximum hourly coating usage rate (0.299 gallon per hour) by the maximum allowable VOC content (5.5 pounds per gallon).

If required, the permittee shall demonstrate compliance with this emissions limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3))

c. Emission Limitation:

VOC emissions shall not exceed 9.7 TPY, including cleanup materials.

Applicable Compliance Method:



Compliance with the VOC emissions limitation specified above shall be determined by the record keeping requirements specified in d)(1)h. The annual emissions limitation was determined by multiplying the maximum potential hourly emission rate by 8760 hours per year and adding the maximum emissions from the cleanup material (maximum usage of 720 gallons per year multiplied by the maximum VOC content of 7.03 pounds per gallon) then dividing that total by 2000 pounds per ton.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 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 #14-04686, issued on April 7, 1999: f)(1)a. through f)(1)c. 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 following is a summary of the netting emissions in tons per year (TPY) contained in the terms and conditions of PTI #14-04686, issued April 7, 1999, for this emissions unit in order to determine whether the permittee had triggered a major modification:

<u>Emissions Unit</u>	<u>Pollutant</u>	<u>Decrease</u>	<u>Increase</u>
K025	VOC	-35.73*	
K026	VOC	-25.36*	
K027	VOC	-25.73*	
K039	VOC	-1.16*	
K040	VOC	-18.26**	
K045	VOC	-35.73*	
K047	VOC	-8.05*	
K049 (PTI 14-4457)	VOC		+2.94
K050 (PTI 14-4545)	VOC		+13.6
K051 (PTI 14-4555)	VOC		+13.6
K052 (PTI 14-4554)	VOC		+4.26
K053 (PTI 14-4643)	VOC		+13.64
K054 (PTI 14-4686)	VOC		+9.65
Net Emissions Change		-92.33	



State of Ohio Environmental Protection Agency  
Division of Air Pollution Control

**Preliminary Proposed Title V Permit**

**Permit Number:** P0099713

**Facility ID:** 1431340460

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

\*Emission credits are based on an average of the actual controlled emissions from the years 1996 and 1997.

\*\* Based on average actual controlled emissions from 1992 and 1993. Emissions unit K040 was shut down during 1994.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3))



**2. K056, Can Line 7**

**Operations, Property and/or Equipment Description:**

Side Seam Stripe Applicator 7

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) d)(2), d)(3), d)(4), d)(5), and e)(2).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 14-05391)	<p>Volatile organic compound (VOC) emissions shall not exceed 1.65 pounds per hour*, excluding cleanup materials.</p> <p>VOC emissions shall not exceed 9.8 tons per year (TPY), including cleanup materials.</p> <p>See b)(2)a.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(D)(2)(d).</p> <p>*The hourly emissions limitation outlined above is based on the emissions unit's potential to emit (PTE). Therefore, no hourly records are required to demonstrate compliance with this limitation.</p>
b.	OAC rule 3745-21-09(D)(2)(d)	See b)(2)b.

(2) Additional Terms and Conditions

a. The VOC content of the cleanup material employed shall not exceed 7.03 pounds of VOC per gallon of cleanup material.

b. The VOC content of the coatings employed shall not exceed 5.5 pounds of VOC per gallon of coating, as applied, excluding water and exempt solvents.



- c) Operational Restrictions
  - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) The permittee shall collect and record the following information each month for this emissions unit:
    - a. the name and identification number of each coating, as applied;
    - b. the VOC content of each coating, in pounds of VOC per gallon, excluding water and exempt solvents, as applied;
    - c. the amount of each coating employed, in gallons, excluding water and exempt solvents;
    - d. the name and identification number of each cleanup material employed;
    - e. the VOC content of each cleanup material, in pounds of VOC per gallon;
    - f. the amount of each cleanup material employed, in gallons; and
    - g. the total emissions, in pounds or tons, of VOC from all coatings and cleanup materials employed.
    - h. the year-to-date VOC emission totals, recorded in tons.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-09(B)(3)(f), and OAC rule 3745-31-05(A)(3))

- (2) The permit-to-install (PTI) application for this emissions unit, K056, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
  - a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
    - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for



Chemical Substances and Physical Agents Biological Exposure Indices”;  
or

ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists’ (ACGIH) “Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices”; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.

b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).

c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., “24” hours per day and “7” days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or “worst case” toxic contaminant(s):

Toxic Contaminant: formaldehyde

TLV (ug/m3): 370

Maximum Hourly Emission Rate (lbs/hr): 0.0098

Predicted 1-Hour Maximum Ground Level Concentration (ug/m3): 0.25

MAGLC (ug/m3): 8.8

The permittee has demonstrated that emissions of formaldehyde, from emissions unit K056, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F).

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

(3) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground level concentration”, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;



- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the “Toxic Air Contaminant Statute” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a “modification”, the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (4) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F):
  - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground level concentration that demonstrated the emissions unit(s) to be in compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (5) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the “Toxic Air



Contaminant Statute”, ORC 3704.03(F), through the predicted 1-hour maximum ground level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (6) 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 #14-05391, issued on January 23, 2003: d)(1) through d)(5). 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 notify the Hamilton County Department of Environmental Services in writing of any monthly record showing any exceedance of the coating or cleanup material VOC content limitations. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-09(B)(3)(g), and OAC rule 3745-31-05(A)(3))

- (2) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground level concentration, in the quarterly deviation (excursion) reports. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (3) 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 #14-05391, issued on January 23, 2003: e)(1) and e)(2). 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 limitations specified in b) of these terms and conditions shall be determined in accordance with the following methods:



a. Emission Limitations:

The VOC content of the coatings employed shall not exceed 5.5 pounds of VOC per gallon of coating, as applied, excluding water and exempt solvents.

The VOC content of the cleanup material employed shall not exceed 7.03 pounds of VOC per gallon of cleanup material.

Applicable Compliance Method:

Compliance with the VOC content limitations specified above shall be determined by the record keeping requirements specified in d)(1). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings/cleanup materials and (b) flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to Method 24 as outlined in 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating, cleanup material, or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating, cleanup material, or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-10(B), and OAC rule 3745-31-05(A)(3))

b. Emission Limitation:

VOC emissions shall not exceed 1.65 pounds per hour, excluding cleanup materials.

Applicable Compliance Method:

The hourly emissions limitation specified above is based on the emissions unit's potential to emit and the operational parameters as provided in the PTI application 14-05391, submitted December 26, 2002. This emissions limitation was established by multiplying the emissions unit's maximum hourly coating usage rate (0.30 gallon per hour) by the maximum allowable VOC content (5.5 pounds per gallon).

If required, the permittee shall demonstrate compliance with this emissions limitation through emissions tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or 25A.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3))

c. Emission Limitation:

VOC emissions shall not exceed 9.8 TPY, including cleanup materials.

Applicable Compliance Method:



Compliance with the VOC emissions limitation specified above shall be determined by the record keeping requirements specified in d)(1)h. The annual emissions limitation was determined by multiplying the maximum potential hourly emission rate by 8760 hours per year and adding the maximum emissions from the cleanup material (maximum usage of 720 gallons per year multiplied by the maximum VOC content of 7.03 pounds per gallon) then dividing that total by 2000 pounds per ton.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 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 #14-05391, issued on January 23, 2003: f)(1)a. through f)(1)c. 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.



3. K057, PC-8

Operations, Property and/or Equipment Description:

Four Color UV Printing and Coating Line (PC - 8)

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) g)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI 14-06015)  Voluntary Restrictions to Avoid BAT and Non-Attainment New Source Review	Volatile organic compound (VOC) emissions shall not exceed 4.7 tons per year (TPY), as a rolling 12-month summation.  See b)(2)a. and c)(1).
b.	OAC rule 3745-21-09(D)(2)(b)	See b)(2)b.

(2) Additional Terms and Conditions

a. Permit to install 14-06015 for this air contaminant source takes into account the following voluntary restrictions 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 VOC emissions to 4.7 TPY, as a rolling 12-month summation.

b. The permittee shall not employ coatings in emissions unit K057 with a VOC content greater than 2.8 pounds per gallon of coating, as applied, excluding water and exempt solvents.

c) Operational Restrictions

(1) The maximum annual VOC input, as applied, of materials employed in this emissions unit shall not exceed 9.0 tons per year as a rolling 12-month summation. The VOC input shall be determined by multiplying the number of gallons of coating and cleanup solvent employed per month by the VOC content of each coating and the cleanup solvent in pounds per gallon, excluding water and exempt solvents (see record keeping requirements in terms and conditions d)(1)).



(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(D))

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for this emissions unit:
- a. the name and identification number of each coating and cleanup material, as applied.
  - b. the VOC content of each coating and cleanup material in pounds of VOC per gallon, excluding water and exempt solvents, as applied.
  - c. the water and exempt solvent content of each coating, as applied, in percent by weight.
  - d. the amount of each coating employed, in gallons, excluding water and exempt solvents.
  - e. the coating-specific release factor, as provided in US EPA technical support documents and control technique guidelines for offset lithographic printing, for each coating employed.
  - f. the amount of each cleanup material employed, in gallons.
  - g. the weight percent solids and weight percent water of each waste cleanup material collected.
  - h. the amount of each waste cleanup material collected, in gallons of solvent less solids and water.
  - i. the monthly VOC input, in tons, determined by multiplying the VOC content of each coating from b. by the gallon usage in d. plus the VOC content of each cleanup material from b. multiplied by the gallon usage from f. This value is then divided by 2000 pounds per ton. For the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative monthly VOC input for each calendar month.
  - j. the monthly VOC emissions (the summation of the VOC emission calculations for each coating and cleanup material employed. See f)(1)b. for calculation methodology).
  - k. the updated rolling, 12-month summation total, in tons, of VOC input (the total amount of VOC input for the current month recorded in line i. plus the total amount of VOC input for the previous eleven calendar months).
  - l. the updated rolling, 12-month summation total, in tons, of VOC emissions (the total amount of VOC emissions for the current month recorded in line j. plus the total amount of VOC emissions for the previous eleven calendar months).

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(D), and OAC rule 3745-21-09(B)(3)(f))



- (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 #14-06015, issued on October 21, 2008: 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 quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the following:
  - a. an identification of all exceedances of the rolling 12-month VOC input operational restriction as specified in c)(1); and
  - b. an identification of all exceedances of the rolling 12-month emission limitation for VOC as specified in b)(1).

If no deviations occurred during the reporting period, the permittee shall state so in the report.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D))

- (2) The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing a coating VOC content greater than 2.8 pounds VOC per gallon, as applied, excluding water and exempt solvents. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month in which the use of non-complying coatings was recorded.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(B)(3)(g))

- (3) 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 #14-06015, issued on October 21, 2008: e)(1) and e)(2). 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 limitations specified in b) and c)(1) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

The VOC content of the coatings employed shall not exceed 2.8 pounds per gallon, as applied, excluding water and exempt solvents.

Applicable Compliance Method:



USEPA methods 24 and 24A shall be used to determine the VOC content for coatings. If, pursuant 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A. USEPA Method 24 or formulation data shall be used to determine the VOC contents of the cleanup materials.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-10(B))

b. Emission Limitation:

Volatile organic compound (VOC) emissions shall not exceed 4.7 tons per year (TPY), as a rolling 12-month summation.

Applicable Compliance Method:

The annual VOC emissions limitation established through OAC rule 3745-31-05(D) was developed from the following equations using the information submitted by the permittee in the revised permit to install (PTI) application 14-06015, submitted on March 06, 2008:

$$\{(61,167 \text{ gallons/year of UV Ink, excluding water and exempt solvents}) \times (0.08 \text{ lbs VOC/gal}) \times (0.05 \text{ Release factor}) \times (1 \text{ Ton}/2000 \text{ lbs})\} +$$

$$\{(1,825 \text{ gallons/year of Fountain Solution, excluding water and exempt solvents}) \times (0.15 \text{ lbs VOC/gal}) \times (1 \text{ Ton}/2000 \text{ lbs})\} +$$

$$\{(45,990 \text{ gallons/year of UV Overvarnish, excluding water and exempt solvents}) \times (0.10 \text{ lbs VOC/gal}) \times (1 \text{ Ton}/2000 \text{ lbs})\}$$

$$= 2.6 \text{ TPY VOC}$$

$$\{(1,095 \text{ gallons/year of cleanup material*}, \text{ excluding water and exempt solvents}) \times (7.54 \text{ lbs VOC/gal}) \times (0.5 \text{ Release factor}) \times (1 \text{ Ton}/2000 \text{ lbs})\}$$

$$= 2.1 \text{ TPY VOC}$$

Total VOC emissions considering voluntary restrictions = 2.6 + 2.1 = 4.7 TPY.

\* The permittee may subtract out the cleanup material which is collected for sale, reuse, or disposal if the records are maintained as outlined in (d)(1).

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D))

- (2) Compliance with the VOC input limitation in c)(1) shall be demonstrated by the record keeping required in d)(1).

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



#14-06015, issued on October 21, 2008: f)(1) and 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) Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

(Authority for term: OAC rule 3745-77-07(C)(1), and ORC 3704.03(F)(3)(c) and F(4))



**4. K058, PC-9**

**Operations, Property and/or Equipment Description:**

3 Color UV Press and One Conventional Ink Press with Coater and Oxidizer (PC - 9)

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) d)(10), d)(11), d)(12), d)(13), and e)(3).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (14-06015)  Voluntary Restrictions to Avoid BAT and Non-Attainment New Source Review	Volatile organic compound (VOC) emissions shall not exceed 8.84 tons per year (TPY), as a rolling 12-month summation.  See b)(2)a. and c)(1).
b.	OAC rule 3745-21-09(D)(2)(b)	The emission limitations specified by this rule are less stringent than the emission limitation and overall VOC emission reduction requirements established pursuant to OAC rule 3745-31-05(D).
c.	40 CFR Part 64  Compliance Assurance Monitoring (CAM)	See d)(2) through d)(9), e)(2), f)(3), and g)(1).

(2) Additional Terms and Conditions

a. Permit to install 14-06015 for this air contaminant source takes into account the following voluntary restrictions 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 VOC emissions to 8.84 TPY, as a rolling 12-month summation.

ii. Utilizing VOC capture equipment and an integral thermal oxidizer providing not less than 95% reduction, by weight, in the overall VOC emissions from the emissions unit K058, except during cleanup operations. The integral thermal oxidizer shall provide an efficiency



(percent destruction) of not less than 95% by weight, for VOC emissions vented to the thermal oxidizer.

c) Operational Restrictions

- (1) The maximum annual VOC input, as applied, of materials employed in this emissions unit shall not exceed 120 tons per year as a rolling 12-month summation. The VOC input shall be determined by multiplying the number of gallons of coating and cleanup solvent employed per month by the VOC content of each coating and the cleanup solvent in pounds per gallon, excluding water and exempt solvents (see record keeping requirements in terms and conditions d)(1)).

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(D))

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for this emissions unit:
  - a. the name and identification number of each coating and cleanup material, as applied.
  - b. the VOC content of each coating and cleanup material in pounds of VOC per gallon, excluding water and exempt solvents, as applied.
  - c. the water and exempt solvent content of each coating, as applied, in percent by weight.
  - d. the amount of each coating employed, in gallons, excluding water and exempt solvents.
  - e. the coating-specific release factor, as provided in US EPA technical support documents and control technique guidelines for offset lithographic printing, for each coating employed.
  - f. the amount of each cleanup material employed, in gallons.
  - g. the weight percent solids and weight percent water of each waste cleanup material collected.
  - h. the amount of each waste cleanup material collected, in gallons of solvent less solids and water.
  - i. the monthly VOC input, in tons, determined by multiplying the VOC content of each coating from b. by the gallon usage in d. plus the VOC content of each cleanup material from b. multiplied by the gallon usage from f. This value is then divided by 2000 pounds per ton. For the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative monthly VOC input for each calendar month.
  - j. the monthly VOC emissions (the summation of the VOC emission calculations for each coating and cleanup material employed. See f)(1) for calculation methodology).



- k. the updated rolling, 12-month summation total, in tons, of VOC input (the total amount of VOC input for the current month recorded in line i. plus the total amount of VOC input for the previous eleven calendar months).
- l. the updated rolling, 12-month summation total, in tons, of VOC emissions (the total amount of VOC emissions for the current month recorded in line j. plus the total amount of VOC emissions for the previous eleven calendar months).

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(D), and OAC rule 3745-21-09(B)(3)(f))

- (2) The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within  $\pm 1$  percent of the temperature being measured or  $\pm 5$  degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual(s).

In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable combustion temperature within the thermal oxidizer, during any period of time when the emissions unit is in operation, shall not be less than 1500 degrees Fahrenheit based upon the manufacturer's specifications until such time as any required emission testing is conducted.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(D), and 40 CFR Part 64)

- (3) The permittee shall properly operate and maintain equipment to continuously monitor and record the duct static pressure at a location upstream (i.e. the vacuum side) of the primary fan in each capture device or upstream of the fan that is common to multiple capture devices during operation of this emissions unit. Units shall be in inches of water gage. The monitoring equipment shall be calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The permittee shall record the duct static pressure on a daily basis.

The duct static pressure shall be maintained under negative pressure, at a minimum duct static pressure that is not less than 0.013 mm Hg (0.007 inches of H<sub>2</sub>O gage) as established in Method 204 of Appendix M to 40 CFR Part 51, whenever coating is in progress, except when product quality checks and maintenance operations are performed.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(D), and 40 CFR Part 64)

- (4) The permittee shall collect and record the following information each day the thermal oxidizer and capture device(s) are required to demonstrate compliance with the VOC limitation(s) contained in this permit:



- a. all 3-hour blocks of time, when the emissions unit controlled by the thermal oxidizer was in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance;
- b. all 3-hour blocks of time during which the duct static pressure is not maintained at or above the minimum pressure differential of 0.007 inches of water, as a three-hour average; and
- c. a log or record of the operating time for the capture (collection) system, thermal oxidizer, monitoring equipment, and the associated emissions unit.

These records shall be maintained at the facility for a period of three years.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (5) Whenever the monitored average combustion temperature within the thermal oxidizer 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/limit 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 readings 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 range/limit is 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/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable VOC emission rate for this emissions unit. In addition, approved revisions to the temperature range/limit 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), OAC rule 3745-31-05(D) and 40 CFR Part 64)

- (6) Whenever the monitored average duct static pressure deviates from the value 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 capture device (enclosure) within the acceptable value 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 duct static pressure readings 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 duct static pressure value is 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 this value based upon information obtained during future emission tests that demonstrate compliance with the allowable VOC emission rate for this emissions unit. In addition, approved revisions to this value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of minor permit modification.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(D), and 40 CFR Part 64)

- (7) The CAM plan for monitoring the control efficiency of the thermal oxidizer controlling VOC emissions from this emissions unit has been developed for the monitoring of the combustion temperature within the thermal oxidizer. The CAM performance indicator for this temperature requirement is specified in d)(2). When the temperature is outside of the indicator limit specified in d)(2), corrective action (including, but not limited to, an evaluation of the thermal oxidizer) will be required.

Upon detecting an excursion of the thermal oxidizer temperature indicator limit specified in d)(2), the owner or operator shall restore operation of the emissions unit (including the control device) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operation returned to normal without operator action, or any necessary follow-up actions to return operation to within the indicator ranges.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (8) The CAM plan for monitoring the capture efficiency of the control equipment for this emissions unit has been developed for the monitoring of the duct static pressure at a location upstream (i.e. the vacuum side) of the primary fan in each capture device (enclosure) or upstream of the fan that is common to multiple capture devices (enclosures) during operation of this emissions unit. The CAM performance indicator value for the duct static pressure is specified in d)(3). When the duct static pressure is outside of the indicator value specified in d)(3), corrective action (including, but not limited to, an evaluation of the enclosure(s)) will be required.

Upon detecting an excursion of the duct static pressure specified in d)(3), the owner or operator shall restore operation of the emissions unit (including the capture and control device) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the



likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operation returned to normal without operator action, or any necessary follow-up actions to return operation to within the indicator ranges.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (9) If a determination is made by the Administrator or Ohio EPA that the permittee has not used acceptable procedures in response to an excursion or exceedance based on the results of a determination made under 40 CFR Part 64.7(d)(2), the permittee may be required to develop a Quality Improvement Plan (QIP) consistent with the requirements of 40 CFR Part 64.8.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (10) The permit to install for this emissions unit (K058) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN 3.0, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
  - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
  - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting



calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or “worst case” toxic contaminant(s):

Toxic Contaminant: Xylene

TLV (mg/m3): 434,190

Maximum Hourly Emission Rate (lbs/hr): 0.54

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 5.901

MAGLC (ug/m3): 10337.86

The permittee, has demonstrated that emissions of xylene, from emissions unit(s) K058, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F).

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (11) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration”, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
  - a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
  - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the “Toxic Air Contaminant Statute” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a “modification” or if a new toxic is emitted, or the modeled toxic(s) is/are expected to



exceed the previous modeled level(s), then the permittee shall apply for and obtain a final permit-to-install prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit-to-install application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and may require the permittee to submit a permit-to-install application for the increased emissions.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (12) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
  - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
  - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
  - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (13) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (14) 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 #14-06015, issued on October 21, 2008: d)(1) through d)(13). 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 quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the following:

- a. An identification of all exceedances of the rolling 12-month VOC input operational restriction as specified in c)(1); and
- b. An identification of all exceedances of the rolling 12-month emission limitation for VOC as specified in b)(1).

If no deviations occurred during the reporting period, the permittee shall state so in the report.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D))

(2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:

- a. each 3-hour block of time, when the emissions unit was in operation, when the combustion temperature within the thermal oxidizer was below the acceptable limit specified in d)(2) of these terms and conditions;
- b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the thermal oxidizer;
- c. each 3-hour blocks of time, when the emissions unit was in operation, during which the duct static pressure was not maintained at the minimum pressure differential of 0.007 inches of water;
- d. each incident of deviation described in "a", "b", or "c" (above) where a prompt investigation was not conducted;
- e. each incident of deviation described in "a", "b", or "c" where prompt corrective action, that would bring the emissions unit into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and
- f. each incident of deviation described in "a", "b", or "c" where proper records were not maintained for the investigation and/or the corrective action(s).

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(D), and 40 CFR Part 64)

(3) The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the



dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s), emissions, or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (4) 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 #14-06015, issued on October 21, 2008: e)(1) through e)(3). 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 limitations specified in b) and c)(1) of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

Volatile organic compound (VOC) emissions shall not exceed 8.84 tons per year (TPY), as a rolling 12-month summation.

Applicable Compliance Method:

The annual VOC emissions limitation established through OAC rule 3745-31-05(D) was developed from the following equations using the information submitted by the permittee in the revised permit to install (PTI) application 14-06015, submitted on March 06, 2008:

$$\{(61,167 \text{ gallons/year of UV Ink, excluding water and exempt solvents}) \times (0.08 \text{ lbs VOC/gal}) \times (0.05 \text{ Release factor}) \times (1 \text{ Ton}/2000 \text{ lbs})\} +$$

$$\{(1,825 \text{ gallons/year of Fountain Solution, excluding water and exempt solvents}) \times (0.15 \text{ lbs VOC/gal}) \times (1 \text{ Ton}/2000 \text{ lbs})\} +$$

$$\{(16,425 \text{ gallons/year of Conventional Heatset Ink, excluding water and exempt solvents}) \times (1.40 \text{ lbs VOC/gal}) \times (0.2 \text{ Release factor}) \times (1 - 95\% \text{ overall reduction efficiency}) \times (1 \text{ Ton}/2000 \text{ lbs})\} +$$

$$\{(70,080 \text{ gallons/year of Conventional overvarnish, excluding water and exempt solvents}) \times (2.8 \text{ lbs VOC/gal}) \times (1 - 95\% \text{ overall reduction efficiency}) \times (1 \text{ Ton}/2000 \text{ lbs})\}$$

$$= 5.28\text{TPY}$$

$$\{(1,095 \text{ gallons/year of UV cleanup material, excluding water and exempt solvents}) \times (7.54 \text{ lbs VOC/gal}) \times (0.5 \text{ Release factor}) \times (1 \text{ Ton}/2000 \text{ lbs})\} +$$



$\{(1,095 \text{ gallons/year of Conventional cleanup material, excluding water and exempt solvents}) \times (6.2 \text{ lbs VOC/gal}) \times (1 - 80 \% \text{ capture efficiency}) \times (1 \text{ Ton}/2000 \text{ lbs})\} +$

$\{(1,095 \text{ gallons/year of Conventional cleanup material, excluding water and exempt solvents}) \times (6.2 \text{ lbs VOC/gal}) \times \{1 - ((80 \% \text{ capture efficiency})(95 \% \text{ control efficiency}))\} \times (1 \text{ Ton}/2000 \text{ lbs})\}$

= 3.56 TPY

Total VOC emissions considering voluntary restrictions = 5.28 + 3.56 = 8.84 TPY

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D))

- (2) Compliance with the VOC input limitation in c)(1) shall be demonstrated by the record keeping required in d)(1).

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D))

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

- a. the emission testing shall be conducted within 180 days after the initial startup of the emissions unit.
- b. the emission testing shall be conducted to demonstrate compliance with the requirements specified in term and condition b)(2)a. for overall control efficiency of not less than 95% and a destruction efficiency of not less than 95% by weight, of all VOC emissions entering the control device.
- c. the permittee shall record the temperature within the combustion chamber of the thermal oxidizer during each three one-hour compliance runs. At a minimum, the temperature shall be recorded at 15 minute intervals. These averages shall be used to determine the acceptable combustion temperature specified in d(2).
- d. 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.)
- e. 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.



- f. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Hamilton County Department of Environmental Services.
- g. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the 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 Hamilton County Department of Environmental Services' refusal to accept the results of the emission test(s).
- h. personnel from the Hamilton County Department of Environmental Services 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.
- i. 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 Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(D), and 40 CFR Part 64)

- (4) 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 #14-06015, issued on October 21, 2008: f)(1) through f)(3). 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 enclosures 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 when coating is in progress, except when product quality assurance checks and maintenance operations are performed. The permittee shall also maintain an interlock device on the enclosure above the coating applicator rolls such that the enclosure cannot be compromised when the emissions unit is in operation.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(D), and 40 CFR Part 64)



**5. Emissions Unit Group - Conventional Coaters 2, 5, 8: K041, K044, K046,**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
K041	Three-piece can coater with regenerative thermal oxidizer
K044	Three-piece can coater with regenerative thermal oxidizer
K046	Three-piece can coater with regenerative thermal 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. 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 3745-21-09(D)	See b)(2)a.
b.	40 CFR Part 64  Compliance Assurance Monitoring (CAM)	See d)(3) through d)(10), e)(3), f)(2), and g)(1).

(2) Additional Terms and Conditions

a. Pursuant to OAC rule 3745-21-09(D)(2) for the surface coating of three-piece cans, the permittee shall comply with one of the following applicable rules and requirements specified in b)(2)a.i., b)(2)a.ii., or b)(2)a.iii. at all times for this emissions unit:

i. The VOC content of the coatings employed shall not exceed the following:

(a) 2.8 pounds of VOC per gallon of coating for basecoats, as applied, excluding water and exempt solvents; and

(b) 4.2 pounds of VOC per gallon of coating for interior body coatings, as applied, excluding water and exempt solvents.

ii. The VOC content of the coatings employed when a control system is in operation shall not exceed the following:

(a) 4.5 pounds of VOC per gallon of solids for basecoats; and

(b) 9.8 pounds of VOC per gallon of solids for interior body coatings.



- iii. In lieu of employing compliant coatings as specified above, the VOC capture and control equipment for this emissions unit shall not provide less than an 81% reduction, by weight, in overall VOC emissions from the coating line, and the control equipment (regenerative thermal oxidizer) shall provide an efficiency (percent destruction) of not less than 90%, by weight, for VOC emissions vented to the control equipment.
- c) Operational Restrictions
- (1) None.
- d) Monitoring and/or Recordkeeping Requirements
- (1) The permittee shall collect and record the following information each month whenever the emissions unit is in operation and complying with the specified requirements in b)(2)a.i. of these terms and conditions:
    - a. the name, identification number, and type (e.g. basecoat, interior body coat, etc.) of each coating, as applied; and
    - b. the VOC content of each coating (excluding water and exempt solvents), as applied.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(B)(3)(f))
  - (2) The permittee shall collect and record the following information each day whenever the emissions unit is in operation and the regenerative thermal oxidizer is employed to comply with the specified requirements in b)(2)a.ii. of these terms and conditions:
    - a. the name, identification number, and type (e.g. basecoat, interior body coat, etc.) of each coating, as applied;
    - b. the pounds of VOC per gallon of coating solids, as applied, the volume solids content, as applied, and the volume, as applied, of each coating;
    - c. the maximum VOC content (in pounds of VOC per gallon of coating solids, as applied) or the daily volume-weighted average VOC content (in pounds of VOC per gallon of coating solids, as applied) of all the coatings; and
    - d. the calculated, controlled VOC emission rate, in pounds of VOC per gallon of coating solids, as applied (the controlled VOC emission rate shall be calculated using (i) either the maximum VOC content or the daily volume-weighted VOC content recorded in accordance with d)(2)c. above and (ii) the overall control efficiency for the control equipment as determined during the most recent emission test that demonstrated that the emissions unit was in compliance.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(B)(3)(j))
  - (3) The permittee shall operate and maintain a continuous temperature monitor and recorder to measure and record the combustion temperature within the regenerative thermal oxidizer when the emissions unit is in operation and complying with the specified requirements b)(2)a.ii. or b)(2)a.iii. of these terms and conditions. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall



be guaranteed by the manufacturer to be within  $\pm$  1 percent of the temperature being measured or  $\pm$  5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual(s).

In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable combustion temperature within the regenerative thermal oxidizer, during any period of time when the emissions unit is in operation and complying with the requirements of b)(2)a.ii. or b)(2)a.iii., shall not be less than 1500 degrees Fahrenheit.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-09(B)(3)(j), OAC rule 3745-21-09(B)(3)(l), OAC rule 3745-21-09(B)(3)(n), and 40 CFR Part 64)

- (4) The permittee shall operate and maintain equipment to continuously monitor and record the duct static pressure at a location upstream (i.e. the vacuum side) of the primary fan in each capture device (enclosure) or upstream of the fan that is common to multiple capture devices (enclosures) during operation of this emissions unit. Units shall be in inches of water gage. The monitoring equipment shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

In order to maintain compliance with the applicable emission limitations contained in this permit, the total enclosure shall be maintained under negative pressure, at a minimum vacuum static pressure that is not less than 0.013 mm Hg (0.007 inches of H<sub>2</sub>O gage) as established in Method 204 of Appendix M to 40 CFR Part 51, whenever coating is in progress, except when product quality assurance checks and maintenance operations are performed.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-09(B)(3)(j), OAC rule 3745-21-09(B)(3)(l), OAC rule 3745-21-09(B)(3)(n), and 40 CFR Part 64)

- (5) The permittee shall collect and record the following information each day the regenerative thermal oxidizer and capture device(s) are required to demonstrate compliance with the VOC limitation(s) contained in this permit:
  - a. all 3-hour blocks of time, when the emissions unit controlled by the regenerative thermal oxidizer was in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance;
  - b. all 3-hour blocks of time during which the duct static pressure is not maintained at or above the minimum pressure differential of 0.007 inches of water, as a three-hour average; and
  - c. a log or record of the operating time for the capture (collection) system, regenerative thermal oxidizer, monitoring equipment, and the associated emissions unit.

These records shall be maintained at the facility for a period of three years.



(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-09(B)(3)(j), OAC rule 3745-21-09(B)(3)(l), and 40 CFR Part 64)

- (6) Whenever the monitored average combustion temperature within the regenerative thermal oxidizer deviates from the limit specified below, 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/limit 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 readings 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.

In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable combustion temperature within the regenerative thermal oxidizer, during any period of time when the emissions unit is in operation and complying with the requirements of b)(2)a.ii. or b)(2)a.iii., shall not be less than 1500 degrees Fahrenheit.

The temperature limit is 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 limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature limit 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) and 40 CFR Part 64)

- (7) Whenever the monitored average duct static pressure deviates from the value specified below, 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 capture device (enclosure) within the acceptable value 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 duct static pressure readings 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.

In order to maintain compliance with the applicable emission limitations contained in this permit, the total enclosure shall be maintained under negative pressure, at a minimum vacuum static pressure that is not less than 0.013 mm Hg (0.007 inches of H<sub>2</sub>O gage) as established in Method 204 of Appendix M to 40 CFR Part 51, whenever coating is in progress, except when product quality assurance checks and maintenance operations are performed.

This value is 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 this value based upon



information obtained during future emission tests that demonstrate compliance with the allowable VOC emission rate for this emissions unit. In addition, approved revisions to this value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of minor permit modification.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (8) The CAM plan for monitoring the control efficiency of the regenerative thermal oxidizer controlling VOC emissions from this emissions unit has been developed for the monitoring of the combustion temperature within the regenerative thermal oxidizer. The CAM performance indicator for this temperature requirement is specified in d)(6). When the temperature is outside of the indicator limit specified in d)(6), corrective action (including, but not limited to, an evaluation of the regenerative thermal oxidizer) will be required.

Upon detecting an excursion of the regenerative thermal oxidizer temperature indicator limit specified in d)(6), the owner or operator shall restore operation of the emissions unit (including the control device) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operation returned to normal without operator action, or any necessary follow-up actions to return operation to within the indicator ranges.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (9) The CAM plan for monitoring the capture efficiency of the control equipment for this emissions unit has been developed for the monitoring of the duct static pressure at a location upstream (i.e. the vacuum side) of the primary fan in each capture device (enclosure) or upstream of the fan that is common to multiple capture devices (enclosures) during operation of this emissions unit. The CAM performance indicator value for the duct static pressure is specified in d)(7). When the duct static pressure is outside of the indicator value specified in d)(7), corrective action (including, but not limited to, an evaluation of the enclosure(s)) will be required.

Upon detecting an excursion of the duct static pressure specified in d)(7), the owner or operator shall restore operation of the emissions unit (including the capture and control device) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operation returned to normal without operator action, or any necessary follow-up actions to return operation to within the indicator ranges.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)



- (10) If a determination is made by the Administrator or Ohio EPA that the permittee has not used acceptable procedures in response to an excursion or exceedance based on the results of a determination made under 40 CFR Part 64.7(d)(2), the permittee may be required to develop a Quality Improvement Plan (QIP) consistent with the requirements of 40 CFR Part 64.8.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

e) Reporting Requirements

- (1) The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the use of noncomplying coatings when the emissions unit was operating according to the specified requirements in b)(2)a.i. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(B)(3)(g))

- (2) The permittee shall notify the Hamilton County Department of Environmental Services in writing of any daily record showing that the calculated, controlled VOC emission rate exceeds the applicable pounds of VOC per gallon of solids limitation when the emissions unit was operating according to the specified requirements in b)(2)a.ii. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 45 days following the end of the calendar month.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(B)(3)(k))

- (3) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. each 3-hour block of time, when the emissions unit was in operation, when the combustion temperature within the regenerative thermal oxidizer was below the acceptable limit specified in d)(6) of these terms and conditions;
  - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the regenerative thermal oxidizer when required in b)(2)a.ii. or b)(2)a.iii. of these terms and conditions;
  - c. each 3-hour blocks of time, when the emissions unit was in operation, during which the duct static pressure was not maintained at the minimum pressure differential of 0.007 inches of water;
  - d. each incident of deviation described in "a", "b", or "c" (above) where a prompt investigation was not conducted;
  - e. each incident of deviation described in "a", "b", or "c" where prompt corrective action, that would bring the emissions unit into compliance and/or the temperature within the regenerative thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and



- f. each incident of deviation described in “a”, ”b”, or “c” where proper records were not maintained for the investigation and/or the corrective action(s).

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-15-03(C), and 40 CFR Part 64)

f) Testing Requirements

- (1) Compliance with the emission limitations specified in b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

2.8 pounds of VOC per gallon of coating for basecoats, as applied, excluding water and exempt solvents; and

4.2 pounds of VOC per gallon of coating for interior body coatings, as applied, excluding water and exempt solvents

Applicable Compliance Method:

Compliance with the VOC content limitations specified above shall be determined by the record keeping requirements specified in d)(1). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to Method 24 as outlined in 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-10(B))

b. Emission Limitations:

4.5 pounds of VOC per gallon of solids for basecoats; and

9.8 pounds of VOC per gallon of solids for interior body coatings.

Applicable Compliance Method:

USEPA Methods 24 and 24A shall be used to determine the VOC contents, solids contents, or density for (a) coatings and (b) flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to Method 24 as outlined in 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method



24 or 24A.

In order to demonstrate compliance with the pounds of VOC per gallon of solids limitation, the controlled VOC mass emissions rate shall be calculated using the VOC and solids content of coatings as determined above and the results of capture and control efficiency testing as required in f)(2) below. The method of calculation is specified in d)(2) of these terms and conditions.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-10(B), and OAC rule 3745-21-10(C))

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. the emission testing shall be conducted within 3 months after issuance of this permit;
  - b. the emission testing shall be conducted to demonstrate compliance with the pounds of VOC per gallon of solids limitation requirements specified in b)(2)a.ii. and/or the requirements specified in b)(2)a.iii. for overall control efficiency of not less than 81% and a destruction efficiency of not less than 90%, by weight, of all VOC emissions entering the control device;
  - c. the permittee shall record the temperature within the combustion chamber of the regenerative thermal oxidizer during each three one-hour compliance runs. At a minimum, the temperature shall be recorded at 15 minute intervals. These averages shall be used to determine the acceptable combustion temperature specified in d(6);
  - d. 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.);
  - e. 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;
  - f. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Hamilton County Department of Environmental Services;
  - g. no later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of



Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the 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 Hamilton County Department of Environmental Services' refusal to accept the results of the emission test(s)

- h. personnel from the Hamilton County Department of Environmental Services 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; and
- i. 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 Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services.

(Authority for term: OAC rule 3745-77-07(C)(1) OAC rule 3745-21-10(A), OAC rule 3745-21-10(C), and 40 CFR Part 64)

g) **Miscellaneous Requirements**

- (1) The total enclosures 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 when coating is in progress, except when product quality assurance checks and maintenance operations are performed. The permittee shall also maintain an interlock device on the total enclosure above the coating applicator rolls such that the enclosure cannot be compromised when the emissions unit is in operation.

(Authority for term: OAC rule 3745-77-07(A)(1) and 40 CFR Part 64)



**6. Emissions Unit Group - Conventional Coaters 9 and 10: K050, K051,**

**EU ID Operations, Property and/or Equipment Description**

K050 Conventional Coater with PTE and Incinerator

K051 Conventional Coater with PTE and Incinerator

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) d)(10), d)(11), d)(12), d)(13), and e)(4).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) (PTI 14-04545, K050) (PTI 14-04555, K051)	<p>Volatile organic compound (VOC) emissions shall not exceed 76.9 pounds per day*, including cleanup materials.</p> <p>See b)(2)a., b)(2)b., b)(2)c., and c)(3).</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(D).</p> <p>*The daily emission limitation outlined above is based upon the emissions unit's potential to emit (PTE). Therefore, no daily records are required to demonstrate compliance with this limitation.</p>
b.	OAC rule 3745-31-05(D)  Synthetic Minor for VOC to Avoid Major Modification	<p>VOC emissions shall not exceed 13.6 tons per year (TPY), including cleanup materials, based upon a rolling, 12-month summation.</p> <p>See c)(1) and c)(2).</p>
c.	OAC rule 3745-21-09(D)	The emission limitations specified in this rule are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
d.	40 CFR Part 64 Compliance Assurance Monitoring (CAM)	See d)(2) through d)(9), e)(3), f)(2), and g)(1).



(2) Additional Terms and Conditions

- a. This emissions unit shall be equipped with permanent total enclosures followed by a thermal incinerator with 95% destruction efficiency thus giving an overall control efficiency of 95%.
- b. The VOC content of the coatings employed shall not exceed 6.3 pounds of VOC per gallon of coating, as applied, excluding water and exempt solvents.
- c. The VOC content of the cleanup materials employed shall not exceed 9.1 pounds of VOC per gallon of cleanup material, as applied.

c) Operational Restrictions

- (1) The maximum annual coating usage rate for this emissions unit shall not exceed 77,800 gallons of coating per year, excluding water and exempt solvents, based upon a rolling, 12-month summation of the coating usage figures.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(D), and OAC rule 3745-31-05(A)(3))

- (2) The maximum annual cleanup material usage rate for this emissions unit shall not exceed 6,100 gallons per year, based upon a rolling, 12-month summation of the cleanup material usage figures.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(D), and OAC rule 3745-31-05(A)(3))

- (3) The average combustion temperature within the thermal incinerator, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(A)(3))

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information on a monthly basis:
- a. The name and identification number of each coating, as applied;
  - b. The VOC content of each coating in pounds per gallon, excluding water and exempt solvents, as applied;
  - c. The amount of each coating, in gallons, excluding water and exempt solvents, employed;
  - d. The name and identification of each cleanup material employed;
  - e. The number of gallons of each cleanup material employed;
  - f. The VOC content of each cleanup material, in pounds per gallon, as applied;



- g. The calculated, controlled VOC emission rate for all coatings and cleanup materials, in pounds or tons. The controlled VOC emission rate shall be calculated using the overall control efficiency as determined during the most recent emission test that demonstrated that the emissions unit was in compliance;
- h. The total VOC emissions, in tons; and
- i. The rolling, 12-month summation of the VOC emissions, in tons, for this emissions unit.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(D), and OAC rule 3745-31-05(A)(3))

- (2) The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature within the thermal incinerator when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within  $\pm 1$  percent of the temperature being measured or  $\pm 5$  degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual(s).

In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable combustion temperature within the thermal oxidizer, during any period of time when the emissions unit is in operation, shall not be less than 1400 degrees Fahrenheit.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64)

- (3) The permittee shall operate, and maintain equipment to continuously monitor the pressure differential in the permanent total enclosure above the coating applicator rolls and the pressure differential in the drying oven, as representative of the oven entrance enclosure, during operation of this emissions unit. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the difference in pressure at each monitoring location on daily basis.

As specified in the Method 204 requirements, the permanent total enclosures and drying oven shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 inches of H<sub>2</sub>O), whenever the emissions unit is in operation except when product quality assurance checks and maintenance operations are performed.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64)

- (4) The permittee shall collect and record the following information each day the thermal oxidizer and capture device(s) are required to demonstrate compliance with the VOC limitation(s) contained in this permit:



- a. all 3-hour blocks of time, when the emissions unit controlled by the thermal oxidizer was in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance;
- b. all 3-hour blocks of time during which the duct static pressure is not maintained at or above the minimum pressure differential of 0.007 inches of water, as a three-hour average; and
- c. a log or record of the operating time for the capture (collection) system, thermal oxidizer, monitoring equipment, and the associated emissions unit.

These records shall be maintained at the facility for a period of three years.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64)

- (5) Whenever the monitored average combustion temperature within the thermal oxidizer 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/limit 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 readings 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 range/limit is 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/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit 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) and 40 CFR Part 64)

- (6) Whenever the monitored value for the pressure differential deviates from the value specified below, 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 capture device (enclosure) within the acceptable value 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 pressure differential readings 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.



As specified in the Method 204 requirements, the permanent total enclosures and drying oven shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.013 mm Hg (0.007 inches of H<sub>2</sub>O), whenever the emissions unit is in operation except when product quality assurance checks and maintenance operations are performed.

This value is 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 this value based upon information obtained during future emission tests that demonstrate compliance with the allowable VOC emission rate for this emissions unit. In addition, approved revisions to this value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of minor permit modification.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64)

- (7) The CAM plan for monitoring the control efficiency of the thermal oxidizer controlling VOC emissions from this emissions unit has been developed for the monitoring of the combustion temperature within the thermal oxidizer. The CAM performance indicator for this temperature requirement is specified in d)(2). When the temperature is outside of the indicator limit specified in d)(2), corrective action (including, but not limited to, an evaluation of the thermal oxidizer) will be required.

Upon detecting an excursion of the thermal oxidizer temperature indicator limit specified in d)(2), the owner or operator shall restore operation of the emissions unit (including the control device) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operation returned to normal without operator action, or any necessary follow-up actions to return operation to within the indicator ranges.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (8) The CAM plan for monitoring the capture efficiency of the control equipment for this emissions unit has been developed for the monitoring of the pressure differential in the permanent total enclosure above the coating applicator rolls and the pressure differential in the drying oven during operation of this emissions unit. The CAM performance indicator value for the pressure differential is specified in d)(3). When the pressure differential is outside of the indicator value specified in d)(3), corrective action (including, but not limited to, an evaluation of the enclosure(s)) will be required.

Upon detecting an excursion of the pressure differential specified in d)(3), the owner or operator shall restore operation of the emissions unit (including the capture and control device) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the



likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operation returned to normal without operator action, or any necessary follow-up actions to return operation to within the indicator ranges.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (9) If a determination is made by the Administrator or Ohio EPA that the permittee has not used acceptable procedures in response to an excursion or exceedance based on the results of a determination made under 40 CFR Part 64.7(d)(2), the permittee may be required to develop a Quality Improvement Plan (QIP) consistent with the requirements of 40 CFR Part 64.8.

(Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64)

- (10) The permit-to-install (PTI) applications for these emissions units, K050 and K051, were evaluated based on the actual materials and the design parameters of the emissions unit's(s) exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
  - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
  - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "24" hours per day and "7" days per week, from that of 8 hours per day and 5 days per week. The resulting



calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or “worst case” toxic contaminant(s):

Toxic Contaminant: glycol ethers

TLV (ug/m3): 18,000

Maximum Hourly Emission Rate (lbs/hr): 1.04

Predicted 1-Hour Maximum Ground Level Concentration (ug/m3): 10.81

MAGLC (ug/m3): 428.6

The permittee has demonstrated that emissions of glycol ethers, from emissions units K050 and K051, are calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F).

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (11) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground level concentration”, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

- a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the “Toxic Air Contaminant Statute” will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a “modification”, the permittee shall apply for and obtain a final PTI prior to the change.



The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

(12) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):

- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
- b. the Maximum Acceptable Ground Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
- c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
- d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

(13) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

(14) 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 #14-04545, issued on March 22, 2007, and Permit to Install 14-04555, issued October 12, 2006: d)(1) through d)(13). The monitoring and record keeping requirements contained in the above-referenced Permits 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 Permits to Install.

e) Reporting Requirements

- (1) The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing exceedances of the coating and/or cleanup material VOC content limitations. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3))

- (2) The permittee shall submit deviation (excursion) reports which identify the following:
  - a. any exceedance of the rolling, 12-month coating usage limitation;
  - b. any exceedance of the rolling, 12-month cleanup material usage limitation; and
  - c. any exceedance of the rolling, 12-month VOC emissions limitation.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(D), and OAC rule 3745-31-05(A)(3))

- (3) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. each 3-hour block of time, when the emissions unit was in operation, when the combustion temperature within the thermal oxidizer was below the acceptable limit specified in d)(2) of these terms and conditions;
  - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the thermal oxidizer;
  - c. each 3-hour blocks of time, when the emissions unit was in operation, during which the pressure differential was not maintained at the minimum pressure differential of 0.007 inches of water;
  - d. each incident of deviation described in "a", "b", or "c" (above) where a prompt investigation was not conducted;
  - e. each incident of deviation described in "a", "b", or "c" where prompt corrective action, that would bring the emissions unit into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and
  - f. each incident of deviation described in "a", "b", or "c" where proper records were not maintained for the investigation and/or the corrective action(s).



The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64)

- (4) The permittee shall include any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground level concentration, in the quarterly deviation (excursion) reports. If no changes to the emissions, emissions unit(s), or the exhaust stack have been made, then the report shall include a statement to this effect.

(Authority for term: OAC rule 3745-77-07(C)(1), ORC 3704.03(F)(3)(c) and F(4), OAC rule 3745-114-01, and Option A, Engineering Guide #70)

- (5) The permittee shall submit annual reports which specify the total VOC emissions, in tons, for this emissions unit. These reports shall be submitted to Hamilton County Department of Environmental Services by January 31 of each year and shall cover the previous calendar year.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3))

- (6) 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 #14-04545, issued on March 22, 2007, and Permit to Install #14-04555, issued October 12, 2006: e)(1) through e)(5). The reporting requirements contained in the above-referenced Permits 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 Permits to Install.

f) Testing Requirements

- (1) Compliance with the emission limitations specified in b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

The VOC content of the coatings employed shall not exceed 6.3 pounds of VOC per gallon of coating, as applied, excluding water and exempt solvents.

The VOC content of the cleanup materials employed shall not exceed 9.1 pounds of VOC per gallon of cleanup material, as applied.

Applicable Compliance Method:

Compliance with the VOC content limitations specified above shall be determined by the record keeping requirements specified in d)(1) of these terms and conditions. USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings/cleanup materials and (b) flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to Method 24 as outlined in 40 CFR Part 60, Appendix A, an owner or operator determines that



Method 24 or 24A cannot be used for a particular coating, cleanup material, or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating, cleanup material, or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-10(B), and OAC rule 3745-31-05(A)(3))

b. Emission Limitation:

VOC emissions shall not exceed 76.9 pounds per day, including cleanup materials.

Applicable Compliance Method:

The daily emissions limitation specified above is based on the emissions unit's potential to emit and the operational parameters as provided in the PTI application 14-04545, submitted March 5, 1998 for emissions unit K050, and the PTI application 14-04555, submitted April 2, 1998 for emissions unit K051. This emission limitation was established by multiplying the emissions unit's maximum hourly coating usage rate (9.17 gallons per hour) by the maximum allowable VOC content (6.3 pounds per gallon) then by 24 hours per day, and adding that product to the total daily cleanup material emissions (maximum usage of 16.7 gallons per day multiplied by the maximum allowable VOC content of 9.1 pounds per gallon), and multiplying the resulting value by the required overall control efficiency (0.05). Compliance with this emission limitation shall be demonstrated based upon the records required pursuant to d)(1) and the emission testing requirements specified in f)(2) of this permit.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(A)(3))

c. Emission Limitation:

VOC emissions shall not exceed 13.6 tons per year (TPY), including cleanup materials, based upon a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the VOC emissions limitation specified above shall be determined by the record keeping requirements specified in d)(1) of these terms and conditions.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(D), and OAC rule 3745-31-05(A)(3))

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
  - a. the emission testing shall be conducted within 12 months after issuance of the permit.



- b. the emission testing shall be conducted to demonstrate compliance with the requirements specified in b)(2)a. for overall control efficiency of not less than 95% (100% capture by the PTE) and a destruction efficiency of not less than 95%, by weight, of all VOC emissions entering the control device.
- c. the permittee shall record the temperature within the combustion chamber of the thermal oxidizer during each three one-hour compliance runs. At a minimum, the temperature shall be recorded at 15 minute intervals. These averages shall be used to determine the acceptable combustion temperature specified in d(2);
- d. 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.)
- e. 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.
- f. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Hamilton County Department of Environmental Services.
- g. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the 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 Hamilton County Department of Environmental Services' refusal to accept the results of the emission test(s).
- h. personnel from the Hamilton County Department of Environmental Services 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.
- i. 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 Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services.



(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64)

- (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 #14-04545, issued on March 22, 2007, and Permit to Install #14-04555, issued October 12, 2006: f)(1)a. through f)(1)c., and f)(2)a. through f)(2)i. The testing requirements contained in the above-referenced Permits 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 Permits to Install.

g) Miscellaneous Requirements

- (1) The permanent total enclosures 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 when coating is in progress, except when product quality assurance checks and maintenance operations are performed. The permittee shall also maintain an interlock device on the permanent total enclosure above the coating applicator rolls such that the enclosure cannot be compromised when the emissions unit is in operation.

(Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-31-05(A)(3), and 40 CFR Part 64)



**7. Emissions Unit Group - Litho Lines 1 and 2: K007, K008**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
K007	Conventional 3-Piece Printing and Overvarnish Coating Line with RTO
K008	Conventional 3-Piece Printing and Overvarnish Coating Line with RTO

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. 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 3745-21-09(B)(6)	See b)(2)a.
b.	OAC rule 3745-21-09(D)(2)(b)	See b)(2)b.

(2) Additional Terms and Conditions

a. In lieu of employing compliant coatings in this emissions unit as specified in b)(2)b. below, the VOC capture and control equipment for this emissions unit shall not provide less than an 81% reduction, by weight, in overall VOC emissions from the coating line, and the control equipment (regenerative thermal oxidizer) shall provide an efficiency (percent destruction) of not less than 90%, by weight, for VOC emissions vented to the control equipment.

b. The VOC content of the coatings employed shall not exceed 2.8 pounds of VOC per gallon of coating, as applied, excluding water and exempt solvents.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month whenever the emissions unit is in operation and the regenerative thermal oxidizer is not being employed:

a. the name and identification number of each coating, as applied; and

b. the VOC content of each coating (excluding water and exempt solvents), as applied.



(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(B)(3)(f))

- (2) The permittee shall operate and maintain a continuous temperature monitor and recorder to measure and record the combustion temperature within the regenerative thermal oxidizer when the emissions unit is in operation and complying with the specified requirement in b)(2)a. of these terms and conditions. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within  $\pm 1$  percent of the temperature being measured or  $\pm 5$  degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual(s).

In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable range for the average combustion temperature within the regenerative thermal oxidizer for any 3-hour block of time when the emissions unit is in operation shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-09(B)(3)(l), and OAC rule 3745-21-09(B)(3)(n))

- (3) The permittee shall operate and maintain equipment to continuously monitor and record the duct static pressure at a location upstream (i.e. the vacuum side) of the primary fan in each capture device (enclosure) or upstream of the fan that is common to multiple capture devices (enclosures) during operation of this emissions unit. Units shall be in inches of water gage. The monitoring equipment shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

In order to maintain compliance with the applicable emission limitations contained in this permit, the total enclosure shall be maintained under negative pressure, at a minimum vacuum static pressure that is not less than 0.013 mm Hg (0.007 inches of H<sub>2</sub>O gage) as established in Method 204 of Appendix M to 40 CFR Part 51, whenever coating is in progress, except when product quality assurance checks and maintenance operations are performed.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-09(B)(3)(l), and OAC rule 3745-21-09(B)(3)(n))

- (4) The permittee shall collect and record the following information each day the regenerative thermal oxidizer and capture device(s) are required to demonstrate compliance with the VOC limitation(s) contained in this permit:
  - a. all 3-hour blocks of time, when the emissions unit controlled by the regenerative thermal oxidizer was in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit was in compliance;



- b. all 3-hour blocks of time during which the duct static pressure is not maintained at or above the minimum pressure differential of 0.007 inches of water, as a three-hour average; and
- c. a log or record of the operating time for the capture (collection) system, regenerative thermal oxidizer, monitoring equipment, and the associated emissions unit.

These records shall be maintained at the facility for a period of three years.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(B)(3)(I))

- (5) Whenever the monitored average combustion temperature within the regenerative thermal oxidizer deviates from the range specified below, 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/limit 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 readings 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.

In order to maintain compliance with the applicable emission limitations contained in this permit, the acceptable range for the average combustion temperature within the



regenerative thermal oxidizer for any 3-hour block of time when the emissions unit is in operation shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance.

The temperature limit is 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 limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature limit 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) Whenever the monitored average duct static pressure deviates from the value specified below, 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 capture device (enclosure) within the acceptable value 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 duct static pressure readings 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.



In order to maintain compliance with the applicable emission limitations contained in this permit, the total enclosure shall be maintained under negative pressure, at a minimum vacuum static pressure that is not less than 0.013 mm Hg (0.007 inches of H<sub>2</sub>O gage) as established in Method 204 of Appendix M to 40 CFR Part 51, whenever coating is in progress, except when product quality assurance checks and maintenance operations are performed.

This value is 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 this value based upon information obtained during future emission tests that demonstrate compliance with the allowable VOC emission rate for this emissions unit. In addition, approved revisions to this value will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of minor permit modification.

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

e) Reporting Requirements

- (1) The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the use of noncomplying coatings when the control equipment was not employed. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(B)(3)(g))

- (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
  - a. all 3-hour blocks of time during which the average combustion temperature within the regenerative thermal oxidizer when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated that the emissions unit was in compliance;
  - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the regenerative thermal oxidizer when required in b)(2)a. of these terms and conditions;
  - c. all three-hour blocks of time, when the emissions unit was in operation, during which the duct static pressure was not maintained at the minimum pressure differential of 0.007 inches of water;
  - d. each incident of deviation described in "a", "b", or "c" (above) where a prompt investigation was not conducted;
  - e. each incident of deviation described in "a", "b", or "c" where prompt corrective action, that would bring the emissions unit into compliance and/or the



temperature within the regenerative thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and

- f. each incident of deviation described in "a", "b", or "c" where proper records were not maintained for the investigation and/or the corrective action(s).

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-15-03(B)(1)(a), OAC rule 3745-21-09(B)(3)(m)), and OAC rule 3745-15-03(C))

f) Testing Requirements

- (1) Compliance with the emission limitations specified in b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

2.8 pounds of VOC per gallon of coating for overvarnish, as applied, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance with the VOC content limitations specified above shall be determined by the record keeping requirements specified in d)(1). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to Method 24 as outlined in 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-10(B))

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

- a. the emission testing shall be conducted within 6 months prior to permit expiration;
- b. the emission testing shall be conducted to demonstrate compliance with the overall control efficiency of not less than 81% and a destruction efficiency of not less than 90%, by weight, of all VOC emissions entering the control device;
- c. 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.);

- d. 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;
- e. the permittee shall record the temperature within the combustion chamber of the regenerative thermal oxidizer during each three one-hour compliance runs. At a minimum the temperature shall be recorded at 15 minute intervals. These averages shall be used to determine the indicator range listed in d(2);
- f. the test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Hamilton County Department of Environmental Services;
- g. not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the 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 Hamilton County Department of Environmental Services' refusal to accept the results of the emission test(s);
- h. personnel from the Hamilton County Department of Environmental Services 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; and
- i. 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 Hamilton County Department of Environmental Services 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 Hamilton County Department of Environmental Services.

(Authority for term: OAC rule 3745-77-07(C)(1) OAC rule 3745-21-10(A), OAC rule 3745-21-10(C))

g) Miscellaneous Requirements

- (1) The total enclosures 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 when coating is in progress, except when product quality assurance checks and maintenance operations are performed. The permittee



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Division of Air Pollution Control

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shall also maintain an interlock device on the total enclosure above the coating applicator rolls such that the enclosure cannot be compromised when the emissions unit is in operation.

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



**8. Emissions Unit Group - Side Seam Lines 1 - 5: K028, K029, K030, K031, K033,**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
K028	Side Seam Stripe Applicator 2
K029	Side Seam Stripe Applicator 3
K030	Side Seam Stripe Applicator 1
K031	Side Seam Stripe Applicator 4
K033	Side Seam Stripe Applicator 5

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. 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 3745-21-09(D)(2)d)	See b)(2)a.

(2) Additional Terms and Conditions

a. The VOC content of the coatings employed shall not exceed 5.5 pounds of VOC per gallon of coating, as applied, excluding water and exempt solvents.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month whenever the emissions unit is in operation:

a. the name and identification number of each coating, as applied; and

b. the VOC content of each coating (excluding water and exempt solvents), as applied.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(B)(3)(f))

e) Reporting Requirements

(1) The permittee shall notify the Hamilton County Department of Environmental Services in writing of any monthly record showing the use of noncomplying coatings. The



notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(B)(3)(g))

f) Testing Requirements

(1) Compliance with the emission limitations specified in b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

5.5 pounds of VOC per gallon of coating for side seam coatings, as applied, excluding water and exempt solvents.

Applicable Compliance Method:

Compliance with the VOC content limitations specified above shall be determined by the record keeping requirements specified in d)(1). USEPA Methods 24 and 24A shall be used to determine the VOC contents for (a) coatings and (b) flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to Method 24 as outlined in 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating or ink to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-10(B))

g) Miscellaneous Requirements

(1) None.



9. Emissions Unit Group - UV Litho Lines 6 and 7: K049, K052,

EU ID	Operations, Property and/or Equipment Description
K049	UV Printing Press with Coater
K052	UV Printing Press with Coater

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) g)(1)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) (PTI 14-06015)  Voluntary Restrictions to Avoid BAT and Non-Attainment New Source Review	Volatile organic compound (VOC) emissions shall not exceed 4.0 tons per year (TPY), as a rolling 12-month summation.  See b)(2)a. and c)(1).
b.	OAC rule 3745-21-09(D)(2)(b)	See b)(2)b.

(2) Additional Terms and Conditions

a. The Permit to Install 14-06015 for this air contaminant source takes into account the following voluntary restrictions 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 VOC emissions to 4.0 TPY, as a rolling 12-month summation.

b. The permittee shall not employ coatings in this emissions unit with a VOC content greater than 2.8 pounds per gallon of coating, as applied, excluding water and exempt solvents.

c) Operational Restrictions

(1) The maximum annual VOC input, as applied, of materials employed in this emissions unit shall not exceed 7.8 tons per year as a rolling 12-month summation. The VOC input shall be determined by multiplying the number of gallons of coating and cleanup solvent employed per month by the VOC content of each coating and the cleanup solvent in



pounds per gallon, excluding water and exempt solvents (see record keeping requirements in terms and conditions d)(1)).

(Authority for term: OAC rule 3745-77-07(A)(1) and OAC rule 3745-31-05(D))

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following information each month for this emissions unit:

- a. the name and identification number of each coating and cleanup material, as applied;
- b. the VOC content of each coating and cleanup material in pounds of VOC per gallon, excluding water and exempt solvents, as applied;
- c. the water and exempt solvent content of each coating, as applied, in percent by weight;
- d. the amount of each coating employed, in gallons, excluding water and exempt solvents;
- e. the coating-specific release factor, as provided in US EPA technical support documents and control technique guidelines for offset lithographic printing, for each coating employed;
- f. the amount of each cleanup material employed, in gallons;
- g. the weight percent solids and weight percent water of each waste cleanup material collected;
- h. the amount of each waste cleanup material collected, in gallons of solvent less solids and water;
- i. the monthly VOC input, in tons, determined by multiplying the VOC content of each coating from b. by the gallon usage in d. plus the VOC content of each cleanup material from b. multiplied by the gallon usage from f. This value is then divided by 2000 pounds per ton;
- j. the monthly VOC emissions (the summation of the VOC emission calculations for each coating and cleanup material employed. See f)(1)b. for calculation methodology);
- k. the updated rolling, 12-month summation total, in tons, of VOC input (the total amount of VOC input for the current month recorded in line i. plus the total amount of VOC input for the previous eleven calendar months); and
- l. the updated rolling, 12-month summation total, in tons, of VOC emissions (the total amount of VOC emissions for the current month recorded in line j. plus the total amount of VOC emissions for the previous eleven calendar months).

(Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-21-09(B)(3)(f), and OAC rule 3745-31-05(D))



- (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 #14-06015, issued on October 21, 2008: 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 notify the Hamilton County Department of Environmental Services in writing of any monthly record showing a coating VOC content greater than 2.8 pounds VOC per gallon, as applied, excluding water and exempt solvents. The notification shall include a copy of such record and shall be sent to the Hamilton County Department of Environmental Services within 30 days following the end of the calendar month in which the use of non-complying coatings was recorded.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-21-09(B)(3)(g))

- (2) The permittee shall submit quarterly deviation (excursion) reports to the Hamilton County Department of Environmental Services which identify all exceedances of the following:
  - a. an identification of all exceedances of the rolling 12-month VOC input operational restriction as specified in c)(1); and
  - b. an identification of all exceedances of the rolling 12-month emission limitation for VOC as specified in b)(1).

If no deviations occurred during the reporting period, the permittee shall state so in the report.

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D))

- (3) 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 #14-06015, issued on October 21, 2008: e)(1) and e)(2). 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 limitations specified in b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

The VOC content of the coatings employed shall not exceed 2.8 pounds per gallon, as applied, excluding water and exempt solvents.

Applicable Compliance Method:



Compliance with the VOC content limitations specified above shall be determined by the record keeping requirements specified in d)(1). USEPA Methods 24 and 24A shall be used to determine the VOC content for coatings. If, pursuant 40 CFR Part 60, Appendix A, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating, the permittee shall so notify the Administrator of the USEPA and shall use formulation data for that coating to demonstrate compliance until the USEPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A. USEPA Method 24 or formulation data shall be used to determine the VOC contents of the cleanup materials.

(Authority for term: OAC rule 3745-77-07(C)(1), and OAC rule 3745-21-10(B))

b. Emission Limitation:

Volatile organic compound (VOC) emissions shall not exceed 4.0 tons per year (TPY), as a rolling 12-month summation.

Applicable Compliance Method:

The annual VOC emissions limitation established through OAC rule 3745-31-05(D) was developed from the following equations using the information submitted by the permittee in the revised permit to install (PTI) application 14-06015, submitted on March 06, 2008:

$$\{(45,875 \text{ gallons/year of UV Ink, excluding water and exempt solvents}) \times (0.08 \text{ lbs VOC/gal}) \times (0.05 \text{ Release factor}) \times (1 \text{ Ton}/2000 \text{ lbs})\} +$$

$$\{(1,825 \text{ gallons/year of Fountain Solution, excluding water and exempt solvents}) \times (0.15 \text{ lbs VOC/gal}) \times (1 \text{ Ton}/2000 \text{ lbs})\} +$$

$$\{(33,288 \text{ gallons/year of UV Overvarnish, excluding water and exempt solvents}) \times (0.10 \text{ lbs VOC/gal}) \times (1 \text{ Ton}/2000 \text{ lbs})\}$$

$$= 1.9 \text{ TPY VOC}$$

$$\{(1,095 \text{ gallons/year of cleanup material*}, \text{ excluding water and exempt solvents}) \times (7.54 \text{ lbs VOC/gal}) \times (0.5 \text{ Release factor}) \times (1 \text{ Ton}/2000 \text{ lbs})\}$$

$$= 2.1 \text{ TPY VOC}$$

$$\text{Total VOC emissions considering voluntary restrictions} = 1.9 + 2.1 = 4.0 \text{ TPY}$$

\* The permittee may subtract out the cleanup material which is collected for sale, reuse, or disposal if the records are maintained as outlined in d)(1).

(Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-31-05(D))

- (2) Compliance with the VOC input limitation in c)(1) shall be demonstrated by the record keeping required in d)(1).
- (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



#14-06015, issued on October 21, 2008: f)(1)a. and f)(1)b. 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) Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.

(Authority for term: OAC rule 3745-77-07(C)(1) and ORC 3704.03(F)(3)(c) and F(4))