

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Craig W. Butler, Interim Director

1/22/2014

Certified Mail

Mike Fienberg  
All-Foils, Inc.  
16100 Imperial Parkway  
Strongsville, OH 44149

Yes	TOXIC REVIEW
Yes	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
Yes	MODELING SUBMITTED
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1318558632  
Permit Number: P0115787  
Permit Type: OAC Chapter 3745-31 Modification  
County: Cuyahoga

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio Environmental Protection Agency (EPA) Weekly Review and the local newspaper, The Plain Dealer. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall and Cleveland Division of Air Quality  
Permit Review/Development Section 2nd Floor  
Ohio EPA, DAPC 75 Erieview Plaza  
50 West Town Street Suite 700 Cleveland, OH 44114  
PO Box 1049  
Columbus, Ohio 43216-1049

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Cleveland Division of Air Quality at (216)664-2297.

Sincerely,

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

Cc: U.S. EPA Region 5 Via E-Mail Notification  
CDAQ; Pennsylvania; Canada





## Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination (FEPTIO to avoid Title V and NNSR)

Netting Determination

2. Source Description:

All Foils Inc is located at 16100 Imperial Parkway in Strongsville OH. Emissions units K001 and K002 are single-head rotogravure printing lines for printing of metal foils and films. Emissions unit K003 is a double-head rotogravure printing line for printing of metal foils and films. There have been no physical changes to the emissions units, however, an adjustment has been made to identify the previous K002 as two separate printing lines, now K002 and K003, rather than one printing line. Each line has an unwind station and a rewind station and they can operate independently of each other. All Foils is also requesting an increase in the allowable material usage. The facility has a regenerative thermal oxidizer (RTO) with permanent total enclosure but the current plan is to operate without using the controls unless the requirements of OAC rule 3745-21-09(Y)(4)(a) are triggered or if they use coatings on K002 and K003 that contain greater than 8% by weight toluene.

3. Facility Emissions and Attainment Status:

The actual facility-wide emissions for calendar year 2013 were 21.35 tpy VOC (from coatings and inks), 1.66 tpy VOC (from cleanup material), and 3.45 tpy of total combined HAPs. Cuyahoga County is currently in attainment for all criteria pollutants except PM<sub>2.5</sub> and ozone, and is currently in partial nonattainment for lead.

4. Source Emissions:

All Foils has the potential to emit more than 100 tpy of VOC, 10 tpy of a single HAP, and more than 25 tpy of combined HAPs. This potential to emit would make All Foils subject to the MACT, Title V, and Nonattainment New Source Review (NNSR) requirements. Per section 3 above, the actual facility-wide emissions are well under these thresholds. To avoid the MACT, Title V, and NNSR requirements, the facility has requested federally enforceable limits be placed on limiting VOC material usage and emissions to 24.9 tpy (for each K001, K002, and K003) per rolling, 12-month summation, and limiting facility-wide cleanup material usage to 595 gallons per rolling 12-months which limits VOC emissions from cleanup to 2.0 tpy (combined for K001, K002, and K003) based on a rolling, 12-month summation of emissions. The permit terms state that if the actual VOC emissions from K001, K002, or K003 equal or exceed the 25.0 tpy threshold, then OAC rule 3745-21-09(Y)(4)(a) will be in effect for the emissions unit(s) which requires the use of either the RTO and/or employing coatings that comply with the VOC content rule limits.

5. Conclusion:

All Foils has requested federally enforceable limits to be placed on coating and clean-up material usage (see above) on a rolling, 12-month summation basis; consequently, the facility will not be subject to the MACT, Title V, or NNSR permitting requirements. The total VOC emissions are limited to 76.7 tpy, the single HAP emissions are limited to 9.9 tpy, and the combined HAP emissions are limited to 24.9 tpy.



6. Please provide additional notes or comments as necessary:

This permit is a Chapter 31 modification for emissions units K001, K002 (now separated into K002 and K003), and K003. The facility has requested an increase in the amount of material usage with a corresponding increase in the allowable emission rate. The company has demonstrated through its records that the actual uncontrolled emissions are below the major source thresholds that trigger the MACT, Title V, and NNSR requirements. The uncontrolled emissions for each emissions unit are also currently below the 25 tpy threshold for triggering the requirements of OAC rule 3745-21-09(Y)(4)(a).

7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	76.7*
Single HAP	9.9
Combined HAPs	24.9

\*If the actual VOC emissions from K001, K002, and/or K003 equal or exceed 25.0 tpy as demonstrated in the rolling, 12-month records, then OAC rule 3745-21-09(Y)(4)(a) will thereafter be in effect for that emissions unit(s).

PUBLIC NOTICE  
1/22/2014 Issuance of Draft Air Pollution Permit-To-Install and Operate

All-Foils, Inc.

16100 Imperial Parkway,

Strongsville, OH 44149

Cuyahoga County

FACILITY DESC.: Metal Service Centers and Other Metal Merchant Wholesalers

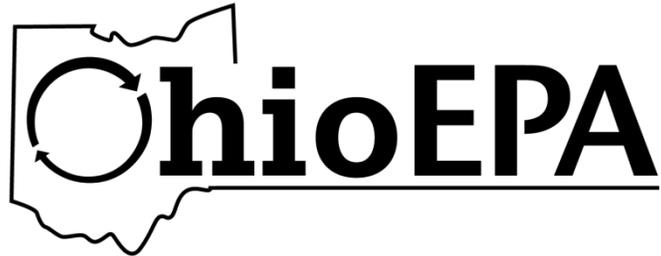
PERMIT #: P0115787

PERMIT TYPE: OAC Chapter 3745-31 Modification

PERMIT DESC: FEPTIO Chapter 31 modification to identify three printing lines (K001, K002, and K003) that were previously identified as just two printing lines, to increase the allowable VOC emissions to 24.9 tpy per rolling 12-months per emissions unit, and incorporate requirements to employ the regenerative thermal oxidizer and permanent total enclosure if the requirements of OAC rule 3745-21-09(Y)(4)(a) are triggered for any of the printing lines.

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitonline.aspx> by entering the permit # or: David Hearne, Cleveland Division of Air Quality, 2nd Floor 75 Erieview Plaza, Cleveland, OH 44114. Ph: (216)664-2297





**DRAFT**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
All-Foils, Inc.**

Facility ID:	1318558632
Permit Number:	P0115787
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	1/22/2014
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
All-Foils, Inc.

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**Draft Permit-to-Install and Operate**

All-Foils, Inc.

**Permit Number:** P0115787

**Facility ID:** 1318558632

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

## Authorization

Facility ID: 1318558632  
Application Number(s): A0046378  
Permit Number: P0115787  
Permit Description: FEPTIO Chapter 31 modification to identify three printing lines (K001, K002, and K003) that were previously identified as just two printing lines, to increase the allowable VOC emissions to 24.9 tpy per rolling 12-months per emissions unit, and incorporate requirements to employ the regenerative thermal oxidizer and permanent total enclosure if the requirements of OAC rule 3745-21-09(Y)(4)(a) are triggered for any of the printing lines.  
Permit Type: OAC Chapter 3745-31 Modification  
Permit Fee: \$600.00 *DO NOT send payment at this time, subject to change before final issuance*  
Issue Date: 1/22/2014  
Effective Date: To be entered upon final issuance  
Expiration Date: To be entered upon final issuance  
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

All-Foils, Inc.  
16100 Imperial Parkway  
Strongsville, OH 44149

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Cleveland Division of Air Quality  
2nd Floor  
75 Erieview Plaza  
Cleveland, OH 44114  
(216)664-2297

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and Federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler  
Interim Director



## Authorization (continued)

Permit Number: P0115787

Permit Description: FEPTIO Chapter 31 modification to identify three printing lines (K001, K002, and K003) that were previously identified as just two printing lines, to increase the allowable VOC emissions to 24.9 tpy per rolling 12-months per emissions unit, and incorporate requirements to employ the regenerative thermal oxidizer and permanent total enclosure if the requirements of OAC rule 3745-21-09(Y)(4)(a) are triggered for any of the printing lines.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

**Group Name: printing lines**

<b>Emissions Unit ID:</b>	<b>K001</b>
Company Equipment ID:	Line 1
Superseded Permit Number:	P0106657
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K002</b>
Company Equipment ID:	Line 2
Superseded Permit Number:	P0106657
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>K003</b>
Company Equipment ID:	Line 3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Draft Permit-to-Install and Operate**

All-Foils, Inc.

**Permit Number:** P0115787

**Facility ID:** 1318558632

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

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the “Authorization” page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Cleveland Division of Air Quality in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit 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.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.



**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



**Draft Permit-to-Install and Operate**

All-Foils, Inc.

**Permit Number:** P0115787

**Facility ID:** 1318558632

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

## **B. Facility-Wide Terms and Conditions**



**Draft Permit-to-Install and Operate**

All-Foils, Inc.

**Permit Number:** P0115787

**Facility ID:** 1318558632

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

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.



**Draft Permit-to-Install and Operate**

All-Foils, Inc.

**Permit Number:** P0115787

**Facility ID:** 1318558632

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

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



**1. Emissions Unit Group -printing lines: K001,K002,K003,**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
K001	Line 1-Genick rotogravure/flexographic printing line for metal and plastic substrates (38-inch coating head and one dryer)
K002	Line 2-Genick rotogravure/flexographic printing line for metal and plastic substrates (54-inch coating head and one dryer)
K003	Line 3 - rotogravure/flexographic printing line for metal and plastic substrates (two 54-inch coating heads, one of which is a laminator, and two dryers)

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. d)(10), d)(11), d)(12), and d)(13)

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. b)(1)d., d)(1), d)(2), d)(3), e)(4), f)(1)b., f)(1)c., f)(1)d., and f)(1)e.

b) Applicable Emissions Limitations and/or Control Requirements

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

	<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
a.	OAC rule 3745-31-05(A)(3) The terms and conditions of this permit supersede those of FEPTIO P0106657 issued 12/8/2011.	The requirements of this rule include compliance with the requirement of OAC rule 3745-21-09(Y)(2)(d), OAC rule 3745-21-09(Y)(4)(a), OAC rule 3745-21-09(Y)(4)(b), and OAC rule 3745-31-05(D)(1)(b).
b.	OAC rule 3745-21-09(Y)(2)(d)	See b)(2)a. and b)(2)b. below.
c.	OAC rule 3745-21-09(Y)(4)(a) and (b)	See b)(2)c., b)(2)d., and c)(3) below.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	OAC rule 3745-31-05(D)(1)(b) Synthetic Minor to avoid Title V, MACT Subparts KK and JJJJ and Nonattainment New Source Review.	<p>VOC emissions from all coatings and inks employed in each emissions unit shall not exceed 24.9 tpy based on a rolling, 12-month summation of emissions.</p> <p>The total uncontrolled VOC emissions from all cleanup materials employed in K001, K002, and K003 combined shall not exceed 2.0 tpy based on a rolling, 12-month summation of emissions.</p> <p>HAP emissions from all coatings, inks, and cleanup materials employed in K001, K002, and K003 combined shall not exceed 9.9 tpy for each individual HAP and 24.9 tpy for total combined HAPs based on a rolling, 12-month summation of emissions.</p>

(2) Additional Terms and Conditions

- a. This facility is exempt from the requirements of OAC rule 3745-21-09(Y)(1) because the total maximum usage of VOC in all coatings and inks employed in all flexographic, packaging rotogravure, and publication rotogravure printing lines within the facility (i.e. within K001, K002, and K003) is less than or equal to 100 tons per year.
- b. If at any time the facility's usage of VOC from all coatings and inks applied in all flexographic, packaging rotogravure, and publication rotogravure printing lines (i.e. within K001, K002, and K003) exceeds 100 tons per year, the facility will no longer be eligible for the exemption under OAC rule 3745-21-09(Y)(2)(d) and shall comply with the requirements of OAC rule 3745-21-09(Y)(1).
- c. If, during a calendar month, the actual VOC emissions from K001, K002, or K003 will be equal to or greater than 25.0 tpy (based on a rolling, 12-month summation of emissions) before the application of capture and control devices, that printing line shall comply with either or both of the following requirements [per OAC rule 3745-21-09(Y)(4)(a)] each day of operation during that calendar month and during all periods of operation thereafter:
  - i. Employ a control system [the existing permanent total enclosure (PTE) and regenerative thermal oxidizer (RTO)] in order to reduce VOC emissions by at least 75% overall control per OAC rule 3745-21-09(Y)(4)(a)(i)(c) for a press that was first installed on or after March 14, 1995 and that is controlled by an add-on air pollution control device whose first installation date was prior to April 2, 2009. Emissions units



K001, K002, and K003 were installed after March 14, 1995 and the PTE and RTO were installed prior to April 2, 2009.

- ii. Employ coatings and/or inks that do not exceed 0.16 pound of VOC per pound of coating or ink applied per OAC rule 3745-21-09(Y)(4)(a)(ii)(b). This VOC content limit can be met by averaging the VOC content of materials used on a single printing press, within a single printing line.
  
- d. If the existing PTE is used to comply with b)(2)c.i. above or c)(4) below, it shall be maintained in a manner that meets the criteria established for a PTE in 40 CFR, Part 51, Appendix M, Reference Method 204, and shall capture all of the VOC emissions from each printing line subject to those requirements.

The PTE shall totally enclose the application stations, coating reservoirs, and all areas from the application station to the oven and the control device. If it can be demonstrated that there is no leakage between the coating application, the oven, and the control device and that the oven and control device are operated under negative pressure, they do not need to be enclosed.

The PTE shall be maintained under negative pressure whenever each affected printing line is in operation, and shall have an average facial velocity of air through each natural draft opening of at least 200 feet per minute (3,600 m/hr). Compliance with the average facial velocity shall be demonstrated during a compliance test, by either using an air flow monitor or a differential pressure gauge at each natural draft opening, and maintaining the required facial velocity or the corresponding negative pressure. The PTE shall meet all of the following criteria if the capture efficiency of the enclosure and control device is to be assumed to be 100%:

- i. any natural draft opening shall be at least four equivalent opening diameters, or 4 times the diameter of the opening, from each VOC emitting point;
- ii. the total area of all natural draft openings shall not exceed 5 percent of the surface area of the enclosure's four walls, floor, and ceiling;
- iii. the direction of air flow through all natural draft openings shall be into the enclosure, with an average facial velocity of no less than 200 feet per minute (3,600 m/hr) or a pressure drop of 0.013 mm Hg (0.007 in. H<sub>2</sub>O);
- iv. all access doors and windows to the enclosure that do not meet the requirements of a natural draft opening and whose surface areas are not included in the 5 percent surface area determination in "ii", shall be completely closed to any air movement during process operations; and
- v. all VOC emissions shall be captured and contained for discharge through the control device.



c) Operational Restrictions

- (1) The maximum annual VOC material usage rate from all coatings and inks use facility-wide shall not exceed 100 tons/yr, based upon a rolling 12-month summation of the VOC material usage (total uncontrolled emission) rates. Since the VOC emissions can be considered to be equal to the VOC usage in the printing lines, ongoing compliance with the 100 tpy usage restriction will be demonstrated by tracking the total uncontrolled VOC emissions from K001, K002, and K003. The emissions units have been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the VOC material usage upon issuance of this permit.
- (2) The maximum annual clean-up material usage rate for the facility shall not exceed 595 gals/yr (less clean-up material sent off site for disposal, including recycling and reuse), based upon a rolling 12-month summation of the clean-up material usage and disposal rates. The emissions units have been in operation for more than 12 months and, as such, the permittee has existing records to generate the rolling, 12-month summation of the clean-up material usage upon issuance of this permit.
- (3) In accordance with OAC rule 3745-21-09(Y)(4)(b), the permittee shall minimize VOC emissions from the packaging rotogravure and flexographic packaging printing lines by incorporating the following work practice standards for cleaning materials:
  - a. cleaning materials and used shop towels shall be kept in closed containers; and
  - b. cleaning materials shall be conveyed from one location to another in closed containers or through pipes.
- (4) To ensure ongoing compliance with ORC 3704.03(F), the permittee shall not employ in K001 any coatings or inks containing toluene. In addition, the permittee shall not employ in K002 or K003 any coatings or inks containing more than 8%, by weight, of toluene without using the PTE and RTO to control the toluene emissions from all such coatings or inks.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information on a monthly basis for the inks and coatings applied in each emissions unit (i.e. separately for K001, K002, and K003):
  - a. the name and/or identification number of each coating and ink employed and an indication of whether or not each was vented to the RTO for control;
  - b. the amount, in gallons, of each coating and ink employed;
  - c. the VOC content of each coating and ink employed, in pounds per gallon;
  - d. the toluene content of each coating and ink employed, in % by weight;
  - e. the total uncontrolled VOC emissions, in tons, from all the coatings and inks employed (i.e., the summation of [b. \* c.] /2000 for all coatings and inks employed);



- f. the total uncontrolled VOC emissions, in tons, from all the coatings and inks employed that were not vented to the RTO for control (i.e., the summation of [b. \* c.] /2000 for all the coatings and inks employed that were not vented to the RTO);
  - g. the total controlled VOC emissions, in tons, from all the coatings and inks employed that were vented to the RTO for control (i.e., the summation of the products of [e. – f.] \* [1 – the overall control efficiency of the capture system and RTO, as determined during the most recent emission tests that demonstrated the emissions units were in compliance]);
  - h. the total VOC emissions (controlled and uncontrolled), in tons, from all the coatings and inks employed (i.e., the summation of [f. + g.]
  - i. the rolling, 12-month summation of the total VOC emissions (uncontrolled plus controlled), in tons, from all the coatings and inks employed; and
  - j. the rolling, 12- month summation of the total uncontrolled VOC emissions, in tons, from all the coatings and inks employed (summation of e., which is needed to determine if OAC rule 3745-21-09(Y)(4)(a) is triggered).
- (2) The permittee shall collect and record all the following information on a monthly basis for all the cleanup materials employed in K001, K002, and K003, combined.
- a. the name and/or identification number of each cleanup material employed;
  - b. the VOC content of each cleanup material employed, in pounds per gallon;
  - c. the amount, in gallons, of each cleanup material employed, and the total amount, in gallons, of all cleanup materials employed;
  - d. the amount, in gallons, of each cleanup material sent off-site for disposal (includes recycling and reuse), and the total amount, in gallons, of all cleanup materials sent off-site for disposal;
  - e. the total VOC emission rate from all cleanup materials employed, in pounds or tons, (the summation of [b. \* (c. – d.)] /2000 for all cleanup materials employed);
  - f. the rolling, 12-month summation of VOC emissions from all cleanup materials employed, excluding the VOC emissions from all the cleanup materials sent off-site for disposal, in tons; and
  - g. the rolling, 12-month summation of the cleanup material usage rates, excluding the amounts of cleanup materials sent off-site for disposal, in gallons.
- (3) The permittee shall collect and record the following information on a monthly basis for all the coatings, inks, and cleanup materials employed in K001, K002, and K003, combined:
- a. the name and/or identification number of each coating, ink, and cleanup material employed, and an indication of whether or not each was vented to the RTO for control;



- b. the amount, in gallons, of each coating and ink employed;
- c. the amount, in gallons, of each cleanup material employed and each cleanup material sent off-site for disposal (includes recycling and reuse);
- d. the name and/or identification of each individual HAP contained in each coating, ink, and cleanup material employed and each cleanup material sent off-site for disposal, and the individual HAP content, in pounds of HAP/gallon, of each coating, ink, and cleanup material;
- e. for each individual HAP, the uncontrolled emissions, in tons, from all the coatings, inks, and cleanup materials employed that were not vented to the RTO for control [i.e., the summation of (b. \* d.) / 2000 for all the coatings and inks employed, and the summation of (c. \* d.) / 2000 for all cleanup materials employed (excluding cleanup materials sent off-site for disposal) that were not vented to the RTO];
- f. for each individual HAP, the controlled emissions, in tons, from all the coatings, inks, and cleanup materials employed that were vented to the RTO for control [i.e., summation of (b. \* d.) / 2000 for all the coatings and inks employed, and the summation of (c. \* d.) / 2000 for all cleanup materials employed (excluding cleanup materials sent off-site for disposal) that were vented to the RTO multiplied by (1 – the overall control efficiency of the capture system and RTO, as determined during the most recent emissions tests that demonstrated the emissions units were in compliance)];
- g. for each individual HAP, the total emissions (uncontrolled plus controlled), in tons, from all the coatings, inks, and cleanup materials employed (i.e., the summation of e. and f.);
- h. the total combined HAP emissions, in tons, for all the coatings, inks, and cleanup materials employed (i.e., the summation of all the individual HAP emissions from g.);
- i. for each individual HAP, the total emissions, in tons, during the rolling 12-month period (i.e., the summation of the individual HAP emissions from g. plus the individual HAP emissions from the previous 11 calendar months); and
- j. the total combined HAP emissions, in tons, during the rolling 12-month period (i.e., the summation of all the individual HAP emissions from h plus all the individual HAP emissions from the previous 11 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 the Cleveland Division of Air Quality. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings and clean-up materials.

- (4) For each printing line (i.e., K001, K002, or K003) that becomes subject to the requirements of OAC rule 3745-21-09(Y)(4)(a), the permittee shall maintain daily records of the following information:



- a. the name and/or identification number of each coating and ink employed and an indication of whether or not each was vented to the RTO for control;
  - b. the name and/or identification number of each coating and ink employed that has a VOC content greater than 0.16 pound of VOC per pound of coating or ink applied and that was not vented to the RTO for control;
  - c. the amount, in pounds, of each coating and ink identified in b. above; and
  - d. the VOC content, in pounds of VOC per pound of coating or ink applied, of each coating and ink identified in b. above.
- (5) Prior to the date a printing line becomes subject to the requirements of OAC rule 3745-21-09(Y)(4)(a) and prior to the date the PTE must be employed to comply with the operational restriction specified in paragraph c)(4) above, the permittee shall measure, document/calculate, and thereafter maintain a permanent record of the following information for the PTE, which may be the same record documented during the compliance test(s):
- a. the measured diameter of each natural draft opening;
  - b. the distance measured from each natural draft opening to each VOC emitting point;
  - c. the total calculated surface area of all natural draft openings and the surface area of the enclosure's four walls, floor, and ceiling;
  - d. the calculation or demonstration that the distance from each VOC emitting point to each natural draft opening is at least 4 times the diameter of the opening; and
  - e. the calculation demonstrating that the sum of the surface areas of all of the natural draft openings to the enclosures is not more than 5 percent of the sum of the surface areas of the enclosure's four walls, floor, and ceiling.
- (6) Prior to the date a printing line becomes subject to the requirements of OAC rule 3745-21-09(Y)(4)(a) and prior to the date the PTE must be employed to comply with the operational restriction specified in paragraph c)(4) of this permit, the permittee shall install, operate, and thereafter maintain monitoring devices and a recorder that continuously monitor and record the differential pressure between the inside and outside of the PTE when the emissions unit is in operation. The monitoring and recording devices shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals, with any modifications deemed necessary by the permittee.

The permittee shall collect and record the following information each day the PTE is used for a printing line to comply with the requirements of OAC rule 3745-21-09(Y)(4)(a) or to comply with the operational restriction specified in c)(4) of this permit:



- a. all three-hour blocks of time during which the difference in pressure between the PTE and the surrounding areas is not maintained at or above the minimum pressure differential of 0.007 inches of water, as a three hour average; and
  - b. a log or record of downtime for the capture (collection) system when the emissions unit was in operation.
- (7) For each printing line that becomes subject to the requirements of OAC rule 3745-21-09(Y)(4)(a) or that must employ the RTO to comply with the operational restriction specified in paragraph c)(4) of this permit, the acceptable average combustion temperature within the RTO, for any 3-hour block of time when the emissions unit(s) controlled by the thermal oxidizer is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent emissions test that demonstrated the emissions unit(s) was/were in compliance. The RTO shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual.
- (8) Prior to the date a printing line becomes subject to the requirements of OAC rule 3745-21-09(Y)(4)(a) and prior to the date the PTE must be employed to comply with the operational restriction specified in paragraph c)(4) of this permit, the permittee shall properly install, operate, and thereafter maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the RTO when the emissions unit(s) is/are 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 manuals.

Each day the RTO is used for a printing line to comply with the requirements of OAC rule 3745-21-09(Y)(4)(a) or to comply with the operational restriction specified in paragraph c)(4) above, the permittee shall collect and calculate the average combustion temperature within the RTO, each of the 3-hour blocks of time during each day of operation, and shall record and maintain the following information each day:

- a. all three-hour blocks of time, when the emissions unit(s) controlled by the RTO was/were in operation, during which the average combustion temperature within the RTO was more than 50 degrees Fahrenheit below the average temperature measured during the most recent emissions test that demonstrated the emissions unit(s) was/were in compliance; and
  - b. a log or record of the operating time for the capture (collection) system, RTO, monitoring equipment and the associated emissions unit(s).
- (9) Whenever the RTO is used for a printing line to comply with the requirements of OAC rule 3745-21-09(Y)(4)(a) or to comply with the operational restriction specified in paragraph c)(4) of this permit, if the monitored average combustion temperature within the RTO deviates from the range/limit specified in this permit, then 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 taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigations and records provided 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 Cleveland Division of Air Quality (Cleveland DAQ). The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future emission tests that demonstrate compliance with the allowable VOC emission rate for the controlled emissions unit(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 an administrative modification.

- (10) The federally enforceable permit to install and operate (FEPTIO) for K001, K002, and K003 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee in the permit application. The Ohio EPA's "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC 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., "X" hours per day and "Y" 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):  
$$TLV/10 * 8/X * 5/Y = 4(TLV/XY) = MAGLC$$
- 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):

Pollutant: Toluene

TLV (mg/m<sup>3</sup>): 75.36

Maximum Hourly Emission Rate (lbs/hr): 25.2 lbs/hr

Predicted 1-Hour Maximum Ground-Level Concentration (µg/m<sup>3</sup>): 1756

MAGLC (µg/m<sup>3</sup>): 1794

Pollutant: Xylene

TLV (mg/m<sup>3</sup>): 434.19

Maximum Hourly Emission Rate (lbs/hr): 54.6 lbs/hr

Predicted 1-Hour Maximum Ground-Level Concentration (µg/m<sup>3</sup>): 4788

MAGLC (µg/m<sup>3</sup>): 10,338



Pollutant: Ethyl benzene

TLV ( $\text{mg}/\text{m}^3$ ): 86.84

Maximum Hourly Emission Rate (lbs/hr): 19.2 lbs/hr

Predicted 1-Hour Maximum Ground-Level Concentration ( $\text{ug}/\text{m}^3$ ): 1689

MAGLC ( $\text{ug}/\text{m}^3$ ): 2068

The permittee, has demonstrated that emissions of Xylene from emissions units K001, K002, and K003 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 contaminant in accordance with ORC 3704.03(F).

The permittee, having demonstrated that emissions of Toluene and Ethyl benzene, from emissions units K001, K002, and K003, are calculated to be equal or greater than eighty per cent, but less than 100 per cent of the maximum acceptable ground level concentration (MAGLC), shall not operate the emissions unit(s) at a rate that would exceed the daily emissions rate, process weight rate, and/or restricted hours of operations, as allowed in this permit; and 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).

- (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 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 ORC 3704.03(F), the statute, 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 permitted 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.

(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":

- 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 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 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 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.

(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 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.

e) Reporting Requirements

(1) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications, or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the District Office or Local Air Agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the required application, notification or report is considered to be "submitted" on the date the submission is successful using a valid electronic signature. Signature by the signatory authority may be represented as provided through procedures established in Air Services.



- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be submitted by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) If either of the following conditions occur:
  - a. the total VOC usage (uncontrolled emissions) from K001, K002, and K003 combined trigger the requirements of OAC rule 3745-21-09(Y)(1); and/or
  - b. the uncontrolled, actual VOC emissions from K001, K002, or K003 individually trigger the requirements OAC rule 3745-21-09(Y)(4)(a),then the permittee shall include in the permit evaluation report the date(s) those requirements were triggered for each printing line.
- (4) The permittee shall submit quarterly deviation (excursion) reports that identify:
  - a. all deviations (excursions) of the following emission limitations and operational and usage restrictions that have been detected by the monitoring, recordkeeping and/or testing requirements in this permit:
    - i. for each of K001, K002, and K003, VOC emissions from all coatings and inks employed in excess of 24.9 tpy, based on a rolling, 12-month summation of emissions;
    - ii. for K001, K002, and K003 combined, VOC emissions from all cleanup materials (minus disposal/recycle) in excess of 2.0 tpy based on a rolling, 12-month summation of emissions;
    - iii. for K001, K002, and K003 combined, HAP emissions in excess of 9.9 tpy for each individual HAP and/or 24.9 tpy for total combined HAPs, based on a rolling, 12-month summation of emissions;
    - iv. for K001, K002, and K003 combined, cleanup materials usage in excess of 595 gallons (minus disposal/recycle), based on a rolling, 12-month summation of usages;
    - v. for K001, K002, and K003 combined, VOC usage (uncontrolled emissions) from all coatings and inks employed in excess of 100 tpy, based on a rolling, 12-month summation of usages (emissions);
    - vi. for K001, an identification of each day coatings and/or inks containing toluene were employed; and
    - vii. for each of K002 and K003, an identification of each day coatings and/or inks containing more than 8% by weight toluene were employed without using the PTE and RTO for all such coatings and inks.
  - b. the probable cause of each deviation (excursion);



- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Cleveland DAQ.

- (5) After the date a printing line becomes subject to the requirements of OAC rule 3745-21-09(4)(a) or the PTE and RTO must be employed to comply with the operational restriction specified in paragraph c)(4) of this permit, the permittee shall submit quarterly deviation (excursion) reports to Cleveland DAQ that identify the following information for those periods of time when the use of the PTE and RTO is required to comply with said requirements:

- a. all three-hour blocks of time, when an affected printing line was in operation, during which the PTE was not maintained at the minimum pressure differential of 0.007 inches of water;
- b. each period of time when the average combustion temperature within the RTO was more than 50 degrees Fahrenheit below the average temperature measured during the most recent emission test;
- c. an identification of each incident of deviation described in a. and/or b. above, where a prompt investigation was not conducted;
- d. an identification of each incident of deviation described in a. and/or b. above, where prompt corrective action, that would bring the pressure differential and/or temperature into compliance, was determined to be necessary and was not taken; and
- e. an identification of each incident of deviation described in a. and/or b. above, where proper records were not maintained for the investigation and/or the corrective action(s).

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Cleveland DAQ.

- (6) After a date the printing line becomes subject to the requirements of OAC rule 3745-21-09(Y)(4)(a), the permittee shall submit quarterly deviation (excursion) reports that identify each day when coatings and/or inks with VOC contents greater than 0.16 pound



of VOC per pound of coating or ink applied were employed in said printing line; and the emissions from all of those coatings and/or inks were not vented to the PTE and the RTO.

- (7) The permittee shall include in the annual PER report documentation of any changes made to a parameter or value used in the dispersion model that was used to demonstrate compliance with ORC 3704.03(F) through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

Total usage of VOC from all coatings and inks shall not exceed 100 tpy for K001, K002, and K003, combined.

Applicable Compliance Method:

Compliance shall be determined by the monitoring and recordkeeping requirements specified in d)(1).

- b. Emission Limitation:

VOC emissions shall not exceed 24.9 tons per rolling, 12-month period for each of K001, K002, and K003.

Applicable Compliance Method:

Compliance shall be determined by the monitoring and recordkeeping requirements specified in d)(1).

- c. Emission Limitation:

VOC emissions shall not exceed 2.0 tons per rolling, 12-month period from all clean-up materials employed in K001, K002, and K003, combined.

Applicable Compliance Method:

Compliance shall be determined by the monitoring and recordkeeping requirements specified in d)(2).

- d. Emission Limitation:

HAP emissions shall not exceed 9.9 tpy for each individual HAP for the entire facility, based on a rolling, 12-month summation of the emissions.

Applicable Compliance Method:

Compliance shall be determined by the monitoring and recordkeeping requirements specified in d)(3). Also, formulation data may be used to determine the individual HAP content of each coating, ink, and cleanup material employed.



e. Emission Limitation:

HAP emissions shall not exceed 24.9 tpy for total combined HAPs for the entire facility based on a rolling, 12-month summation of the emissions.

Applicable Compliance Method:

Compliance shall be determined by the by the monitoring and recordkeeping requirements specified in d)(3).

f. Emission Limitation:

75% or greater overall control efficiency for VOC emissions from each printing line subject to the requirements of OAC rule 3745-21-09(Y)(4)(a)(i) [100% capture from the PTE and 75% or greater destruction efficiency for the RTO].

Applicable Compliance Method:

If required, the following test method(s) and procedures shall be employed to demonstrate compliance with the capture and destruction efficiency requirements:

Methods 1 through 4 and 25 or 25A, as applicable, of 40 CFR Part 60, Appendix A, as appropriate.

The destruction 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.

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

The capture efficiency of the PTE shall be determined in accordance with the following test methods and procedures:

Method 204 from 40 CFR Part 51 Appendix M; and Method 2 from 40 CFR Part 60, Appendix A.

During the compliance demonstration for the PTE, the existing monitoring devices shall be employed to measure the average facial velocity of the air flow through each natural draft opening.

Method 2 from 40 CFR Part 60, Appendix A shall be conducted to determine the volumetric flow rate of the exhaust stream(s) exiting the PTE, corrected to standard conditions. If the building is being used as the PTE, it may be necessary to measure the volumetric flow, corrected to standard conditions, of each gas stream entering the "enclosure" through a forced makeup air duct, using Method 2. The facial velocity (FV) shall be calculated using the following equation:



$$FV = \frac{Q_o - Q_i}{An}$$

where:

$Q_o$  is the sum of the volumetric flow from all gas streams exiting the enclosure through an exhaust duct or hood;

$Q_i$  is the sum of the volumetric flow from all gas streams into the enclosure through a forced makeup air duct, and is equal to zero if there is no forced makeup air into the enclosure; and

$An$  is the total area of all natural draft openings in the enclosure.

If the average facial velocity is measured at greater than 500 feet per minute (9,000 m/hr), the direction of air flow shall be assumed to be inward at all times during the compliance demonstration. If the average facial velocity is measured at less than 500 feet per minute, the continuous inward flow of air shall be verified at least once every 10 minutes for a minimum of 1 hour during the compliance demonstration, either by checking the flow or pressure meter(s) or through the use of streamers, smoke tubes, or tracer gases. All closed access doors and windows that are not considered natural draft openings shall also be checked once during the compliance demonstration for leakage around their perimeters using smoke tubes or tracer gases.

The permittee shall also measure and record the following information for the PTE and each natural draft opening:

- i. the diameter of each natural draft opening;
- ii. the distance measured from each natural draft opening to each VOC emitting point in the process;
- iii. the distance measured from each exhaust duct or hood in the enclosure to each natural draft opening;
- iv. the total surface area of each natural draft opening and the surface area of the enclosure's four walls, floor, and ceiling; and
- v. the ratio of the total surface area (sum) of all natural draft openings to the total surface area of the permanent total enclosure.

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland DAQ.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s).



Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland DAQ's refusal to accept the results of the emission test(s).

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ within 30 days following the 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 Cleveland DAQ.

- a. Emission Limitation:  
0.16 pound of VOC per pound of coating or ink applied

Applicable Compliance Method:

Compliance shall be determined by the monitoring and recordkeeping requirements specified in d)(4).

In accordance with OAC rule 3745-21-04(B)(5), U.S. EPA Method 24 or 24A (40 CFR Part 60, Appendix A) shall be used to determine the VOC content of each of the coatings and inks. The Cleveland DAQ or Ohio EPA may require that U.S. EPA Method 24 or 24A be used to determine the VOC content of the coatings and inks. If, pursuant to section 11.4 of Method 24, an owner or operator determines that Method 24 or 24A cannot be used for a particular coating or ink, then the permittee shall so notify the administrator of the U.S. EPA and shall use formulation data for that coating or ink to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.

U.S. EPA Method 24 or formulation data shall be used to determine the VOC contents of the cleanup materials.

- g) Miscellaneous Requirements
  - (1) None.