



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

8/6/2013

Mr. Gregory Tremonti
NORTH TOLEDO GRAPHICS LLC
5225 TELEGRAPH RD.
Toledo, OH 43612

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0448010300
Permit Number: P0115206
Permit Type: Initial Installation
County: Lucas

Certified Mail

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

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

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

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/dapc/permitsurvey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Toledo Department of Environmental Services at (419)936-3015 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: TDES



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
NORTH TOLEDO GRAPHICS LLC**

Facility ID:	0448010300
Permit Number:	P0115206
Permit Type:	Initial Installation
Issued:	8/6/2013
Effective:	8/6/2013
Expiration:	4/20/2014



Division of Air Pollution Control
Permit-to-Install and Operate
for
NORTH TOLEDO GRAPHICS LLC

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Final Permit-to-Install and Operate
NORTH TOLEDO GRAPHICS LLC
Permit Number: P0115206
Facility ID: 0448010300
Effective Date: 8/6/2013

Authorization

Facility ID: 0448010300
Application Number(s): A0048243
Permit Number: P0115206
Permit Description: Installation of Heatset Offset Web Lithographic Printing Press #9
Permit Type: Initial Installation
Permit Fee: \$200.00
Issue Date: 8/6/2013
Effective Date: 8/6/2013
Expiration Date: 4/20/2014
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

NORTH TOLEDO GRAPHICS LLC
5225 TELEGRAPH ROAD
Toledo, OH 43612

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

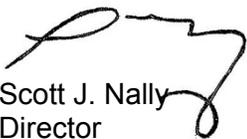
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Toledo Department of Environmental Services
348 South Erie Street
Toledo, OH 43604
(419)936-3015

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


Scott J. Nally
Director



Final Permit-to-Install and Operate
NORTH TOLEDO GRAPHICS LLC
Permit Number: P0115206
Facility ID: 0448010300
Effective Date: 8/6/2013

Authorization (continued)

Permit Number: P0115206
Permit Description: Installation of Heatset Offset Web Lithographic Printing Press #9

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

Emissions Unit ID:	K009
Company Equipment ID:	Line 9
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
NORTH TOLEDO GRAPHICS LLC
Permit Number: P0115206
Facility ID: 0448010300
Effective Date: 8/6/2013

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. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. 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 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 Toledo Department of Environmental Services 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 submitting¹ 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 emissions 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.

¹ Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).



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.



Final Permit-to-Install and Operate
NORTH TOLEDO GRAPHICS LLC
Permit Number: P0115206
Facility ID: 0448010300
Effective Date: 8/6/2013

B. Facility-Wide Terms and Conditions



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.
2. This facility is exempted from Title V permitting requirements based on presumed inherent physical limitations of Engineering Guide #61, i.e., that the facility-wide actual emissions are below twenty percent of any regulated pollutant threshold. To assure compliance with the presumed Title V permitting exemption, the permittee shall maintain the following annual records demonstrating that the stack emissions of volatile organic compounds (VOC) are less than 20 tons per year, and that combined stack and fugitive emissions of hazardous air pollutants (HAPs) are less than 2 tons per year of any individual HAP and 5 tons per year for any combination of HAPs.
 - a) The permittee shall maintain calendar year records of the following information for all materials utilized at this facility.
 - (1) the company identification for each ink, fountain solution and cleanup solvent;
 - (2) the total number of pounds of each ink employed;
 - (3) the VOC content of each ink, in percent by weight;
 - (4) the individual HAP content of each ink, in percent by weight;
 - (5) the total number of gallons of each fountain solution, and cleanup solvent employed;
 - (6) the VOC content of each fountain solution and cleanup solvent, in pounds per gallon;
 - (7) the individual HAP content of each fountain solution and cleanup solvent in percent by weight;
 - (8) the thermal oxidizer's destruction efficiency, as demonstrated during the most recent destruction efficiency test that demonstrated compliance;
 - b) The permittee shall calculate annually the total calendar year stack emissions of VOC facility-wide, as follows:

from dryer control device or dryer stack (if uncontrolled) are:

$$S = (1 - DRE)[0.8 (P) + A_d (FS) + B_d (CS)] \div (2000 \text{ pounds per ton})$$



where

Stack Emissions S, (tons VOC per year)

DRE = destruction or removal efficiency of control device, expressed as a decimal (i.e., 0.95)

P = (ink usage rate, pounds per year) X (ink VOC content, % by wt.)

FS = (fountain solution usage rate, gallons per year) X (fountain solution VOC content, pounds VOC per gallon)

CS = (cleanup solvent usage rate, gallons per year) X (cleanup solvent VOC content, pounds VOC per gallon)

A_d = mass fraction of fountain solution VOC routed to dryer and control device;

for alcohol substitutes, $A_d = 0.7$

for alcohol fountain solutions, $A_d = 0.0$

A_f = mass fraction of fountain solution VOC emitted as fugitive;

for alcohol substitutes, $A_f = 0.3$

for alcohol fountain solutions, $A_f = 1.0$

B_d = mass fraction of cleanup solvent routed to dryer and control device;

for automatic blanket washing systems, $B_d = 0.4$ (if solvent vapor pressure < 10 mm Hg at 20 deg. C (68 deg. F)); for higher vapor pressure solvents, $B_d = 0.0$

for hand wash cleanup operations, $B_d = 0.0$

B_f = mass fraction of cleanup solvent emitted as fugitive;

for automatic blanket washing systems, $B_f = 0.6$ (if solvent vapor pressure < 10 mm Hg at 20 deg. C (68 deg. F)); for higher vapor pressure solvents, $B_f = 1.0$

for hand wash cleanup operations, $B_f = 0.5$ (if solvent vapor pressure < 10 mm Hg at 20 deg. C (68 deg. F) and used rags are stored in closed containers); for higher vapor pressure solvents, $B_f = 1.0$

- c) The permittee shall calculate annually the total calendar year emissions of each individual HAP facility-wide, as follows:

Stack Emissions, S, (tons per year) from dryer control device are:

$$S = (1 - DRE)[0.8 (P) + A_d (FS) + B_d (CS)] \div (2000 \text{ lbs/ton})$$



Fugitive emissions, F, (tons per year) from a press are:

$$F = [A_f(FS) + B_f(CS)] \div (2000 \text{ lbs/ton})$$

$$\text{Total emissions from press} = S + F$$

where

DRE = destruction or removal efficiency of control device, expressed as a decimal (i.e., 0.95)

P = (ink usage rate, lbs/year) X (ink HAP content, % by wt.)

FS = (fountain solution usage rate, gal/year) X (fountain solution VOC content, lbs VOC/gal) X (fountain solution individual HAP content, % by weight)

CS = (cleanup solvent usage rate, gal/month) X (cleanup solvent VOC content, lbs VOC/gal) X (cleanup solvent individual HAP content, % by weight)

A_d = mass fraction of fountain solution VOC routed to dryer and control device;

for alcohol substitutes, $A_d = 0.7$

for alcohol fountain solutions, $A_d = 0.0$

A_f = mass fraction of fountain solution VOC emitted as fugitive;

for alcohol substitutes, $A_f = 0.3$

for alcohol fountain solutions, $A_f = 1.0$

B_d = mass fraction of cleanup solvent routed to dryer and control device;

for automatic blanket washing systems, $B_d = 0.4$ (if solvent vapor pressure < 10 mm Hg at 20 deg. C (68 deg. F)); for higher vapor pressure solvents, $B_d = 0.0$

for hand wash cleanup operations, $B_d = 0.0$

B_f = mass fraction of cleanup solvent emitted as fugitive;

for automatic blanket washing systems, $B_f = 0.6$ (if solvent vapor pressure < 10 mm Hg at 20 deg. C (68 deg. F)); for higher vapor pressure solvents, $B_f = 1.0$

for hand wash cleanup operations, $B_f = 0.5$ (if solvent vapor pressure < 10 mm Hg at 20 deg. C (68 deg. F) and used rags are stored in closed containers); for higher vapor pressure solvents, $B_f = 1.0$

- d) The permittee shall calculate annually the total calendar year emissions of the combined emissions for any combination of HAPs facility-wide, as follows:



- (1) sum the individual HAP emissions recorded in c) to determine the calendar year emissions for any combination of HAPs facility-wide.
- e) The permittee shall include the following information in the annual Permit Evaluation Report:
- (1) the actual facility-wide stack VOC calendar year emissions if the calculated facility-wide stack emissions of VOC are greater than or equal to 20 tons of VOC;
 - (2) the combined stack and fugitive individual HAP facility-wide calendar year emissions if the actual facility-wide individual combined stack and fugitive individual HAP emissions are greater than or equal to 2 tons;
 - (3) the combined stack and fugitive facility-wide calendar year emissions for any combination of HAP if the actual facility-wide combined stack and fugitive calendar year emissions for any combination of HAP are greater than or equal to 5 tons.



Final Permit-to-Install and Operate
NORTH TOLEDO GRAPHICS LLC
Permit Number: P0115206
Facility ID: 0448010300
Effective Date: 8/6/2013

C. Emissions Unit Terms and Conditions



1. K009, Heatset Offset Web Lithographic Printing Presses

Operations, Property and/or Equipment Description:

K009 - Line 9 Heatset Offset Web Lithographic Printing Press and two 1.35 mmBtu/hr natural gas, indirect fired dryers. K002, K005, K007 and K009 will all be controlled by a common regenerative thermal oxidizer (RTO). This press is equipped with a standby incinerator that can be utilized to allow operation, in the event of a malfunction of the main principal RTO.

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)(9) through d)(12)

(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. None

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
Heatset Offset Web Lithographic Printing Press		
a.	ORC 3704.03(T)	see b)(2)a. through b)(2)f.
b.	OAC rule 3745-17-07(A)(1)	see b)(2)g.
c.	OAC rule 3745-17-11(B)(1)	particulate emissions (PE) from the stack shall not exceed 0.551 pound per hour
d.	OAC rule 3745-114-01	See d)(9) through d)(12)
(2) 1.35mmBtu/hr natural gas-fired dryers.		
e.	OAC rule 3745-31-05(A)(3) as effective 11/30/01	carbon monoxide (CO) emissions shall not exceed 0.23 pound per hour and 1.0 ton per year nitrogen oxides (NOx) emissions shall not exceed 0.27 pound per hour and 1.18



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		tons per year PE shall not exceed 0.02 pound per hour and 0.09 ton per year sulfur dioxide (SO ₂) emissions shall not exceed 0.01 pound per hour and 0.05 ton per year volatile organic compounds (VOC) emissions shall not exceed 0.02 pound per hour and 0.09 ton per year see b)(2)h and b)(2)i.
f.	OAC rule 3745-31-05(A)(3)(a)(ii) as effective 12/1/2006	see b)(2)j.
g.	OAC rule 3745-17-07(A)(1)	see b)(2)g.
h.	OAC rule 3745-17-10(B)(1)	PE from the stack shall not exceed 0.020 pound per million Btu of actual heat input
i.	OAC rule 3745-18-06(B)	Exemption for units with a maximum rated heat capacity of less than or equal to 10 mmBTU per hour heat input.

(2) Additional Terms and Conditions

- a. The permittee shall vent the emissions from the dryer to an incinerator at all times during which the emissions unit is in operation.
- b. Any incinerator utilized to comply with these emissions limitation shall reduce VOC emissions by at least ninety-five percent or maintain a maximum VOC outlet concentration of twenty ppmv, as hexane (C₆H₁₄) on a dry basis, whichever is less stringent.
- c. The permittee shall meet i. or ii. below for the fountain solution used:
 - i. if the fountain solution contains only alcohol substitutes, maintain the as-applied VOC content of the fountain solution at or below 5.0 per cent, by weight, and use no alcohol in the fountain solution.
 - ii. if the fountain solution contains alcohol:
 - (a) maintain the as-applied VOC content of the fountain solution at or below 1.6 per cent, by weight; or



- (b) maintain the as-applied VOC content of the fountain solution at or below 3.0 per cent, by weight, and refrigerate the fountain solution to sixty degrees Fahrenheit or less.
- d. The permittee shall meet i. or ii. below for each cleaning solution used for cleaning on the press:
 - i. Maintain the as-applied VOC content at or below seventy percent, by weight; or
 - ii. Maintain the as-applied VOC composite partial vapor pressure at or below ten mm Hg at twenty degrees Celsius (sixty-eight degrees Fahrenheit).

The use of cleaning solutions not meeting the specifications of d.i. and d.ii. is permitted provided that the quantity used does not exceed one hundred ten gallons over any consecutive twelve-month period.

- e. The permittee shall keep all solvent containers closed at all times unless filling, draining, or performing cleanup operations.
- f. The permittee shall keep all solvent-laden shop towels in closed containers when not being used.
- g. Visible particulate emissions from any stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
- h. The hourly and annual CO, NO_x, PE, SO₂ and VOC emissions limits were established to reflect the potential to emit for this emissions unit while combusting natural gas. Therefore, as long as only natural gas is utilized as fuel it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these emissions limitations.
- i. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutants emitted at less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits/control measures no longer apply.

The following terms and conditions shall become void after U.S. EPA approves the rule revision:

b)(1)e., b)(2)h., b)(2)i., and f)(1)h. through f)(1)q.



- j. This paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

The Best Available Technology requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO, NO_x, PE, SO₂ and VOC emissions from the drying oven burners since the uncontrolled potential to emit for CO, NO_x, PE, SO₂ and VOC is less than 10 tons per year.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas as fuel in this emissions unit.
- (2) The permittee shall maintain the dryer air pressure lower than the pressroom air pressure at all times the press is operating.

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) The permittee shall maintain a record of any period of time during which the emissions from the dryer were not vented to an incinerator while the emissions unit is in operation.
- (3) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable combustion temperature within the thermal oxidizer, during any period 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 performance test that demonstrated the emissions unit(s) was/were in compliance.
- (4) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit(s) is/are in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:
 - a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal oxidizer was/were 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(s) was/were in compliance; and



- b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit(s) was/were in operation.

These records shall be maintained at the facility for a period of no less than 5 years.

- (5) If the fountain solution contains alcohol:

- a. the permittee shall measure the VOC (alcohol) content, in accordance with OAC rule 3745-21-22(F)(2)(d), of any altered fountain solution, at the time of alteration, in percent by weight, of the fountain solution employed in the press. The alcohol content of the fountain solution shall be measured using a hydrometer. The hydrometer shall have a visual, analog, or digital readout with an accuracy of 0.5 per cent; and a standard solution shall be used to calibrate the hydrometer for the type of alcohol used in the fountain solution; and
- b. if the permittee refrigerates the fountain solution to comply with the option of b)(2)b.ii.(b), the permittee shall measure on a daily basis, the temperature, in degrees Fahrenheit, of the fountain solution. A thermometer or other temperature detection device capable of reading to 0.5 degrees Fahrenheit shall be used to ensure that any refrigerated fountain solution reservoirs are maintained at or below sixty degrees Fahrenheit at all times.

These records shall be maintained at the facility for a period of no less than 5 years.

- (6) The permittee shall maintain records of one of the following for fountain solution preparation:

- a. when maintaining a recipe log for each batch of fountain solution prepared for use in the press:
 - i. a recipe log that identifies all recipes used to prepare the as-applied fountain solution. Each recipe shall be maintained in the recipe log for a period of five years from the date the recipe was last prepared for a press. Each recipe shall clearly identify the following:
 - (a) VOC content of each concentrated alcohol substitute, added to make the batch of fountain solution, based upon the manufacturer's laboratory analysis using USEPA method 24;
 - (b) the proportions in which the fountain solution is mixed, including the addition of alcohol and/or water. The proportion may be identified as a volume when preparing a discrete batch or may be identified as the settings when an automatic mixing unit is employed; and
 - (c) the calculated VOC content of the final, mixed recipe;
 - ii. identification of the recipe used to prepare each batch of fountain solution for use in the press;



- iii. the date and time when the batch was prepared; and
- iv. an affirmation the batch was prepared in accordance with the recipe.

OR

- b. when not maintaining a recipe log, for each batch of fountain solution prepared for use in the press:
 - i. the volume and VOC content of each concentrated alcohol substitute, added to make the batch of fountain solution, based upon the manufacturer's laboratory analysis using USEPA method 24;
 - ii. the volume of alcohol added to make the batch of fountain solution;
 - iii. the volume of water added to make the batch of fountain solution;
 - iv. the calculated VOC content of the final, mixed batch; and
 - v. the date and time the batch was prepared.

These records shall be maintained at the facility for a period of no less than 5 years.

For purposes of compliance with d)(6), a fountain solution that is continuously blended with an automatic mixing unit is considered to be the same batch until such time that the recipe or mix ratio is changed.

- (7) The permittee shall maintain records of one of the following for all cleaning solutions employed:
 - a. when maintaining a recipe log for each batch of cleaning solution prepared:
 - i. a recipe log that identifies all recipes used to prepare the as-applied cleaning solution. Each recipe shall be maintained in the recipe log for a period of five years from the date the recipe was last prepared. Each recipe shall clearly identify the following:
 - (a) the VOC content of each cleaning solution, based upon the manufacturer's laboratory analysis using USEPA method 24; or
 - (b) the VOC composite partial vapor pressure of each cleaning solution, based upon the method under OAC rule 3745-21-22(F)(5).
 - ii. identification of the recipe used to prepare each batch of cleaning solution;
 - iii. the date and time when the batch was prepared; and
 - iv. an affirmation the batch was prepared in accordance with the recipe.



OR

- b. when not maintaining a recipe log, for each batch of cleaning solution prepared,
 - i. records of the VOC content or VOC composite partial vapor pressure; and
 - ii. the date and time the batch was prepared.

These records shall be maintained at the facility for a period of no less than 5 years.

- (8) The permittee shall maintain monthly records of the following information:
 - a. the total amount, in gallons, of all the cleaning solutions employed; and
 - b. the total amount, in gallons, of all the cleaning solutions employed that exceeds the allowable VOC content or VOC composite vapor pressure.
- (9) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit(s) maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified PTIO 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 toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.
- (10) The Permit to Install (PTI) application for this emissions unit, K009, was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this emissions unit 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 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 was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit, 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 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 result of dispersion modeling for worst case contaminant (emitted at 1 or more tons/year).

Toxic Contaminant: Trimethylbenzenes
TLV (µg/m3): 123,000
Maximum Hourly Emission Rate (lbs/hr): 1.2
Predicted 1-Hour Maximum Ground Level Concentration (µg/m3): 48.14
MAGLC (µg/m3): 2,930

The permittee, has demonstrated that emissions of the above air toxics, from emissions unit K009, 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).

(11) Prior to making any physical changes to or changes in the method of operation of the emissions unit, 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.

- (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. 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 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 or the materials applied.

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.

e) Reporting Requirements

- (1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee



shall submit the PER in the form and manner provided by the director 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.

- (2) The permittee shall identify in the annual permit evaluation report each day when a fuel other than natural gas was burned in this emissions unit.
 - (3) The permittee shall submit summaries of the following records concerning the operations of the thermal incinerator during the 12-month reporting period for this emissions unit(s) in the annual permit evaluation report:
 - a. any period of time during which the emissions from the dryer were not vented to an incinerator while the emissions unit was in operation;
 - b. all 3-hour blocks of time (when the emissions unit(s) was/were in operation) during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature maintained during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
 - c. any records of downtime (date and length of time) for the capture (collection) system, the thermal oxidizer, and/or the monitoring equipment when the emissions unit(s) was/were in operation; and
 - d. a log of the operating time for the capture system, thermal oxidizer, monitoring equipment, and the emissions unit(s).
 - (4) The permittee shall identify the following in the annual permit evaluation report:
 - a. if determining fountain solution alcohol content via hydrometer measurement, each hydrometer measurement that shows an exceedance of the applicable alcohol content limitation specified in b)(2)c.;
 - b. if complying via refrigerated fountain solution, each temperature reading that shows an exceedance of the temperature limitation specified in b)(2)c.ii.(b);
 - c. each calculated fountain solution VOC content that exceeds the VOC content limitation specified in b)(2)c.ii.; and
 - d. each instance when an exceedance of the VOC content or VOC composite partial vapor pressure specified in b)(2)d. for cleaning solutions occurs and a copy of each such record.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:



a. Emission Limitation:

Visible particulate emissions from any/the stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method

Compliance shall be determined through visible emission observations performed in accordance with Method 9 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(1).

b. Emission Limitation:

PE from the dryer stack shall not exceed 0.551 pound per hour.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with Methods 1 through 5 of 40 CFR Part 60, Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA approved test methods may be used with prior approval from Ohio EPA.

c. Emission Limitation:

VOC emissions shall be reduced by ninety-five percent or maintain a maximum VOC outlet concentration of twenty ppmv, as hexane (C₆H₁₄) on a dry basis, whichever is less stringent.

Applicable Compliance Method:

If required, the control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-22(F)(1)(a) through (F)(1)(c) or an alternative test protocol approved by the Ohio EPA.

d. Emission Limitation:

VOC content limitation of the as-applied fountain solution specified in b)(2)c.,

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance according to the procedure specified in OAC rule 3745-21-22(F)(2)(a) through (d) or an alternative test protocol approved by the Ohio EPA..

e. Emission Limitation:

VOC content of cleaning solution limitation specified in b)(2)d.i.



Applicable Compliance Method:

If required, the permittee shall demonstrate compliance according to the procedure specified in OAC rule 3745-21-22(F)(4)(a) through (c) or an alternative test protocol approved by the Ohio EPA.

f. Emission Limitation:

VOC composite partial vapor pressure of cleaning solution limitation specified in b)(2)d.ii.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using the procedures specified under OAC rule 3745-21-22(F)(5) or an alternative test protocol approved by the Ohio EPA.

g. Emission Limitation:

The permittee shall maintain the dryer air pressure lower than the pressroom air pressure at all times the press is operating.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance using an airflow direction indicator, such as a smoke stick or aluminum ribbons, or differential pressure gauge.

h. Emission Limitation:

CO emissions shall not exceed 0.23 pound per hour.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on emission factors specified in USEPA reference document AP 42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-1 dated 7/98, as follows: divide the emission factor of 84 pounds of CO emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 2.7 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 4 and 10 of 40 CFR Part 60, Appendix A. Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services.

i. Emission Limitation:

CO emissions shall not exceed 1.0 ton per year.



Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on calculations performed as follows: multiply the short term emission limitation (0.23 pound per hour) by the maximum annual hours of operation (8,760 hours), and then divide by 2,000 pounds per ton.

j. Emission Limitation:

NOx emissions shall not exceed 0.27 pound per hour

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on emission factors specified in USEPA reference document AP 42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-1 dated 7/98, as follows: divide the emission factor of 100 pounds of NOx emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 2.7 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation in accordance with the methods and procedures specified in Methods 1 through 4 and 7 of 40 CFR Part 60, Appendix A. Alternate, equivalent methods may be used upon approval by the Toledo Division of Environmental Services.

k. Emission Limitation:

NOx emissions shall not exceed 1.18 tons per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on calculations performed as follows: multiply the short term emission limitation (0.27 pound per hour) by the maximum annual hours of operation (8,760 hours), and then divide by 2,000 pounds per ton.

l. Emission Limitation:

PE shall not exceed 0.02 pound per hour.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on emission factors specified in USEPA reference document AP 42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 7.6 pounds of PE per million standard cubic feet by a heating



value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 2.7 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

m. Emission Limitation:

PE shall not exceed 0.09 ton per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on calculations performed as follows: multiply the short term emission rate of 0.02 pound of PE per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

n. Emission Limitation:

SO₂ emissions shall not exceed 0.01 pound per hour

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on emission factors specified in USEPA reference document AP 42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 0.6 pound of SO₂ emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 2.7 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 6 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-18-04. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

o. Emission Limitation:

SO₂ emissions shall not exceed 0.05 ton per year

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on calculations performed as follows: multiply the short term emission rate of 0.01 pound of SO₂ per hour by 8,760 hours per year and divide by 2,000 pounds per ton.



p. Emission Limitation:

0.02 pound of VOC per hour.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on emission factors specified in USEPA reference document AP 42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 5.5 pounds of VOC emissions per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot and multiply by the maximum heat input capacity of 2.7 mmBtu per hour.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 4 and 25 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-21-10. Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.

q. Emission Limitation:

0.09 ton of VOC per year.

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emission limitation was developed based on calculations performed as follows: multiply the short term emission rate of 0.02 pound of VOC per hour by 8,760 hours per year and divide by 2,000 pounds per ton.

r. Emission Limitation:

Particulate emissions shall not exceed 0.020 pound per million Btu of actual heat input

Applicable Compliance Method:

This emission limitation was established to reflect the potential to emit for this emissions unit. This emissions limitation was developed based on emission factors specified in USEPA reference document AP 42, Fifth Edition, Compilation of Air Pollution Emission Factors, Table 1.4-2 dated 7/98, as follows: divide the emission factor of 1.9 pounds of PE per million standard cubic feet by a heating value of 1020 Btus per standard cubic foot.

If required, the permittee shall demonstrate compliance with this emission limitation through emission testing performed in accordance with Methods 1 thru 5 of 40 CFR Part 60 Appendix A using the methods and procedures specified in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA approved test methods may be used with prior written approval from the Ohio EPA.



- (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 in coordination with emission units K002, K005, and K007. These emissions units all require testing within 6 months of permit renewal and the current permit for K002, K005 and K007 expires in April 2014. The testing shall be performed as close to maximum production rate as possible.
 - b. The emission testing shall be conducted approximately every 5 years. The most recent test was performed in July 2009.
 - c. The emission testing shall be conducted to demonstrate compliance with:
 - i. the VOC content of inks in weight percent and the VOC content of fountain solution and cleanup solvent in pounds per gallon; and
 - ii. the control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system).
 - d. The following test method(s) shall be employed to demonstrate compliance with the allowable emission rate(s):
 - i. Methods 1-4 and 25 or 25A, as appropriate, of 40 CFR Part 60, Appendix A for stack emissions and destruction efficiency in accordance with the test methods and procedures specified in OAC rule 3745-21-10(C). The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. Samples shall be taken simultaneously at the inlet and outlet of the vapor control system.
 - ii. U.S. EPA Methods 24 and 24A shall be used to determine the VOC contents for coatings and flexographic and rotogravure printing inks and related coatings, respectively. If, pursuant to Section 4.3 of Method 24, 40 CFR Part 60, Appendix A, the permittee determines that Method 24 or 24A cannot be used for a particular coating or ink, the permittee shall so notify the Administrator of the U.S. EPA and shall use formulation data for that coating or ink to demonstrate compliance until the U.S. EPA provides alternative analytical procedures or alternative precision statements for Method 24 or 24A.
 - iii. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - iv. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.



- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
- f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency. The test report shall include the average combustion temperature within the thermal oxidizer for each test run.

g) **Miscellaneous Requirements**

- (1) The permittee has identified in the initial application for this emissions unit that the maximum material usage rates and VOC contents will not exceed the following.
 - a. 450,000 gallons/yr ink with a maximum VOC content of 42.11% by weight;
 - b. 3,200 gallons/yr fountain solution with a maximum VOC content of 0.54 lb/gal; and
 - c. 2,900 gallons/yr of cleanup materials with a maximum VOC content of 6.6 lb/gal.

If the permittee proposes to change the production capacity, the types and/or quantities of materials used or processed, or anything else that increases the potential emissions of any air pollutant, then the permittee may need to apply for and obtain either an administrative modification or a chapter 31 modification to the permit to install and operate (PTIO) prior to the change(s).