



Environmental Protection Agency

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

2/23/2011

MICHAEL DEAN
BEACON JOURNAL PUBLISHING COMPANY
44 EAST EXCHANGE STREET
AKRON, OH 44309

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

Facility ID: 1677010525
Permit Number: P0107659
Permit Type: Renewal
County: Summit

Certified Mail

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

Dear Permit Holder:

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

The issuance of this PTI 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
309 South Fourth Street, Room 222
Columbus, OH 43215

If you have any questions, please contact Akron Regional Air Quality Management District at (330)375-2480 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. This permit can be accessed electronically on the DAPC Web page, www.epa.ohio.gov/dapc, by clicking the "Issued Air Pollution Control Permits" link.

Sincerely,

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

Cc: ARAQMD



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
BEACON JOURNAL PUBLISHING COMPANY**

Facility ID:	1677010525
Permit Number:	P0107659
Permit Type:	Renewal
Issued:	2/23/2011
Effective:	2/23/2011
Expiration:	2/23/2016



Division of Air Pollution Control
Permit-to-Install and Operate
for
BEACON JOURNAL PUBLISHING COMPANY

Table of Contents

Authorization 1
A. Standard Terms and Conditions 3
1. What does this permit-to-install and operate ("PTIO") allow me to do?..... 4
2. Who is responsible for complying with this permit? 4
3. What records must I keep under this permit? 4
4. What are my permit fees and when do I pay them?..... 4
5. When does my PTIO expire, and when do I need to submit my renewal application? 4
6. What happens to this permit if my project is delayed or I do not install or modify my source? 5
7. What reports must I submit under this permit? 5
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? 5
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ... 5
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? 6
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? 6
12. What happens if one or more emissions units operated under this permit is/are shut down permanently? 6
13. Can I transfer this permit to a new owner or operator?..... 7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? 7
15. What happens if a portion of this permit is determined to be invalid? 7
B. Facility-Wide Terms and Conditions..... 8
C. Emissions Unit Terms and Conditions 10
1. Emissions Unit Group - Flexographic Printing Presses: K007, K008, K009, 11



Authorization

Facility ID: 1677010525
Application Number(s): A0041301
Permit Number: P0107659
Permit Description: FEPTIO Renewal for facility consisting of 3 flexographic printing presses
Permit Type: Renewal
Permit Fee: \$0.00
Issue Date: 2/23/2011
Effective Date: 2/23/2011
Expiration Date: 2/23/2016
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

BEACON JOURNAL PUBLISHING COMPANY
44 EAST EXCHANGE STREET
AKRON, OH 44309

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

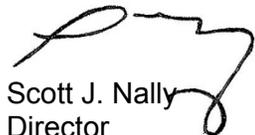
Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Akron Regional Air Quality Management District
146 South High Street, Room 904
Akron, OH 44308
(330)375-2480

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



Authorization (continued)

Permit Number: P0107659
Permit Description: FEPTIO Renewal for facility consisting of 3 flexographic printing presses

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

Group Name: Flexographic Printing Presses

Emissions Unit ID:	K007
Company Equipment ID:	MAN Roland Flexo Printing ress - "A"
Superseded Permit Number:	P0102705
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	K008
Company Equipment ID:	MAN Roland Flexo Printing ress - "B"
Superseded Permit Number:	P0102705
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	K009
Company Equipment ID:	MAN Roland Flexo Printing ress - "C"
Superseded Permit Number:	P0102705
General Permit Category and Type:	Not Applicable

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 Akron Regional Air Quality Management District 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.

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.

C. Emissions Unit Terms and Conditions

1. Emissions Unit Group - Flexographic Printing Presses: K007, K008, K009,

EU ID	Operations, Property and/or Equipment Description
K007	MAN Roland Flexographic Printing Press - "A"
K008	MAN Roland Flexographic Printing Press - "B"
K009	MAN Roland Flexographic Printing Press - "C"

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. None.

(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. All.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	Volatile organic compound (VOC) emissions shall not exceed 2.69 pounds per hour.
b.	OAC rule 3745-31-05(D)	Combined annual emissions from the entire facility shall not exceed the following as a rolling, 12-month summation: 95 tons per year of VOC; 24 tons per year of combined hazardous air pollutants (HAPs); and 9.0 tons per year of any individual HAP.
c.	OAC rule 3745-21-09(Y)(1), (Y)(3)	The VOC content of any ink or coating employed in the printing line(s) shall not exceed one of the following limitations:

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		40% VOC by volume of the coatings and inks, excluding water and exempt solvents, as determined under paragraph (B) of OAC rule 3745-21-10 of the Administrative Code for $C_{VOC,5}$; or $C_{VOC,5} = (100)(V_{VOC}) / (V_S + V_{VOC})$ 25% VOC by volume of the volatile matter in the coatings and inks, as determined under paragraph (B) of OAC rule 3745-21-10 of the Administrative Code for $C_{VOC,6}$. $C_{VOC,6} = (100)(V_{VOC}) / V_{VM}$
d.	OAC rule 3745-21-09(Y)(4)	Employ coatings in the flexographic packaging printing lines that comply with the following VOC content limitations: 0.8 pound of VOC per pound of solids applied; or 0.16 pound of VOC per pound of coating applied. The VOC content limits specified above may be met by averaging the VOC content of materials used on a single press, within a single printing line.
e.	40 CFR 63, Subpart KK	Exempt, Area source subject only to the provisions of §63.829(d) and §63.830(b)(1). (initial notification and HAP/VOC records)

(2) Additional Terms and Conditions

a. This emissions unit has 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 emissions, upon issuance of this permit.

c) Operational Restrictions

(1) The permittee shall minimize VOC emissions from the 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.

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

- (1) The record of the calculation from paragraph (B) of OAC rule 3745-21-10, for the VOC content of each coating and ink applied, by volume of coating and ink (excluding water and exempt solvents), $C_{VOC,5}$, or by volume of volatile matter in the coatings/inks, $C_{VOC,6}$, shall be maintained on file and shall be made available upon request. The VOC content shall be determined by using U.S. EPA Method 24A for the flexographic and rotogravure printing inks and coatings; or the ink/coating formulation data from the manufacturer may be used if based on the same method.
- (2) The permittee shall collect and record the following information each month and shall maintain the information at the facility for 5 years:
 - a. the company identification for each coating, ink, and cleanup material employed in the printing lines;
 - b. the number of gallons or pounds of each coating, ink, and cleanup material employed in the emissions units during the month;
 - c. the VOC content of each coating, ink, and cleanup material employed in the emissions units, in pounds per gallon or percent by weight;
 - d. the individual HAP content of each coating, ink, and cleanup material employed in the emissions units;
 - e. the total combined HAP content of each coating, ink, and cleanup material employed in the emissions units (sum of all the individual HAP contents from section d)(2)d);
 - f. the total facility VOC emission rate for each emissions unit, in pounds or tons per month, i.e., the summation of the products of "b" times "c" above, for all the materials applied during the month, and the rolling 12-month summation of VOC emissions;
 - g. the total facility individual HAP emission rate for each emissions unit, in pounds or tons per month, i.e., the summation of the products of "b" times "d" above, for all the materials applied during the month, and the rolling 12-month summation of individual HAP emissions; and
 - h. the total facility total combined HAP emission rate for each emissions unit, in pounds or tons per month, i.e., the summation of the products of "b" times "e" above, for all the materials applied during the month, and the rolling 12-month summation of total combined HAP emissions.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. all exceedances of the rolling, 12-month emission limitation for VOC;
 - ii. all exceedances of the rolling, 12-month emission limitation for individual HAPs; and
 - iii. all exceedances of the rolling, 12-month emission limitation for combined HAPs.
 - 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 Director (the appropriate District Office or local air agency).

- (3) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services 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.
- (4) The permittee shall include in the Permit Evaluation Report any deviations from the VOC content limitation of the coatings and inks employed in the flexographic, packaging rotogravure, and publication rotogravure printing lines, calculated as specified in 3745-21-10(B) of the Administrative Code.

f) Testing Requirements

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

a. Emission Limitation:

VOC emissions shall not exceed 2.69 pounds per hour.

Applicable Compliance Method:

Hourly potential emissions are equivalent to the limitation established in accordance with OAC rule 3745-3105(A)(3).

b. Emission Limitation:

The VOC content of the inks employed in the printing lines shall not exceed 40% VOC by volume of the ink, excluding water and exempt solvents.

Or

The VOC content of the inks employed in the printing line(s) shall not exceed 25% VOC by volume of the volatile matter in the ink.

Applicable Compliance Method:

Using U.S. EPA Method 24A for flexographic and rotogravure printing inks and coatings or the formulation data from the manufacturer, the VOC content shall be calculated as follows:

$$C_{VOC,5} = (100)(V_{VOC}) / (V_S + V_{VOC})$$

Where:

$C_{VOC,5}$ is the VOC content in percentage VOC by volume of the coating, excluding water and exempt solvents

V_{VOC} is the volume fraction of VOC in the ink, calculated as:

$$V_{VOC} = V_{VM} - V_W - V_{ES}$$

V_S is the volume fraction of solids (nonvolatile matter) in ink, in gallon of solids per gallon of ink

V_{VM} is the volume fraction of volatile matter in ink, in gallon of volatile matter per gallon of ink

V_W is the volume fraction of water in ink, in gallon of water per gallon of ink

V_{ES} is the volume fraction of exempt solvent in ink, in gallon of exempt solvent per gallon of ink

OR

Using U.S. EPA Method 24A for flexographic and rotogravure printing inks and coatings or the formulation data from the manufacturer, the VOC content shall be calculated as follows:

$$C_{VOC,6} = (100)(V_{VOC}) / V_{VM}$$

Where:

$C_{VOC,6}$ is the VOC content in percentage VOC by volume of the volatile matter

V_{VOC} is the volume fraction of VOC in the ink, calculated as:

$$V_{VOC} = V_{VM} - V_W - V_{ES}$$

V_{VM} is the volume fraction of volatile matter in ink, in gallon of volatile matter per gallon of ink

V_W is the volume fraction of water in ink, in gallon of water per gallon of ink

V_{ES} is the volume fraction of exempt solvent in ink, in gallon of exempt solvent per gallon of ink

c. Emission Limitation:

Employ coatings/inks in the packaging rotogravure or flexographic packaging printing lines that do not exceed the following VOC content limitations:

0.8 pound of VOC per pound of solids applied; or

0.16 pound of VOC per pound of coating applied.

Applicable Compliance Method:

Using U.S. EPA Method 24A for flexographic and rotogravure printing inks and coatings or the formulation data from the manufacturer, the VOC content shall be calculated as follows:

$$C_{VOC,4} = W_{VOC} / W_S$$

Where:

$C_{VOC,4}$ is the VOC content in pounds of VOC per pound of solids applied

W_{VOC} is the weight fraction of VOC in the ink/coating, in pound of VOC per pound of solids applied, calculated as:

$$W_{VOC} = W_{VM} - W_W - W_{ES}$$

W_{VM} is the weight fraction of volatile matter in the ink/coating, in pound of volatile matter per pound of ink/coating;

W_W is the weight fraction of water in the ink/coating, in pound of water per pound of ink/coating; and

W_{ES} is the weight fraction of exempt solvent in ink/coating, in pound of exempt solvent per pound of ink/coating; **or**

The weight fraction of volatile matter in each ink and coating employed in the packaging rotogravure or flexographic packaging printing lines, W_{VM} , is tested or documented to be equal to or less than 0.16 pound of VOC per pound of ink/coating applied.

The VOC contents of the inks and coating employed can be averaged for each press to demonstrate compliance with the VOC limitation.

d. Emission Limitations:

Combined annual emissions from the entire facility shall not exceed the following as a rolling, 12-month summation:

95 tons per year of VOC;

24 tons per year of combined hazardous air pollutants (HAPs); and

9.0 tons per year of any individual HAP.

Applicable Compliance Method:

Compliance shall be demonstrated in accordance with the record keeping requirements in section d)(2) above.

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

g) Miscellaneous Requirements

- (1) None.