



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

1/17/2013

Jeffrey Menolascino
Hess Print Solutions
3765 Sunnybrook Road
Brimfield, OH 44240

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

Facility ID: 1667000047
Permit Number: P0111899
Permit Type: Initial Installation
County: Portage

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
Yes	SYNTHETIC MINOR TO AVOID TITLE V
Yes	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

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

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
122 South Front Street
Columbus, Ohio 43215

and Akron Regional Air Quality Management District
146 South High Street, Room 904
Akron, OH 44308

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Akron Regional Air Quality Management District at (330)375-2480.

Sincerely,

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

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

PUBLIC NOTICE

1/17/2013 Issuance of Draft Air Pollution Permit-To-Install and Operate

Hess Print Solutions

3765 Sunnybrook Road,

Brimfield Twp., OH 44240

Portage County

FACILITY DESC.: Books Printing

PERMIT #: P0111899

PERMIT TYPE: Initial Installation

PERMIT DESC: Federally Enforceable Permit-to-Install and Operate for the installation of two Heatset Web Offset Printing Presses (K011 and K012).

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the permit # or: Laura Miracle, Akron Regional Air Quality Management District, 146 South High Street, Room 904, Akron, OH 44308. Ph: (330)375-2480



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description: Hess Print Solutions currently consists of 7 heatset web offset printing presses (K001 through K006 and K009) and 1 non-heatsetsheetfed printing press (K008). Hess Print Solutions is applying for an installation permit for two new heatset web offset printing presses (K011 and K012). Additionally, Hess Print Solutions plans on permanently shutting down two of the existing heatset web offset printing presses (K001 and K002).
3. Facility Emissions and Attainment Status: The current federally enforceable permit to install and operate (FEPTIO) limits emissions units K001 through K006 and K009 to 48.3 tons of organic compounds (OC) per rolling 12-month period and emissions unit K008 to 39.2 tons of OC per rolling 12-month period through usage restrictions. The OC emissions are limited to 87.5 tons per year for all the presses. Emissions units K011 and K012 will have potential volatile organic compounds (VOC) emissions of 71.95 tons per year which results in a potential to emit over the Title V threshold. Hess Print Solutions has requested to further reduce the VOC emissions to limit for emissions unit K008 including one Pre Press operation to 16.20 tons of VOC per year, for emissions units K001 through K006 and K008 and three Pre Press Operations to 48.30 tons of VOC per year and for emissions units K011 and K012 to 23.0 tons of VOC per year. This results in a 87.5 tons of VOC per year limitation. Portage County is non-attainment for ozone and PM2.5.
4. Source Emissions: This permit will limit the VOC emissions to 23.0 tons per rolling, 12-month period for emissions units K011 and K012. In addition renewal permit P0110250 will limit emissions unit K008 and one Pre Press to 16.20 tons of VOC per rolling, 12-month period and emissions units K001 through K006, K009 and three Pre Presses to 48.30 tons of VOC per rolling, 12-month period. The natural gas combustion emissions from the facility and exempt emissions units result in VOC emissions of 11.53 tons per year. The facility-wide VOC emissions total 99.0 tons per year which is under the Title V threshold for VOC emissions. This permit will also limit the any individual HAP and combined HAPs to 8.0 and 20.0 tons per year rolling, 12-month period to avoid Title V permitting.
5. Conclusion: By establishing usage restrictions on K001 through K006, K008, K009 and the four Pre Presses and emission limitation restrict for emissions units K011 and K012, the facility will be under the Title V threshold for VOC, any individual HAP and combined HAPs. The record keeping and reporting requirements will ensure that the facility is in compliance with the emission and usage limitations.
6. Please provide additional notes or comments as necessary:

None



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

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	23.6
CO	8.94
NO _x	10.6
SO ₂	0.08
PE	6.5



DRAFT

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Hess Print Solutions**

Facility ID:	1667000047
Permit Number:	P0111899
Permit Type:	Initial Installation
Issued:	1/17/2013
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



Division of Air Pollution Control
Permit-to-Install and Operate
for
Hess Print Solutions

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Draft Permit-to-Install and Operate

Hess Print Solutions

Permit Number: P0111899

Facility ID: 1667000047

Effective Date: To be entered upon final issuance

Authorization

Facility ID: 1667000047
Application Number(s): A0045959
Permit Number: P0111899
Permit Description: Federally Enforceable Permit-to-Install and Operate for the installation of two Heatset Web Offset Printing Presses (K011 and K012).
Permit Type: Initial Installation
Permit Fee: \$400.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 1/17/2013
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

Hess Print Solutions
3765 Sunnybrook Road
Brimfield Twp., OH 44240

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:

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: P0111899
Permit Description: Federally Enforceable Permit-to-Install and Operate for the installation of two Heatset Web Offset Printing Presses (K011 and K012).

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

Group Name: Heatset Web Offset Printing

Emissions Unit ID:	K011
Company Equipment ID:	Press 211
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	K012
Company Equipment ID:	Press 212
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Draft Permit-to-Install and Operate
Hess Print Solutions
Permit Number: P0111899
Facility ID: 1667000047
Effective Date: To be entered upon final issuance

A. Standard Terms and Conditions



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

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

2. Who is responsible for complying with this permit?

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

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

3. What records must I keep under this permit?

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

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

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

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

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

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. 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.



Draft Permit-to-Install and Operate

Hess Print Solutions

Permit Number: P0111899

Facility ID: 1667000047

Effective Date: To be entered upon final issuance

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) 2, 3, 4, 4.a), 4.b), 4.c), 4.d), 5 and 6.
2. The emissions of any individual hazardous air pollutant (HAP) from emissions units K003, K004, K005, K006, K008, K009, K011, K012 and the four Pre Presses*, combined, shall not exceed 8.0 tons per year, based upon a rolling, 12-month summation of the monthly emissions.
3. The emissions of combined hazardous air pollutants (HAPs) from emissions units K003, K004, K005, K006, K008, K009, K011, K012 and the four Pre Presses*, combined, shall not exceed 20.0 tons per year, based upon a rolling, 12-month summation of the monthly emissions.

*The four Pre Presses are considered exempt per OAC rule 3745-15-05 based on daily and annual record keeping of the actual emissions. The potential to emit for the four Pre Presses for an individual HAP and combined HAPs is over 10 tons per year and 14 tons per year, respectively.
4. In order to demonstrate compliance with the emission limitations in 2 and 3 above, the permittee shall collect and record the following information monthly for emissions units K003, K004, K005, K006, K008, K009, K011, K012 and the four Pre Presses:
 - a) For emissions units K003, K004, K005, K006, K009, K011 and K012:
 - (1) the company identification for each coating, concentrated fountain solution, automatic cleanup material and manual cleanup material employed;
 - (2) the amount of each coating, concentrated fountain solution, automatic cleanup material and manual cleanup material employed, in pounds or number of rolls used;
 - (3) the individual HAP content of each HAP of each coating, concentrated fountain solution, automatic cleanup material and manual cleanup material employed, in weight percent or pound(s) per roll;
 - (4) the combined HAPs content of each coating, concentrated fountain solution, automatic cleanup material and manual cleanup material employed (the sum of all the individual HAP contents in a)(3) above), in weight percent or pounds per roll;
 - (5) the uncontrolled individual HAP emission rate for each HAP from all coatings employed, in pounds per month (i.e., the sum of [a)(2) x a)(3)/100] for each HAP for each coating employed);



- (6) the controlled individual HAP emission rate for each HAP from all coatings employed, in tons per month (i.e., $[(0.80) \times a)(5) \times (1 - \text{destruction efficiency}^*)]^{**}$, and then divided by 2000 for each HAP);
- (7) the uncontrolled combined HAPs emission rate from all coatings employed, in pounds per month (i.e., the sum of $[a)(2) \times a)(4)/100]$ for each coating employed);
- (8) the controlled combined HAPs emission rate for each HAP from all coatings employed, in tons per month (i.e., $[(0.80) \times a)(7) \times (1 - \text{destruction efficiency}^*)]^{**}$, and then divided by 2000);
- (9) the uncontrolled individual HAP emission rate for each HAP from all concentrated fountain solutions employed, in pounds per month (i.e., the sum of $[a)(2) \times a)(3)/100]$ for each HAP for each fountain solution employed);
- (10) the controlled individual HAP emission rate for each HAP from all concentrated fountain solutions employed, in tons per month (i.e., $[a)(9) \times [1 - ((0.7) \times \text{destruction efficiency}^*)]^{**}$, and then divided by 2000 for each HAP);
- (11) the uncontrolled combined HAPs emission rate from all concentrated fountain solutions employed, in pounds per month (i.e., the sum of $[a)(2) \times a)(4)/100]$ for each fountain solution employed);
- (12) the controlled combined HAPs emission rate from all concentrated fountain solutions employed, in tons per month (i.e., $[a)(11) \times [1 - ((0.7) \times \text{destruction efficiency}^*)]^{**}$, and then divided by 2000);
- (13) the individual HAP emission rate for each HAP from all manual cleanup materials employed, in tons per month (i.e., the sum of $[(0.5) \times a)(2) \times a)(3)]^{**}$ for each HAP for each cleanup material employed, and then divided by 2000);
- (14) the combined HAPs emission rate from all manual cleanup materials employed, in tons per month (i.e., the sum of $[(0.5) \times a)(2) \times a)(4)]^{**}$ for each cleanup material employed, and then divided by 2000);
- (15) the total uncontrolled individual HAP emission rate for each HAP from all automatic cleanup material employed, in pounds per month (i.e., the sum of $[a)(2) \times a)(3)/100]$ for each automatic cleanup material employed);
- (16) the total controlled individual HAP emission rate for each HAP from all automatic cleanup material employed, in tons per month (i.e., $[a)(15) \times (1 - ((0.4) \times \text{destruction efficiency}^*))]^{**}$, and then divided by 2000);
- (17) the total uncontrolled combined HAP emission rate for each HAP from all automatic cleanup material employed, in pounds per month (i.e., the sum of $[a)(2) \times a)(4)/100]$ for each automatic cleanup material employed);
- (18) the total controlled combined HAP emission rate for each HAP from all automatic cleanup material employed, in tons per month (i.e., $[a)(17) \times (1 - ((0.4) \times \text{destruction efficiency}^*))]^{**}$, and then divided by 2000);



- (19) the individual HAP emission rate for each HAP from all automatic and manual cleanup materials, all concentrated fountain solutions and all coatings employed, in tons per month (i.e., [a)(6) + a)(10)+ a)(13) + a)(16) for each HAP]); and
 - (20) the combined HAPs emission rate from all cleanup materials, all concentrated fountain solutions and all coatings employed, in tons per month (i.e., [a)(8) + a)(12) + a)(14) +a)(18)]).
- b) For emissions unit K008:
- (1) the company identification for each non-heatset ink, aqueous coating, concentrated fountain etch solution, fountain solution additive, manual cleanup material and automatic cleanup material employed;
 - (2) the amount of each non-heatset ink, aqueous coating, concentrated fountain etch solution, fountain solution additive, manual cleanup material and automatic cleanup material employed, in pounds;
 - (3) the individual HAP content of each HAP of each non-heatset ink, aqueous coating, concentrated fountain etch solution, fountain solution additive, manual cleanup material and automatic cleanup material employed, in weight percent;
 - (4) the combined HAPs content of each non-heatset ink, aqueous coating, concentrated fountain etch solution, fountain solution additive, manual cleanup material and automatic cleanup material employed (the sum of all the individual HAP contents in b)(3) above), in weight percent;
 - (5) the individual HAP emission rate for each HAP from all non-heatset inks employed, in tons (i.e., the sum of [b)(2) x b)(3)/100] x 0.05*** for each HAP for each non-heatset ink employed, and then divided by 2000);
 - (6) the combined HAPs emission rate from all non-heatset inks employed, in tons (i.e., the sum of [b)(2) x b)(4)/100] x 0.05*** for each non-heatset ink employed, and then divided by 2000);
 - (7) the individual HAP emission rate for each HAP from all aqueous coatings employed, in tons (i.e., the sum of [b)(2) x b)(3)/100] for each HAP for each aqueous coating employed, and then divided by 2000);
 - (8) the combined HAPs emission rate from all aqueous coatings employed, in tons (i.e., the sum of [b)(2) x b)(4)/100] for each aqueous coating employed, and then divided by 2000);
 - (9) the individual HAP emission rate for each HAP from all concentrated fountain etch solutions employed, in tons (i.e., the sum of [b)(2) x b)(3)/100] for each HAP for each concentrated fountain etch solution employed, and then divided by 2000);
 - (10) the combined HAPs emission rate from all concentrated fountain etch solutions employed, in tons (i.e., the sum of [b)(2) x b)(4)/100] for each concentrated fountain etch solution employed, and then divided by 2000);



- (11) the individual HAP emission rate for each HAP from all fountain solution additives employed, in tons (i.e., the sum of $[b](2) \times b(3)/100$] for each HAP for each fountain solution additive employed, and then divided by 2000);
 - (12) the combined HAPs emission rate from all fountain solution additives employed, in tons (i.e., the sum of $[b](2) \times b(4)/100$] for each fountain solution additive employed, and then divided by 2000);
 - (13) the individual HAP emission rate for each HAP from all manual cleanup materials employed, in tons (i.e., the sum of $[b](2) \times b(3)/100$] $\times 0.5^{****}$ for each HAP for each manual cleanup material employed, and then divided by 2000);
 - (14) the combined HAPs emission rate from all manual cleanup materials employed, in tons (i.e., the sum of $[b](2) \times b(4)/100$] $\times 0.5^{****}$ for each manual cleanup material employed, and then divided by 2000);
 - (15) the individual HAP emission rate for each HAP from all automatic cleanup materials employed, in tons (i.e., the sum of $[b](2) \times b(3)/100$] for each HAP for each automatic cleanup material employed, and then divided by 2000);
 - (16) the combined HAPs emission rate from all automatic cleanup materials employed, in tons (i.e., the sum of $[b](2) \times b(4)/100$] for each automatic cleanup material employed, and then divided by 2000);
 - (17) the individual HAP emission rate for each HAP from all non-heatset ink, all aqueous coating, all concentrated fountain etch solution, all fountain solution additive, all manual cleanup material and all automatic cleanup material employed, in tons per month (i.e., $[b](5) + b(7) + b(9) + b(11) + b(13) + b(15)$] for each HAP); and
 - (18) the combined HAPs emission rate from all non-heatset ink, all aqueous coating, all concentrated fountain etch solution, all fountain solution additive, all manual cleanup material and all automatic cleanup material employed, in tons per month (i.e., $[b](6) + b(8) + b(10) + b(12) + b(14) + b(16)]$).
- c) For the four Pre Presses:
- (1) the company identification for each material employed;
 - (2) the amount of each material employed, in gallons;
 - (3) the individual HAP content of each HAP of each material employed, in pound(s) of each HAP per gallon of material;
 - (4) the individual HAP emission rate for each HAP from all materials employed, in pounds per month (i.e., the sum of $[c](2) \times c(3)$] for each HAP for each material employed); and
 - (5) the combined HAPs emission rate from all materials employed, in tons (i.e., the summation of all the individual HAPs emissions from c)(4) above).



- d) For emissions units K003, K004, K005, K006, K008, K009, K011, K012 and the four Pre Presses:
 - (1) the total individual HAP emission rate for each HAP, in tons per month (i.e., a)(19) + b)(17) + c)(4) for each HAP);
 - (2) the total combined HAPs emission rate, in tons per month (i.e., a)(20) + b)(18) + c)(5));
 - (3) the rolling, 12-month summations of individual HAP emissions for each HAP for each month, in tons; and
 - (4) the rolling, 12-month summations of the total combined HAPs emissions for each month, in tons.

If the rolling, 12-month summation of combined HAPs is 8.0 tons per year or less for each month, then the rolling, 12-month summations of each individual HAP do not need to be calculated unless any subsequent rolling, 12-month summation exceeds 8.0 tons per year.

* The permittee shall use the destruction efficiency from the most recent performance test that demonstrated that the emissions unit(s) was (were) in compliance.

**Per Ohio EPA Division of Air Pollution Control, Engineering Section, Engineer Guide #56 revised June 15, 1999, the following assumptions shall be used in calculating the HAP emissions: 20 percent, by weight, of the solvent in the coatings is retained in the web or substrate and the remaining 80 percent, by weight, is vented to the oxidizer; 30 percent, by weight, of the fountain solution emissions are fugitive and the remaining 70 percent, by weight, are vented to the oxidizer for fountain solutions containing only alcohol substitutes; and 50 percent, by weight, of the manual cleanup material is retained in the cleanup cloths and the remaining 50 percent, by weight, is fugitive emissions if the solvent has a vapor pressure of 10 mm Hg or lower at 20 degrees Celsius (68 degrees Fahrenheit).

***Ohio EPA, Division of Air Pollution Control, Engineering Section, Engineering Guide #68 (dated July 7, 1997) states that only 5% of the ink solvent is emitted from non-heatset inks.

****Ohio EPA, Division of Air Pollution Control, Engineering Section, Engineering Guide #68 (dated July 7, 1997) states 50% of the solvent is retained in the shop towel and 50% is emitted for cleanup solvents which have a composite vapor pressure less than 10 millimeters of mercury at 20 degrees Celsius.

- 5. 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:
 - (1) all exceedances of the rolling, 12-month emission limitation for any individual HAP; and
 - (2) all exceedances of the rolling, 12-month emission limitation for the total 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).

6. Compliance with the Emissions Limitations and/or Control Requirements specified in 2 and 3 above shall be determined in accordance with the following methods:

a) Emission Limitations:

The emissions of any individual HAP from emissions units K003, K004, K005, K006, K008, K009, K011, K012 and the four Pre Presses, combined, shall not exceed 8.0 tons per year, based upon a rolling, 12-month summation of the monthly emissions.

The emissions of combined HAPs from emissions units K003, K004, K005, K006, K008, K009, K011, K012 and the four Pre Presses, combined, shall not exceed 20.0 tons per year, based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method:

Compliance with the annual allowable emission limitations above shall be demonstrated through the record keeping requirements established in 4.a), 4.b), 4.c) and 4.d) above. Formulation data shall be used to determine the HAP content of the non-heatset inks, aqueous coatings, coatings, concentrated fountain solutions, concentrated fountain etch solutions, fountain solution additives, cleanup materials and the materials employed on the Pre Presses.



Draft Permit-to-Install and Operate

Hess Print Solutions

Permit Number: P0111899

Facility ID: 1667000047

Effective Date: To be entered upon final issuance

C. Emissions Unit Terms and Conditions



1. Emissions Unit Group -Heatset Web Offset Printing: K011,K012,

EU ID	Operations, Property and/or Equipment Description
K011	8-Unit Harris M1000B Heatset Web Offset Printing Press No. 211
K012	8-Unit Harris M1000BE Heatset Web Offset Printing Press No. 212

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. g)(1).

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

a. b)(1)h., b)(2)i., d)(1), d)(2), d)(3), d)(4), e)(1), e)(2)c., f)(1), f)(2), f)(3), f)(4), f)(5)h. and f)(5)i.

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.	ORC 3704.03(T)	The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-31-05(D). The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07, 3745-17-11 and 3745-21-22.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	For emissions units K011 and K012: Natural gas combustion emissions from the two dryer ovens of each emissions unit shall not exceed the following: 1.02 pounds of carbon monoxide (CO) per hour and 4.47 tons of CO per year; 1.21 pounds of nitrogen oxides (NO _x) per



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	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>hour and 5.3 tons of NO_x per year;</p> <p>0.07 pound of volatile organic compounds (VOC) per hour and 0.3 ton of VOC per year; and</p> <p>0.01 pound of sulfur dioxide (SO₂) per hour and 0.04 ton of SO₂ per year.</p> <p>See b)(2)a. and b)(2)b. below.</p>
c.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)c below.
d.	OAC rule 3745-17-07	For emissions units K011 and K012, visible particulate emissions (PE) from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
e.	OAC rule 3745-17-11	For emissions units K011 and K012: The PE from each emissions unit shall not exceed 0.74 pound per hour (including combustion emissions).
f.	OAC rule 3745-21-07(M)(3)(c)(vi)	Exempt.
g.	OAC rule 3745-22-21(D)	<p>The permittee shall maintain the dryer air pressure lower than the pressroom air pressure at all times the press is operating and operate a control system.</p> <p>The control efficiency requirement specified by this rule is less stringent than the control efficiency requirement established pursuant to OAC rule 3745-31-05(D).</p> <p>See b)(2)d. through b)(2)g. below.</p>
h.	OAC rule 3745-31-05(D) (Synthetic Minor to Avoid Title V Permitting)	<p>The control (destruction) efficiency of the RTO thermal oxidizer shall be at least 95%, by weight for VOC and organic hazardous air pollutant (HAP).</p> <p>See b)(2)h. below.</p> <p>The emissions of VOC from emissions units K011 and K012, combined, shall not exceed 23.0 tons per year, based upon a rolling, 12-month summation of the monthly emissions.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>See b)(2)i. below.</p> <p>See 2 through 6 of Section B – Facility-Wide Terms and Conditions.</p>

(2) Additional Terms and Conditions

- a. For emissions units K011 and K012, the hourly and annual CO, NO_x, SO₂ and VOC emission limitations from natural gas combustion regulated per OAC rule 3745-31-05(A)(3) are based on the emissions unit's potentials to emit. Therefore, no record keeping or reporting is required to demonstrate compliance with these emission limitations.
- b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (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 the Ohio Revised Code (ORC) changes effective August 3, 2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standards (NAAQS) pollutant(s) 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 limitations/control measures no longer apply.
- c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO, NO_x, OC and SO₂ emissions from the two dryer ovens of each emissions unit listed above since the uncontrolled potential to emit for CO, NO_x, VOC and SO₂ is each less than 10 tons per year.
- d. The permittee shall 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.
- e. The permittee shall maintain the as-applied VOC composite partial vapor pressure at or below ten mm Hg at twenty degrees Celsius (sixty-eight degrees Fahrenheit) for each cleaning solution used for cleaning on the press.
- f. The permittee shall keep all solvent containers closed at all times unless filling, draining, or performing cleanup operations.
- g. The permittee shall keep all solvent-laden shop towels in closed containers when not being used.



- h. The OC and organic HAP emissions from the emissions units listed above shall be vented to the RTO thermal oxidizer when the emissions unit(s) is/are in operation.
- i. The emissions of VOC from emissions units K011 and K012 shall not exceed 23.0 tons per year, based upon a rolling, 12-month summation of the monthly emissions. To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the emission levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Emissions of VOC (Tons)
1	1.9
1-2	3.8
1-3	5.8
1-4	7.7
1-5	9.6
1-6	11.5
1-7	13.4
1-8	15.3
1-9	17.3
1-10	19.2
1-11	21.1
1-12	23.0

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual emission limitation for VOC shall be based upon a rolling, 12-month summation of the monthly emissions.

- c) Operational Restrictions
 - (1) The dryer ovens for the emissions units listed above shall only employ natural gas.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall collect and record the following information monthly for emissions units K011 and K012, combined:



- a. the company identification for each coating, concentrated fountain solution and cleanup material employed;
- b. the amount of each coating, concentrated fountain solution, automatic cleanup material and manual cleanup material employed, in pounds or number of rolls used;
- c. the VOC content of each coating, concentrated fountain solution, automatic cleanup material and manual cleanup material employed, in weight percent or pound(s) per roll ;
- d. the total uncontrolled VOC emission rate from all coatings employed, in pounds per month (i.e., [(b) x (the worst-case VOC content in weight percent of all the coatings employed in the month)/100] or the sum of [(b) x (c)/100] for each coating employed);
- e. the total controlled VOC emission rate from all coatings employed, in tons per month (i.e., [(0.80) x (d) x (1-destruction efficiency*)]**, and then divided by 2000);
- f. the total uncontrolled VOC emission rate from all concentrated fountain solutions employed, in pounds per month (i.e., the sum of [(b) x (c)/100] for each concentrated fountain solution employed);
- g. the total controlled VOC emission rate from all concentrated fountain solutions employed, in tons per month (i.e., [(f) x (1- ((0.7) x destruction efficiency*))]**, and then divided by 2000);
- h. the total VOC emission rate from all manual cleanup materials employed, in tons per month (i.e., the sum of (0.5) x (b) x (c)** for each cleanup material employed, and then divided by 2000);
- i. the total uncontrolled VOC emission rate from all automatic cleanup material employed, in pounds per month (i.e., the sum of [(b) x (c)/100] for each automatic cleanup material employed);
- j. the total controlled VOC emission rate from all automatic cleanup material employed, in tons per month (i.e., [(i) x (1- ((0.4) x destruction efficiency*))]**, and then divided by 2000);
- k. the total VOC emission rate from the emissions units K011 and K012, combined, in tons per month (i.e., [(e) + (g) + (h) + (j)]).
- l. the rolling, 12-month summations of the VOC emissions for each month, in tons.
- m. during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative VOC emissions for each calendar month.



*The permittee shall use the destruction efficiency from the most recent performance test that demonstrated that the emissions unit(s) was (were) in compliance.

**Per Ohio EPA Division of Air Pollution Control, Engineering Section, Engineer Guide #56 revised June 15, 1999, the following assumptions shall be used in calculating the VOC emissions: 20 percent, by weight, of the solvent in the coatings is retained in the web or substrate and the remaining 80 percent, by weight, is vented to the oxidizer; 30 percent, by weight, of the fountain solution emissions are fugitive and the remaining 70 percent, by weight, are vented to the oxidizer for fountain solutions containing only alcohol substitutes; and 50 percent, by weight, of the manual cleanup material is retained in the cleanup cloths and the remaining 50 percent, by weight, is fugitive emissions if the solvent has a vapor pressure of 10 mm Hg or lower at 20 degrees Celsius (68 degrees Fahrenheit).

- (2) 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.
- (3) The permittee shall install and operate continuous temperature monitoring and recording equipment that measures and records temperature data at least once every fifteen minutes, and shall collect and record the following information and maintain the information at the facility for a period of five years:
 - a. a log or record of any time when the control device and/or, monitoring equipment, are not in operation when any associated press is in operation; and
 - b. for thermal oxidizers all three-hour periods of operation during which the average combustion temperature was more than fifty degrees Fahrenheit below the average combustion temperature during the most recent emission test that demonstrated that the emissions units listed above were in compliance.
- (4) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
 - a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.



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

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

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

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

- (5) The VOC content of the as-applied fountain solution shall be determined by one of the methods in d)(5)a. to d)(5)c.:
 - a. U.S. EPAMethod 24 shall be used to determine the VOC content of the as-applied fountain solution;
 - b. If diluted prior to use, a calculation shall be performed for VOC content that combines U.S. EPAMethod 24 analytical data for the concentrated materials used to prepare the as-applied fountain solution and the proportions in which they are mixed to make the as-applied fountain solution. The analysis of the concentrated material(s) may be performed by the supplier(s) of those material(s). The analytical data may be derived from a material safety data sheet (MSDS) or equivalent information from the supplier as long as it is based on U.S. EPAMethod 24 results; or
 - c. If not diluted prior to use, the permittee shall use formulation information provided by the supplier, such as a MSDS sheet or equivalent information from the



supplier. In the event of a dispute between information provided by the supplier and data obtained by U.S. EPA Method 24, the data obtained by U.S. EPA Method 24 shall be employed.

- (6) The VOC composite partial vapor pressure of cleaning solutions shall be determined by one of the following methods:
- a. If diluted prior to use, calculate the VOC composite vapor pressure of the as-applied solvent by using the formula for “VOC composite vapor pressure” as follows:
 - i. Determine the identity and quantity of each compound in a blended organic solvent by using ASTM D2306, or by using ASTM E260 for organics and ASTM D3792 for water content, if applicable, or the manufacturer’s product formulation data.
 - ii. Determine the vapor pressure of each pure VOC component by using ASTM D2879 or publications such as “Perry’s Chemical Engineer’s Handbook, CRC Handbook of Chemistry and Physics, or Lange’s Handbook of Chemistry.”
 - iii. Calculate the VOC composite partial pressure of the solvent by using the formula for “VOC composite partial pressure.” For the purpose of this calculation, the blended solvent shall be assumed to be an ideal solution where “Raoult’s Law” applies. The partial vapor pressures of each compound at twenty degrees Celsius (sixty-eight degrees Fahrenheit) shall be used in the formula. The VOC composite partial pressure shall be calculated as follows:

$$PP_c = \sum_{i=1}^n \frac{\frac{(W_i)(VP_i)}{MW_i}}{\frac{W_w}{MW_w} + \frac{W_e}{MW_e} + \sum_{i=1}^n \frac{W_i}{MW_i}}$$

Where:

W_i = Weight of the “i”th VOC compound, in grams.

W_w = Weight of water, in grams.

W_e = Weight of exempt compound, in grams.

MW_i = Molecular weight of the “i”th VOC compound, in grams per gram-mole.

MW_w = Molecular weight of water, in grams per gram-mole.

MW_e = Molecular weight of the “e”th exempt compound, in grams per gram-mole.



PP_c = VOC composite partial vapor pressure at twenty degrees Celsius (sixty-eight degrees Fahrenheit), in mmHg.

VP_i = Vapor pressure of the "i"th VOC compound at twenty degrees Celsius (sixty-eight degrees Fahrenheit), in mmHg.

- b. If not diluted prior to use, the permittee shall use formulation information provided by the supplier, such as a MSDS or equivalent information from the supplier as long as it is based on results determined in accordance with the procedure under d)(6)a. above.
- (7) The permittee shall maintain records, for a period of five years, of one of the following for fountain solution preparation:
- a. For a permittee 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 U.S. EPA 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.
 - (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.
 - iv. An affirmation the batch was prepared in accordance with the recipe.
 - b. For a permittee not maintaining a recipe log in accordance with paragraph d)(7)a. above, 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 U.S. EPA 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.
- v. The date and time the batch was prepared.

For purposes of d)(7)a. and d)(7)b. above, 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.

- (8) The permittee shall maintain records, for a period of five years, of the following for all cleaning solutions employed in all the offset lithographic and letterpress printing operations:
 - a. For a permittee 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 VOC composite partial vapor pressure of each cleaning solution, based upon the method under d)(6) above.
 - ii. Identification of the recipe used to prepare each batch of cleaning solution.
 - iii. The date and time when the batch was prepared.
 - iv. An affirmation the batch was prepared in accordance with the recipe.
 - b. For a permittee not maintaining a recipe log in accordance with d)(8)(a) above, for each batch of cleaning solution prepared, records of the VOC composite partial vapor pressure and the date and time the batch was prepared.

e) Reporting Requirements

- (1) 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 usage limitation for coatings and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative coating usage levels;
 - ii. all exceedances of the rolling, 12-month usage limitation for cleanup materials and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative cleanup material usage levels;



- iii. all exceedances of the rolling, 12-month usage limitation for concentrated fountain solutions and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative fountain solution usage levels;
 - iv. all exceedances of the rolling 12-month emission limitation for VOC;
 - v. all exceedances of the VOC content limitation for coatings; and
 - vi. all exceedances of the VOC content limitation for concentrated fountain solutions; and
 - vii. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer.
- 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).

- (2) The permittee shall notify the director of any of the following exceedances of the applicable requirements:
 - a. each calculated VOC content that exceeds the VOC content limitation specified in b)(2)d. above;
 - b. each instance when an exceedance of the VOC composite partial vapor pressure specified in b)(2)e. above for cleaning solutions occurs; and
 - c. all three-hour blocks of time during which the average combustion temperature within the thermal oxidizer was below the temperature limitation specified in d)(2) above.

Each notification shall be submitted to the director within forty-five days after the instance occurs, and it shall include a copy of the record showing the instance.



- (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 PER shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
- (4) The permittee shall notify the Ohio environmental protection agency district office or local air agency in writing within thirty days following the completion of any of the following requirements:
 - a. For an offset lithographic or letterpress printing press subject to the VOC emission requirements in paragraphs (D)(2) to (D)(8) of OAC rule 3745-21-22, the first documented achievement of compliance with each of the requirements;
 - b. For an offset lithographic or letterpress printing press subject to the VOC emission control requirement in paragraph (D)(1) of OAC rule 3745-21-22:
 - i. The completion of installation and initial use of a VOC emission control system for the offset lithographic or letterpress printing press;
 - ii. The completion of installation and initial use of any monitoring devices required under paragraph (G) of OAC rule 3745-21-22 for the offset lithographic printing press; and
 - iii. The completion of any compliance testing conducted in accordance with paragraph (F) of OAC rule 3745-21-22 to demonstrate compliance with the applicable control requirement.
- (5) The compliance certification under e)(4) above shall provide the following, where applicable:
 - a. A description of the requirements;
 - b. A description of the VOC emission control system;
 - c. A description of the monitoring devices;
 - d. A description of the records that document continuing compliance;
 - e. The results of any compliance tests, including documentation of test data;
 - f. The results of any records that document continuing compliance, including calculations; and
 - g. A statement by the owner or operator of the offset lithographic or letterpress printing facility as to whether the offset lithographic or letterpress printing press has complied with the requirement(s).



f) Testing Requirements

- (1) The permittee shall conduct, or have conducted, emission testing for the emissions units listed above in accordance with the following requirements:
 - a. The emission testing shall be conducted within 3 months after start-up and within 6 months prior to the permit expiration.
 - b. The emission testing shall be conducted to demonstrate compliance with the control efficiency for VOC and organic HAP and the emissions control requirements of paragraph (D)(1) of OAC rule 3745-21-22.
 - c. Compliance shall be determined by performing emission tests in accordance with the following:
 - d. the emissions units listed above shall be run at typical operating conditions and flow rates compatible with scheduled production during any emission testing.
 - e. The negative dryer pressure shall be established during the initial test using an airflow direction indicator, such as a smoke stick or aluminum ribbons, or differential pressure gauge. Capture efficiency and continuous dryer air flow monitoring is not required.
 - f. The following U.S. EPA test methods (in 40 CFR Part 60, Appendix A) shall be used to demonstrate compliance with the applicable emission control requirement in paragraph (D)(1) of OAC rule 3745-21-22:
 - i. U.S. EPA Method 1 or 1A, as appropriate, shall be used to select the sampling sites.
 - ii. U.S. EPA Method 2, 2A, 2C or 2D, as appropriate, shall be used to determine the velocity and volumetric flow rate of the exhaust stream.
 - iii. U.S. EPA Method 3 or 3A, as appropriate, shall be used to determine the concentration of O₂ and CO₂.
 - iv. U.S. EPA Method 4 shall be used to determine moisture content.
 - v. U.S. EPA Method 18, 25 or 25A shall be used to determine the VOC concentration of the exhaust stream entering and exiting the control device. In cases where the anticipated outlet VOC concentration of the control device is less than fifty ppm_v as carbon, U.S. EPA Method 25A shall be used.
 - (a) If the average concentrations in the outlet of a thermal or catalytic oxidizer measured by U.S. EPA Method 25A are found to be greater than fifty ppm_v as carbon, U.S. EPA Method 18 or 25 may be used to determine non-VOC components (methane and ethane) to correct the outlet VOC readings, unless the director determines that the uncorrected U.S. EPA Method 25A results are acceptable.



- (b) A compliance test shall consist of up to three separate runs, each lasting a minimum of sixty minutes, unless the director determines that process variables dictate shorter sampling times.
 - (c) U.S. EPA Method 25 specifies a minimum probe temperature of two hundred sixty-five degrees Fahrenheit. To prevent condensation, the probe should be heated to at least the gas stream temperature, typically close to three hundred fifty degrees Fahrenheit.
 - (d) U.S. EPA Method 25A specifies a minimum temperature of two hundred twenty degrees Fahrenheit for the sampling components leading to the analyzer. To prevent condensation when testing heatset web offset presses, the sampling components and flame ionization detector block should be heated to at least the gas stream temperature, typically close to three hundred fifty degrees Fahrenheit.
 - (e) The use of an adaptation to any of the analytical methods specified above shall be approved by the director and U.S. EPA on a case-by-case basis. The owner or operator shall submit sufficient documentation for the director and U.S. EPA to find that the analytical methods specified above will yield inaccurate results and that the proposed adaptation is appropriate.
- (2) 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).
 - (3) 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.
 - (4) 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.
 - (5) 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:

For emissions units K011 and K012: The PE from each emissions unit shall not exceed 0.74 pound per hour(including combustion emissions).

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation above shall be demonstrated through stack testing in accordance with the test method(s) and procedures in OAC rule 3745-17-03(B)(10).

b. Emission Limitation:

For emissions units K011 and K012: 1.02 pounds of CO per hour from the two dryer ovensof each emissions unit.

Applicable Compliance Method:

Compliance with the hourly allowable CO emission limitation above shall be demonstrated by multiplying the CO emission factor of 84 pounds of CO emissions per million cubic feet of natural gas* by the maximum hourly natural gas usage.

*The CO emission factor is from AP- 42, 5th edition, Table 1.4-1, dated 7/98.

c. Emission Limitation:

For emissions units K011 and K012: 1.21 pounds of NO_x per hour from the two dryer ovensof each emissions unit.

Applicable Compliance Method:

Compliance with the hourly allowable NO_x emission limitation above shall be demonstrated by multiplying the NO_x emission factor of 100 pounds of NO_x emissions per million cubic feet of natural gas* by the maximum hourly natural gas usage.

*The NO_x emission factor is from AP-42, 5th edition, Table 1.4-1, dated 7/98.

d. Emission Limitation:

For emissions units K011 and K012: 0.07 pound of VOC per hour from the two dryer ovensof each emissions unit.

Applicable Compliance Method:

Compliance with the hourly allowable VOC emission limitation above shall be demonstrated by multiplying the VOC emission factor of 5.5 pounds of VOC emissions per million cubic feet of natural gas* by the maximum yearly natural gas usage.



*The OC emission factor is from AP-42, 5th edition, Table 1.4-2, dated 7/98.

e. Emission Limitation:

For emissions units K011 and K012: 0.01 pound of SO₂ per hour from the two dryer ovensof each emissions unit.

Applicable Compliance Method:

Compliance with the hourly allowable SO₂ emission limitation above shall be demonstrated by multiplying the SO₂ emission factor of 0.6 pound of SO₂ emissions per million cubic feet of natural gas* by the maximum yearly natural gas usage.

*The SO₂ emission factor is from AP-42, 5th edition, Table 1.4-2, dated 7/98.

f. Emission Limitations:

For emissions units K011 and K012: 4.47 tons of CO per year from the two dryer ovensof each emissions unit.

For emissions units K011 and K012: 5.3 tons of NO_x per year from the two dryer ovensof each emissions unit.

For emissions units K011 and K012: 0.3 ton of VOC per year from the two dryer ovensof each emissions unit.

For emissions units K011 and K012: 0.04 ton of SO₂ per year from the two dryer ovensof each emissions unit.

Applicable Compliance Method:

Compliance with the annual allowable emission limitations above shall be demonstrated by multiplying the hourly allowable emission limitation by the 8760 hours per year, and then dividing by 2000 pounds per ton. Therefore, as long as compliance with the hourly allowable emission limitations is maintained, compliance with the annual allowable emission limitations shall be demonstrated.

g. Emission Limitation:

For emissions units K011 and K012, visible PE from anystack shall not exceed 20% opacity asa 6-minute average, except asprovided by the rule.

Applicable Compliance Method:

If required, compliance with the allowable visible PE limitation above shall be determined through visible emission observations performed in accordance with U.S. EPA Reference Method 9 in 40 CFR, Part 60, Appendix A.

h. Emission Limitation:



The control efficiency of the RTO thermal oxidizer shall be at least 95%, by weight for VOC and organic HAP

Applicable Compliance Method:

Compliance with the allowable control efficiency requirement above shall be determined in accordance with the test methods and procedures specified in f)(1) above.

i. Emission Limitation:

The emissions of VOC from emissions units K011 and K012, combined, shall not exceed 23.0 tons per year, based upon a rolling, 12-month summation of the monthly emissions.

Applicable Compliance Method:

Compliance with the annual allowable VOC emission limitation above shall be demonstrated through the record keeping requirements established in d)(1) above. Formulation data or U.S. EPA Method 24 (for coatings) or 24A (for flexographic and rotogravure printing inks and related coatings) shall be used to determine the VOC contents of the coatings and concentrated fountain solutions.

j. Emission Limitation:

The permittee shall 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.

Applicable Compliance Method:

Compliance with the allowable VOC content limitation above shall be demonstrated through the record keeping requirements in d)(5) and d)(7) above.

k. Emission Limitation:

The permittee shall maintain the as-applied VOC composite partial vapor pressure at or below ten mm Hg at twenty degrees Celsius (sixty-eight degrees Fahrenheit) for each cleaning solution used for cleaning on the press.

Applicable Compliance Method:

Compliance with the allowable VOC composite partial vapor pressure limitation above shall be demonstrated through the record keeping requirements in d)(6) and d)(8) above.

g) Miscellaneous Requirements

- (1) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions units maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be



Draft Permit-to-Install and Operate

Hess Print Solutions

Permit Number: P0111899

Facility ID: 1667000047

Effective Date: To be entered upon final issuance

less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified federally enforceable permit-to-install and operate (FEPTIO) 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 FEPTIO.