



State of Ohio Environmental Protection Agency

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P.O. Box 1049
Columbus, OH 43216-1049

10/21/2008

Certified Mail

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

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 1431340460
Permit Number: 14-06015
Permit Type: Initial Installation
County: Hamilton

Yes	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR
No	CEMS
No	MACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Hamilton County Dept. of Environmental Services. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.state.oh.us/dapc>.

Sincerely,

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

Cc: U.S. EPA Region 5 Via E-Mail Notification
Hamilton County Dept. of Environmental Services

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



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

FINAL

**Air Pollution Permit-to-Install
for
B-Way Corporation**

Facility ID: 1431340460
Permit Number: 14-06015
Permit Type: Initial Installation
Issued: 10/21/2008
Effective: 10/21/2008



State of Ohio Environmental Protection Agency
 Division of Air Pollution Control

Air Pollution Permit-to-Install
 for
 B-Way Corporation

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State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 14-06015
Facility ID: 1431340460
Effective Date: 10/21/2008

Authorization

Facility ID: 1431340460
Facility Description: Print and manufacture cans
Application Number(s): A0010988
Permit Number: 14-06015
Permit Description: This PTI application accounts for the installation of two new printing lines as well as modification of two existing printing lines at the facility.
Permit Type: Initial Installation
Permit Fee: \$800.00
Issue Date: 10/21/2008
Effective Date: 10/21/2008

This document constitutes issuance to:

B-Way Corporation
8200 Broadwell Road
Cincinnati, OH 45244

Of a Permit-to-Install 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:

Hamilton County Dept. of Environmental Services
250 William Howard Taft Pkwy.
Cincinnati, OH 45219-2660
(513)946-7777

The above named entity is hereby granted a Permit-to-Install for the 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 emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director



Authorization (continued)

Permit Number: 14-06015

Permit Description: This PTI application accounts for the installation of two new printing lines as well as modification of two existing printing lines at the facility.

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

Emissions Unit ID:	K049
Company Equipment ID:	Litho 6
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	K052
Company Equipment ID:	Litho 7
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	K057
Company Equipment ID:	PC-8
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	K058
Company Equipment ID:	PC-9
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 14-06015
Facility ID: 1431340460
Effective Date: 10/21/2008

A. Standard Terms and Conditions



1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
 - (1) Standard Term and Condition A. 2.a), Severability Clause
 - (2) Standard Term and Condition A. 3.c) through A. 3.e) General Requirements
 - (3) Standard Term and Condition A. 6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A. 9., Reporting Requirements
 - (5) Standard Term and Condition A. 10., Applicability
 - (6) Standard Term and Condition A. 11.b) through A. 11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A. 14., Public Disclosure
 - (8) Standard Term and Condition A. 15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A. 16., Fees
 - (10) Standard Term and Condition A. 17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.



- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Hamilton County Dept. of Environmental Services.



(2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Hamilton County Dept. of Environmental Services. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Hamilton County Dept. of Environmental Services every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Hamilton County Dept. of Environmental Services in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:



- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- d) The permittee shall submit progress reports to the Hamilton County Dept. of Environmental Services concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Hamilton County Dept. of Environmental Services.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Hamilton County Dept. of Environmental Services. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted



(i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., 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) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed through completion of the annual PER covering the last period of operation of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., 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). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum,



the permit requirements must be evaluated as part of the PER covering the last period the emissions unit operated.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a PER, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly (i.e., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days



after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Hamilton County Dept. of Environmental Services must be notified in writing of any transfer of this permit.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 14-06015
Facility ID: 1431340460
Effective Date: 10/21/2008

B. Facility-Wide Terms and Conditions



1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.

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

3. The permittee shall collect and record the following information each month for the emissions units identified in 2.:
 - a) The name and identification number of each coating employed.
 - b) The individual Hazardous Air Pollutant (HAP)* content for each HAP of each coating, in pounds of individual HAP per gallon of coating, as applied.
 - c) The total combined HAP content of each coating in pounds of combined HAPs per gallon of coating, as applied [sum of all individual HAP contents from (b)].
 - d) The number of gallons of each coating employed.
 - e) The name and identification of each cleanup material employed.
 - f) The individual HAP content for each HAP of each cleanup material, in pounds of individual HAP per gallon of cleanup material, as applied.
 - g) The total combined HAP content of each cleanup material, in pounds of combined HAPs per gallon of cleanup material, as applied [sum all the individual HAP contents from (f)].
 - h) The number of gallons of each cleanup material employed [the total number of gallons of each cleanup material employed less the number of gallons of each cleanup material collected for reuse and disposal].
 - i) The total individual HAP emissions for each HAP from all coatings and cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) times the emissions factor or overall control efficiency** (if applicable) for each coating plus the sum of (f) times (h) for each cleanup material plus individual HAP emissions from any de minimus, registration status and/or permit exempt emissions unit at the facility].



- j) The total combined HAP emissions from all coatings and cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor or overall control efficiency** (if applicable) for each coating plus the sum of (g) times (h) for each cleanup material plus combined HAP emissions from any de minimus, registration status and/or permit exempt emissions unit at the facility].
- k) The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.
- l) The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

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

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

- 4. The permittee shall submit deviation (excursion) reports which identify any exceedance of the rolling, 12-month HAP emission limitations outlined in 2.
- 5. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
- 6. Compliance with the emission limitations specified in 2 shall be determined in accordance with the following methods:

- a) Emission Limitation:

9.9 TPY for any individual HAP and 24.9 TPY for any combination of HAPs.

Applicable Compliance Method:

Compliance with the HAP emission limitations in 2 shall be demonstrated by the record keeping in 3.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
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C. Emissions Unit Terms and Conditions



1. K049, Litho 6

Operations, Property and/or Equipment Description:

UV Lithographic Printer with Coater - Litho 6

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) g)(2).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) Voluntary Restrictions to Avoid BAT and Non-Attainment New Source Review Voluntary Restrictions to Avoid 40 CFR Part 63, Subpart KKKK	Volatile organic compound (VOC) emissions shall not exceed 4.0 tons per year (TPY), as a rolling 12-month summation. See b)(2)a. and c)(1).
b.	OAC rule 3745-21-09(D)(2)(b)	See b)(2)b.

(2) Additional Terms and Conditions

a. Permit to install 14-06015 for this air contaminant source takes into account the following voluntary restrictions as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. Limiting the annual VOC emissions to 4.0 TPY, as a rolling 12-month summation.

b. The permittee shall not employ coatings in emissions unit K049 with a VOC content greater than 2.8 pounds per gallon of coating, as applied, excluding water and exempt solvents.

c) Operational Restrictions

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



pounds per gallon, excluding water and exempt solvents (see record keeping requirements in terms and conditions d)(1)). Since this is an existing emissions unit, the company has existing records to demonstrate compliance with this limitation.

d) Monitoring and/or Recordkeeping Requirements

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



e) Reporting Requirements

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

The permittee shall submit the reports by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively).

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

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

f) Testing Requirements

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

a. Emission Limitation:

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

Applicable Compliance Method:

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

b. Emission Limitation:

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



Applicable Compliance Method:

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

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

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

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

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

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

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

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

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

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

g) Miscellaneous Requirements

- (1) The terms and conditions of this permit to install shall supersede the terms and conditions of Permit to Install 14-04457 for UV Lithographic Printer with Coater - Litho 6 (K049) issued on November 12, 1997.
- (2) Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.



2. K052, Litho 7

Operations, Property and/or Equipment Description:

UV Lithographic Printer with UV Coater - Litho 7

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) g)(2).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) Voluntary Restrictions to Avoid BAT and Non-Attainment New Source Review Voluntary Restrictions to Avoid 40 CFR Part 63, Subpart KKKK	Volatile organic compound (VOC) emissions shall not exceed 4.0 tons per year (TPY), as a rolling 12-month summation. See b)(2)a. and c)(1).
b.	OAC rule 3745-21-09(D)(2)(b)	See b)(2)b.

(2) Additional Terms and Conditions

a. Permit to install 14-06015 for this air contaminant source takes into account the following voluntary restrictions as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. Limiting the annual VOC emissions to 4.0 TPY, as a rolling 12-month summation.

b. The permittee shall not employ coatings in emissions unit K052 with a VOC content greater than 2.8 pounds per gallon of coating, as applied, excluding water and exempt solvents.

c) Operational Restrictions

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



solvent in pounds per gallon, excluding water and exempt solvents (see record keeping requirements in terms and conditions d)(1)). Since this is an existing emissions unit, the company has existing records to demonstrate compliance with this limitation.

d) Monitoring and/or Recordkeeping Requirements

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



e) Reporting Requirements

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

The permittee shall submit the reports by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively).

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

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

f) Testing Requirements

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

a. Emission Limitation:

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

Applicable Compliance Method:

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

b. Emission Limitation:

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



Applicable Compliance Method:

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

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

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

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

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

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

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

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

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

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

g) Miscellaneous Requirements

- (1) The terms and conditions of this permit to install shall supersede the terms and conditions of Permit to Install 14-04554 for UV Lithographic Printer with UV Coater – Litho 7 (K052) issued on May 13, 1998.
- (2) Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic compound will be less than 1.0 ton. OAC chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials, or use of new materials, that would cause the emissions of any pollutant that has a listed TLV to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new permit to install.



3. K057, PC-8

Operations, Property and/or Equipment Description:

Four Color UV Printing and Coating Line - PC-8

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) g)(1).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) Voluntary Restrictions to Avoid BAT and Non-Attainment New Source Review Voluntary Restrictions to Avoid 40 CFR Part 63, Subpart KKKK	Volatile organic compound (VOC) emissions shall not exceed 4.7 tons per year (TPY), as a rolling 12-month summation. See b)(2)a. and c)(1).
b.	OAC rule 3745-21-09(D)(2)(b)	See b)(2)b.

(2) Additional Terms and Conditions

a. Permit to install 14-06015 for this air contaminant source takes into account the following voluntary restrictions as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. Limiting the annual VOC emissions to 4.7 TPY, as a rolling 12-month summation.

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

c) Operational Restrictions

(1) The maximum annual VOC input, as applied, of materials employed in this emissions unit shall not exceed 9.0 tons per year as a rolling 12-month summation. The VOC input shall be determined by multiplying the number of gallons of coating and cleanup solvent



employed per month by the VOC content of each coating and the cleanup solvent in pounds per gallon, excluding water and exempt solvents (see record keeping requirements in terms and conditions d)(1)).

To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the maximum annual VOC input levels from this emissions unit as specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative VOC Input (TPY)</u>
1	0.75
1 – 2	1.5
1 – 3	2.25
1 – 4	3.0
1 – 5	3.75
1 – 6	4.5
1 – 7	5.25
1 – 8	6.0
1 – 9	6.75
1 – 10	7.5
1 – 11	8.25
1 – 12	9.0

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for this emissions unit:
 - a. The name and identification number of each coating and cleanup material, as applied.
 - b. The VOC content of each coating and cleanup material in pounds of VOC per gallon, excluding water and exempt solvents, as applied.
 - c. The water and exempt solvent content of each coating, as applied, in percent by weight.
 - d. The amount of each coating employed, in gallons, excluding water and exempt solvents.
 - e. The coating-specific release factor, as provided in US EPA technical support documents and control technique guidelines for offset lithographic printing, for each coating employed.
 - f. The amount of each cleanup material employed, in gallons.
 - g. The weight percent solids and weight percent water of each waste cleanup material collected.
 - h. The amount of each waste cleanup material collected, in gallons of solvent less solids and water.



- i. The monthly VOC input, in tons, determined by multiplying the VOC content of each coating from b. by the gallon usage in d. plus the VOC content of each cleanup material from b. multiplied by the gallon usage from f. This value is then divided by 2000 pounds per ton. For the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative monthly VOC input for each calendar month.
- j. The monthly VOC emissions (the summation of the VOC emission calculations for each coating and cleanup material employed. See f)(1)b. for calculation methodology).
- k. The updated rolling, 12-month summation total, in tons, of VOC input (the total amount of VOC input for the current month recorded in line i. plus the total amount of VOC input for the previous eleven calendar months).
- l. The updated rolling, 12-month summation total, in tons, of VOC emissions (the total amount of VOC emissions for the current month recorded in line j. plus the total amount of VOC emissions for the previous eleven calendar months).

e) Reporting Requirements

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

The permittee shall submit the reports by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively).

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

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

f) Testing Requirements

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



a. Emission Limitation:

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

Applicable Compliance Method:

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

b. Emission Limitation:

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

Applicable Compliance Method:

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

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

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

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

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

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

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

$$\text{Total VOC emissions considering voluntary restrictions} = 2.6 + 2.1 = 4.7 \text{ TPY}$$

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

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



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 14-06015
Facility ID: 1431340460
Effective Date: 10/21/2008

g) Miscellaneous Requirements

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



4. K058, PC-9

Operations, Property and/or Equipment Description:

Three Color UV Press and One Conventional Ink Press with Conventional Coater and Integral Thermal Oxidizer – PC-9

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) g)(2).

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(D) Voluntary Restrictions to Avoid BAT and Non-Attainment New Source Review Voluntary Restrictions to Avoid 40 CFR Part 63, Subpart KKKK	Volatile organic compound (VOC) emissions shall not exceed 8.84 tons per year (TPY), as a rolling 12-month summation. See b)(2)a. and c)(1).
b.	OAC rule 3745-21-09(D)(2)(b)	The emissions limitations specified by this rule are less stringent than the emissions limitation and overall VOC emissions reduction requirements established pursuant to OAC rule 3745-31-05(D).

(2) Additional Terms and Conditions

a. Permit to install 14-06015 for this air contaminant source takes into account the following voluntary restrictions as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

i. Limiting the annual VOC emissions to 8.84 TPY, as a rolling 12-month summation.

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



vented to the thermal oxidizer. The integral thermal oxidizer is defined as inherent process equipment whose function is the proper and safe operation of the emissions unit.

c) Operational Restrictions

- (1) The maximum annual VOC input, as applied, of materials employed in this emissions unit shall not exceed 120 tons per year as a rolling 12-month summation. The VOC input shall be determined by multiplying the number of gallons of coating and cleanup solvent employed per month by the VOC content of each coating and the cleanup solvent in pounds per gallon, excluding water and exempt solvents (see record keeping requirements in terms and conditions d)(1)). To ensure enforceability during the first 12 calendar months of operation following the issuance of this permit, the permittee shall not exceed the maximum annual VOC input levels from this emissions unit as specified in the following table:

<u>Month(s)</u>	<u>Maximum Allowable Cumulative VOC Input (TPY)</u>
1	10.0
1 – 2	20.0
1 – 3	30.0
1 – 4	40.0
1 – 5	50.0
1 – 6	60.0
1 – 7	70.0
1 – 8	80.0
1 – 9	90.0
1 – 10	100.0
1 – 11	110.0
1 – 12	120.0

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following information each month for this emissions unit:
 - a. The name and identification number of each coating and cleanup material, as applied.
 - b. The VOC content of each coating and cleanup material in pounds of VOC per gallon, excluding water and exempt solvents, as applied.
 - c. The water and exempt solvent content of each coating, as applied, in percent by weight.
 - d. The amount of each coating employed, in gallons, excluding water and exempt solvents.
 - e. The coating-specific release factor, as provided in US EPA technical support documents and control technique guidelines for offset lithographic printing, for each coating employed.



- f. The amount of each cleanup material employed, in gallons.
 - g. The weight percent solids and weight percent water of each waste cleanup material collected.
 - h. The amount of each waste cleanup material collected, in gallons of solvent less solids and water.
 - i. The monthly VOC input, in tons, determined by multiplying the VOC content of each coating from b. by the gallon usage in d. plus the VOC content of each cleanup material from b. multiplied by the gallon usage from f. This value is then divided by 2000 pounds per ton. For the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative monthly VOC input for each calendar month.
 - j. The monthly VOC emissions (the summation of the VOC emission calculations for each coating and cleanup material employed. See f)(1) for calculation methodology).
 - k. The updated rolling, 12-month summation total, in tons, of VOC input (the total amount of VOC input for the current month recorded in line i. plus the total amount of VOC input for the previous eleven calendar months).
 - l. The updated rolling, 12-month summation total, in tons, of VOC emissions (the total amount of VOC emissions for the current month recorded in line j. plus the total amount of VOC emissions for the previous eleven calendar months).
- (2) The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the temperature, in degrees Fahrenheit of the thermal oxidizer during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals(s). The permittee shall record the temperature on an hourly basis.

Whenever the monitored value for the temperature deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personal who conducted the investigation, and 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 thermal oxidizer within the acceptable value specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the temperature immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to



comply the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable average combustion temperature within the thermal oxidizer, for any 3-hour block of time when the emissions unit(s) controlled by the thermal oxidizer is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent emissions test that demonstrated the emissions unit(s) was/were in compliance.

The acceptable value for the temperature of the thermal oxidizer shall be based upon the manufacturer's specifications until such time as any required emission testing is conducted.

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

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

The duct static pressure shall be maintained under negative pressure, at a minimum duct static pressure that is not less than 0.013 mm Hg (0.007 inches of H₂O gage) as established in Method 204 of Appendix M to 40 CFR Part 51, whenever coating is in progress, except when product quality checks and maintenance operations are performed.

Whenever the monitored value for the duct static pressure deviates from the value specified above, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the capture and control equipment within the acceptable static pressure range or value, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the



deviation ended, the total period of time (in minutes) during which there was a deviation, the static pressure immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

e) Reporting Requirements

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

The permittee shall submit the reports by January 31, April 30, July 31 and October 31 of each year and shall cover the previous calendar quarters (October through December, January through March, April through June and July through September, respectively).

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

- (2) The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the thermal incinerator does not comply with the temperature limitation specified in d)(2).
- (3) The permittee shall submit deviation (excursion) reports that identify all deviations of the duct static pressure value specified in d)(3).

f) Testing Requirements

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

Emission Limitation:

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

Applicable Compliance Method:

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

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

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



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

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

= 5.28TPY

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

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

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

= 3.56 TPY

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

- (2) Compliance with the VOC input limitation in c)(1) shall be demonstrated by the record keeping required in d)(1).
- (3) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 180 days after the initial startup of the emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the requirements specified in term and condition b)(2)a. for overall control efficiency of not less than 95% and a destruction efficiency of not less than 95% by weight, of all VOC emissions entering the control device.
 - c. The capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with the USEPA's "Guidelines for Determining Capture Efficiency", dated January 9, 1995. (The Ohio EPA will consider the request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of the alternative if such approval does not contravene any other applicable requirement.)
 - d. The control efficiency (i.e. the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in 3745-21-10 or an alternative test protocol approved by the Ohio EPA. The test methods and procedures selected



shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

- e. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Hamilton County Department of Environmental Services.
- f. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in Hamilton County Department of Environmental Services' refusal to accept the results of the emission test(s).
- g. Personnel from the Hamilton County Department of Environmental Services shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- h. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

g) **Miscellaneous Requirements**

- (1) The enclosures serving this emissions unit shall be maintained in such a manner as to meet the criteria established for a permanent total enclosure in 40 CFR Part 51, Appendix M, Reference Method 204 when coating is in progress, except when product quality assurance checks and maintenance operations are performed. The permittee shall also maintain an interlock device on the enclosure above the coating applicator rolls such that the enclosure cannot be compressed when the emissions unit is in operation.
- (2) The permit to install for this emissions unit (K058) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit application. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN 3.0, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:



- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists' (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):
$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$
- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):
 - Toxic Contaminant: Xylene
 - TLV (mg/m³): 434,190
 - Maximum Hourly Emission Rate (lbs/hr): 0.54
 - Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 5.901
 - MAGLC (ug/m³): 10337.86

The permittee, has demonstrated that emissions of xylene, from emissions unit(s) K058, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied



without evaluating each component toxic air contaminant in accordance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F).

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

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

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

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

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



initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and

- d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.

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

The permittee shall submit annual reports to the appropriate Ohio EPA District Office or local air agency, documenting any changes made to a parameter or value used in the dispersion model, that was used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. If no changes to the emissions unit(s), emissions, or the exhaust stack have been made, then the report shall include a statement to this effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.