

**NEW SOURCE CONSTRUCTION PERMIT
and MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR MANAGEMENT**

**Metropolitan Printing Services
720 South Morton Street
Bloomington, Indiana 47403**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-5.1 if new source, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 105-11576-00036	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a commercial printing plant.

Authorized Individual: Tad Wilson
Source Address: 720 South Morton Street, Bloomington, Indiana 47403
Mailing Address: 720 South Morton Street, Bloomington, Indiana 47403
Phone Number: (812) 332-7279
SIC Code: 2752
County Location: Monroe
County Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit
Minor Source, under PSD Rules

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved the construction and operation of the following equipment used in the production of commercial prints like; brochures, flyers, and annual reports:

- (a) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Heidelberg Press, P1 with a maximum line speed of 443.33 feet per minute, and maximum printing width of 40 inches;
- (b) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Komori Press #1, P2 with a maximum line speed of 358.33 feet per minute, and maximum printing width of 28 inches;
- (c) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Komori Press #2, P3 with a maximum line speed of 583.33 feet per minute, and maximum printing width of 40 inches;
- (d) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Miehle Press, P4 with a maximum line speed of 260 feet per minute, and maximum printing width of 36 inches;
- (e) One (1) existing non-heatset lithographic sheet-fed printing press, identified as GTO Press, P5 with a maximum line speed of 124.58 feet per minute, and maximum printing width of 18 inches; and
- (f) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Multilith Press, P6, with a maximum line speed of 233.75 feet per minute, and maximum printing width of 11 inches.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is not required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is not a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is not a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Modification to Permit [326 IAC 2]

Notwithstanding Condition B.7, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emissions units were constructed as proposed in the application. The emissions units covered in the New Source Construction Permit may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM.
- (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (c) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
- (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

- (e) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

- (a) The total source potential to emit of volatile organic compounds (VOC) is less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.

C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each emissions unit:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM.

C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

- (a) The Permittee must comply with the requirements of [326 IAC 2-6.1-6] whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) The Permittee shall notify the OAM within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;
- (c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.
 - (1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM, nor an authorized representative, may disclose the information unless and until IDEM, OAM, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]
 - (2) The Permittee, and IDEM, OAM, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch within thirty (30) days of the change.

- (b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAM, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this permit.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
- (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
- (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.7 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.8 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

Testing Requirements

C.9 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Compliance Monitoring Requirements

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date. The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.11 Maintenance of Monitoring Equipment [IC 13-14-1-13]

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.12 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.13 Actions Related to Noncompliance Demonstrated by a Stack Test

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.14 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

- (a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.
- (b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.
- (c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

- (d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.15 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.16 General Record Keeping Requirements [326 IAC 2-6.1-2]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and

- (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.17 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Semi-annual Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.
- (h) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 EMISSION UNITS OPERATION CONDITIONS

- (a) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Heidelberg Press, P1 with a maximum line speed of 443.33 feet per minute, and maximum printing width of 40 inches;
- (b) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Komori Press #1, P2 with a maximum line speed of 358.33 feet per minute, and maximum printing width of 28 inches;
- (c) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Komori Press #2, P3 with a maximum line speed of 583.33 feet per minute, and maximum printing width of 40 inches;
- (d) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Miehle Press, P4 with a maximum line speed of 260 feet per minute, and maximum printing width of 36 inches;
- (e) One (1) existing non-heatset lithographic sheet-fed printing press, identified as GTO Press, P5 with a maximum line speed of 124.58 feet per minute, and maximum printing width of 18 inches; and
- (f) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Multilith Press, P6, with a maximum line speed of 233.75 feet per minute, and maximum printing width of 11 inches.

Emission Limitations and Standards

D.1.1 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

Any change or modification from each non-heatset lithographic press that may increase the VOC emissions to 25 tons per year or greater will require prior approval and be subject to the requirements of 326 IAC 8-1-6 (General Reduction Requirements), before such change may occur.

D.1.2 Hazardous Air Pollutants (HAPs)

Any change or modification from the equipment covered under this permit that may increase the single HAP, or combined HAPs emissions to 10 tons per year or greater, or 25 tons per year or greater respectively, will require prior approval before such change may occur.

Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.3 Volatile Organic Compounds Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test these emissions units by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions units are in compliance with the VOC and HAP usage limitation contained in Conditions D.1.1 and D.1.2. If testing is required by IDEM, the tests shall be determined pursuant to 326 IAC 8-1-4(a)(3)(A) and 326 IAC 8-1-2(a)(7) using formulation data supplied by the ink and wash-up solvent manufacturer. IDEM, OAM reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.4 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.2 the Permittee shall maintain records of the amount and VOC, and HAP content of all the raw materials used, that contribute to the overall VOC and HAPs emissions from the printing operation. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Records maintained shall be taken monthly and shall be complete and sufficient to quantify the VOC and HAP emissions established in Condition D.1.1 and D.1.2.

- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a New Source Construction and Minor Source Operating Permit

Source Background and Description

Source Name: Metropolitan Printing Services
Source Location: 720 South Morton Street, Bloomington, Indiana 47403
County: Monroe
SIC Code: 2752
Operation Permit No.: MSOP 105-11576-00036
Permit Reviewer: Aida De Guzman

The Office of Air Management (OAM) has reviewed an application from Metropolitan Printing Services relating to the construction and operation of the following equipment used in the production of commercial prints like; brochures, flyers, and annual reports:

- (a) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Heidelberg Press, P1 with a maximum line speed of 443.33 feet per minute, and maximum printing width of 40 inches. This press was constructed on November, 1993.
- (b) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Komori Press #1, P2 with a maximum line speed of 358.33 feet per minute, and maximum printing width of 28 inches. This press was constructed on September, 1994.
- (c) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Komori Press #2, P3 with a maximum line speed of 583 feet per minute, and maximum printing width of 40 inches. This press was constructed in November, 1999.
- (d) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Miehle Press, P4 with a maximum line speed of 260 feet per minute, and maximum printing width of 36 inches. This press was constructed in December, 1979.
- (e) One (1) existing non-heatset lithographic sheet-fed printing press, identified as GTO Press, P5 with a maximum line speed of 124.58 feet per minute, and maximum printing width of 18 inches. This press was constructed in July, 1989.
- (f) One (1) existing non-heatset lithographic sheet-fed printing press, identified as Multilith Press, P6, with a maximum line speed of 233.75 feet per minute, and maximum printing width of 11 inches. This press was constructed in August, 1988.

Enforcement Issue

- (a) IDEM is aware that all the six (6) printing presses in the above project description of page 1 of this TSD have been constructed and operated prior to receipt of the proper permit. .
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 18, 1999 with additional information received on December 14, 1999 and December 21, 1999.

Emission Calculations

- (a) Non-heatset Lithographic Presses Emissions: See Pages 1 through 12 TSD Appendix A for detailed HAPs and VOC emissions calculation.

PM=PM10 Emissions (tons/year)				
Press ID	Compound	Maximum Coverage (lb/MMin ²)	Throughput (MMin ² /year)	PM10 Emissions (tons/year)
Heidelberg Press, P1	Anti-Set-Off Powder	0.0089	111,847	0.50
Komori #1, P2	Anti-Set-Off Powder	0.0089	63,282	0.28
Komori #2, P3	Anti-Set-Off Powder	0.0089	147,168	0.65
Miehle Press, P4	Anti-Set-Off Powder	0.0089	59,035	0.26
GTO Press, P5	Anti-Set-Off Powder	0.0089	14,143.9	0.06
Multilith Press, P6	Anti-Set-Off Powder	0.0089	16,217	0.072
TOTAL				1.82

Methodology:

PM= PM10 Emissions = Maximum Coverage, lb/MMin² * Throughput, MMin²/year * ton/2000 lb

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	1.82
PM-10	1.82
SO ₂	0.0
VOC	39.75
CO	0.0
NO _x	0.0

HAP's	Potential To Emit (tons/year)
Cobalt Compounds	0.05
Ethylene Glycol	0.36
Glycol Ethers	8.09
Manganese	0.07
Methanol	1.25
Toluene	1.7
Xylene	8.85
Total Single Worst HAP	8.85
Total Combined HAPs	20.37

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of Volatile Organic Compounds (VOC) are greater than 25 tons per year, but less than 100 tons per year. Therefore, the source is **not** subject to the provisions of 326 IAC 2-7.

and

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is less than twenty-five (25) tons per year. Therefore, the source is **not** subject to the provisions of 326 IAC 2-7.

Justification for the Level of Approval

The source, which is existing has not been issued an air approval. Therefore, it will be treated as a new source. Since its volatile organic compound (VOC) emission of 39.75 tons per year is greater than 25 tons per year, the source will be reviewed, and a permit will be issued pursuant to 326 IAC 2-5.1-3 (New Source Construction Permit), and 326 IAC 2-6.1 (Minor Source Operating Permit).

Actual Emissions

No previous emission data has been received from the source.

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

Process/facility	Limited Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Six (6) Non-Heatset Lithographic Presses	1.82	1.82	0.0	39.75	0.0	0.0	20.37
Total Emissions	1.82	1.82	0.0	39.75	0.0	0.0	20.37

County Attainment Status

The source is located in Monroe County.

Pollutant	Status (attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	Not Determined

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Monroe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Monroe County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Emissions (ton/yr)
PM	1.82
PM10	1.82
SO ₂	0.0
VOC	39.75
CO	0.0
NO _x	0.0
Single HAP	8.85
Combination HAPs	20.37

- (a) This new source is **not** a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is **not** subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) New Source Performance Standards (326 IAC 12) and 40 CFR Part 63:

40 CFR, § 60.430, Subpart QQ - Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing: This standard applies to each publication rotogravure printing press, that commences construction, modification, or reconstruction after October 28, 1980.

The six (6) non-heatset lithographic sheet-fed presses, are not subject to the NSPS, because they are not rotogravure printing presses.

- (b) National Emission Standards for Hazardous Air Pollutants (NESHAPs)

40 CFR, § 63.820, Subpart KK - National Emission Standard for the Printing and Publishing Industry: This standard applies to major source of hazardous air pollutants (HAPs), at which publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses are operated.

The six (6) non-heatset lithographic sheet-fed presses in this application are not subject to the NESHAP, because they are not publication, product and packaging rotogravure printing presses, nor they are wide-web flexographic printing presses, and they are not major for single HAP and combined HAPs.

State Rule Applicability - Entire Source

- (a) 326 IAC 2-6 (Emission Reporting)

This source is **not** subject to 326 IAC 2-6 (Emission Reporting), because the VOC potential to emit is less than 100 tons per year, and it is not a source located in one of the counties listed in rule 326 IAC 2-6-1(a), which emits 10 tons of VOC per year.

- (b) 326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

- (b) 326 IAC 8-5-5 (Miscellaneous Operations: Graphic Arts Operations)
This rule applies to packaging rotogravure; publication rotogravure; and flexographic printing sources.

The six (6) non-heatset lithographic sheet-fed presses in this application are not subject to this rule, because they are not publication, product and packaging rotogravure printing presses, nor they are flexographic printing presses.

- (c) 326 IAC 8-1-6 (General Reduction Requirements)
326 IAC 8-1-6 applies to new facilities as of January 1, 1980, that have potential VOC emissions of 25 tons per year or greater if no specific rule in article 8 is applicable.

Each press does produce a final printed product. The six (6) presses are not subject to 326 IAC 8-1-6, because each printing press potential VOC emission is less than 25 tons per year.

- (d) 326 IAC 8-6-1 (Organic Solvent Emissions Limitation)
This rule applies to sources existing as of January 1, 1980, located in Lake and Marion Counties with potential VOC emissions of 100 tons per year or greater, not limited by other rules in article 8.

This rule also applies to sources located anywhere in the state commencing operation after October 7, 1974, and prior to January 1, 1980 with potential VOC emissions of 100 tons per year or greater.

This rule is not applicable to the source, because its VOC potential emission of 39.75 tons per year is well below 100 tons per year.

- (e) 326 IAC 6-3-2 (Process Operations)
The set-off powder application process weight rate from each press is insignificant (10×10^{-5}). Therefore, 326 IAC 6-3-2 will not apply.

- (f) 326 IAC 2-4.1-1 (New Source Toxics Control)
326 IAC 2-4.1-1, is not applicable to the source, because it is not major for single HAP nor it is major for combined HAPs.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) See pages 7 through 12 of the TSD Appendix A spreadsheets for detailed air toxic calculations.

Conclusion

The new non-heatset lithographic sheet-fed press, including the existing non-heatset lithographic sheet-fed presses which produce commercial printing shall be subject to the conditions of the attached proposed **New Source Construction and Minor Source Operating Permit 105-11576-00036.**

**Appendix A: Emissions Calculations
VOC From Printing Press Operations**

Company Name: Metropolitan Printing Services
Address City IN Zip: 720 S. Morton St., Bloomington, IN 47403
CP: 105-11576
Plt ID: 105-00036
Reviewer: Aida De Guzman
Date: Dec. 6, 1999

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FE	MAXIMUM PRINT WIDTH (I	MMin^2/YEAR
Heidelberg Press, P1	443.33	40	111847

INK VOCS					
Ink Name Press Id	Maxium Coverage '(lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
Inks (Braden Book Black)	0.45	20%	5.00%	111847	0.25
Varnish (Braden Tuff Skuff)	0.0129	20%	100.00%	111847	0.14
Fountain Solution	0.0439	21%	100.00%	111847	0.51
Blanket Wash (Varn V-253)	0.0383	100%	100.00%	111847	2.14
Cleaning Solvents (Superior B-	0.1282	100%	100.00%	111847	7.17
Total VOC Emissions					10.22 Ton/yr

*VOC (Tons/Year) = Maximum Coverage pounds per MMin^2 * Weight % volatiles (weight % of water & organics - weight % of water = weight % organics) * Flash off * Throughput * 1 Ton per 2000 pounds

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin^2 per Year

VOC = Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

**Appendix A: Emissions Calculations
VOC From Printing Press Operations**

Company Name: Metropolitan Printing Services
Address City IN Zip: 720 S. Morton St., Bloomington, IN 47403
CP: 105-11576
Plt ID: 105-00036
Reviewer: Aida De Guzman
Date: Dec. 6, 1999

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET PER MINUTE)	MAXIMUM PRINT WIDTH (INCHES)	MMin ² /YEAR
Komori Press #1, P2	358.33	28	63282

INK VOCS					
Ink Name Press Id	Maxium Coverage '(lbs/MMin ²)	Weight % Volatiles*	Flash Off %	Throughput (MMin ² /Year)	Emissions (TONS/YEAR)
Inks (Braden Book Black)	0.45	20%	5.00%	63282	0.14
Varnish (Braden Tuff Skuff)	0.0129	20%	100.00%	63282	0.08
Fountain Solution	0.0451	21%	100.00%	63282	0.30
Blanket Wash (Varn V-253)	0.0383	100%	100.00%	63282	1.21
Cleaning Solvents (Superior B-1)	0.1282	100%	100.00%	63282	4.06

Total VOC Emissions	5.79 Ton/yr
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*VOC (Tons/Year) = Maximum Coverage pounds per MMin² * Weight % volatiles (weight % of water & organics - weight % of water = weight % organics) * Flash off * Throughput * 1 Ton per 2000 pounds

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin² per Year

VOC = Maximum Coverage pounds per MMin² * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

**Appendix A: Emissions Calculations
VOC From Printing Press Operations**

Company Name: Metropolitan Printing Services
Address City IN Zip: 720 S. Morton St., Bloomington, IN 47403
CP: 105-11576
Plt ID: 105-00036
Reviewer: Aida De Guzman
Date: Dec. 6, 1999

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET PER MINUTE)	MAXIMUM PRINT WIDTH (INCHES)	MMin ² /YEAR
Komori Press #2, P3	583.33	40	147167

INK VOCS					
Ink Name Press Id	Maxium Coverage '(lbs/MMin ²)	Weight % Volatiles*	Flash Off %	Throughput (MMin ² /Year)	Emissions (TONS/YEAR)
Inks (Braden Book Black)	0.45	20%	5.00%	147167	0.33
Varnish (Braden Tuff Skuff)	0.0129	20%	100.00%	147167	0.19
Fountain Solution	0.0451	21%	100.00%	147167	0.69
Blanket Wash (Varn V-253)	0.0383	100%	100.00%	147167	2.82
Cleaning Solvents (Superior B)	0.1282	100%	100.00%	147167	9.43

Total VOC Emissions	13.46 Ton/yr
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*VOC (Tons/Year) = Maximum Coverage pounds per MMin² * Weight % volatiles (weight % of water & organics - weight % of water = weight % organics) * Flash off * Throughput * 1 Ton per 2000 pounds

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin² per Year

VOC = Maximum Coverage pounds per MMin² * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

**Appendix A: Emissions Calculations
VOC From Printing Press Operations**

Company Name: Metropolitan Printing Services
Address City IN Zip: 720 S. Morton St., Bloomington, IN 47403
CP: 105-11576
Plt ID: 105-00036
Reviewer: Aida De Guzman
Date: Dec. 6, 1999

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET PER MINUTE)	MAXIMUM PRINT WIDTH (INCHES)	MMin ² /YEAR
Miehle Press, P4	260	36	59035

INK VOCS					
Ink Name Press Id	Maxium Coverage '(lbs/MMin ²)	Weight % Volatiles*	Flash Off %	Throughput (MMin ² /Year)	Emissions (TONS/YEAR)
Inks (Braden Book Black)	0.45	20%	5.00%	59035	0.13
Varnish (Braden Tuff Skuff)	0.0129	20%	100.00%	59035	0.08
Fountain Solution	0.0439	21%	100.00%	59035	0.27
Blanket Wash (Varn V-253)	0.0944	100%	100.00%	59035	2.79
Cleaning Solvents (Superior B-1)	0.1282	100%	100.00%	59035	3.78

Total VOC Emissions	7.05 Ton/yr
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*VOC (Tons/Year) = Maximum Coverage pounds per MMin² * Weight % volatiles (weight % of water & organics - weight % of water = weight % organics) * Flash off * Throughput * 1 Ton per 2000 pounds

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin² per Year

VOC = Maximum Coverage pounds per MMin² * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

**Appendix A: Emissions Calculations
VOC From Printing Press Operations**

Company Name: Metropolitan Printing Services
Address City IN Zip: 720 S. Morton St., Bloomington, IN 47403
CP: 105-11576
Plt ID: 105-00036
Reviewer: Aida De Guzman
Date: Dec. 6, 1999

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FE	MAXIMUM PRINT WIDTH (I	MMin^2/YEAR
GTO Press, P5	124.58	18	14144

INK VOCS					
Ink Name Press Id	Maxium Coverage '(lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
Inks (Braden Book Black)	0.45	20%	5.00%	14144	0.03
Varnish (Braden Tuff Skuff)	0.0129	20%	100.00%	14144	0.02
Fountain Solution	0.0439	21%	100.00%	14144	0.06
Blanket Wash (Varn V-253)	0.0383	100%	100.00%	14144	0.27
Cleaning Solvents (Superior B-	0.1282	100%	100.00%	14144	0.91

Total VOC Emissions	1.29 Ton/yr
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*VOC (Tons/Year) = Maximum Coverage pounds per MMin^2 * Weight % volatiles (weight % of water & organics - weight % of water = weight % organics) * Flash off * Throughput * 1 Ton per 2000 pounds

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin^2 per Year

VOC = Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

**Appendix A: Emissions Calculations
VOC From Printing Press Operations**

Company Name: Metropolitan Printing Services
Address City IN Zip: 720 S. Morton St., Bloomington, IN 47403
CP: 105-11576
Plt ID: 105-00036
Reviewer: Aida De Guzman
Date: Dec. 6, 1999

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET PER MINUTE)	MAXIMUM PRINT WIDTH (INCHES)	MMin ² /YEAR
Multilith Press, P6	233.75	11	16217

INK VOCS					
Ink Name Press Id	Maxium Coverage '(lbs/MMin ²)	Weight % Volatiles*	Flash Off %	Throughput (MMin ² /Year)	Emissions (TONS/YEAR)
Inks (Braden Book Black)	0.45	20%	5.00%	16217	0.04
Varnish (Braden Tuff Skuff)	0.0129	20%	100.00%	16217	0.02
Fountain Solution	0.0439	21%	100.00%	16217	0.07
Blanket Wash (Varn V-253)	0.0944	100%	100.00%	16217	0.77
Cleaning Solvents (Superior B-1)	0.1282	100%	100.00%	16217	1.04

Total VOC Emissions	1.94 Ton/yr
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*VOC (Tons/Year) = Maximum Coverage pounds per MMin² * Weight % volatiles (weight % of water & organics - weight % of water = weight % organics) * Flash off * Throughput * 1 Ton per 2000 pounds

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin² per Year

VOC = Maximum Coverage pounds per MMin² * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

Appendix A: Emissions Calculations

VOC From Printing Press Operations

Company Name: Metropolitan Printing Services
Address City IN Zip: 720 S. Morton St., Bloomington, IN 47403
CP: 105-11576
Plt ID: 105-00036
Reviewer: Aida De Guzman
Date: Dec. 6, 1999

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET)	MAXIMUM PRINT WIDTH (IN)	MMin^2/YEAR
Heidelberg Press, P1	443.33	40	111847

INK VOCS						
Ink Name	HAPs	Maximum Coverage (lbs/MMin^2)	Weight % HAPs	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
O/S Spec Pantone Ink	Cobalt Compounds	0.45	1%	5.00%	111847	0.01
	Manganese Compounds	0.45	2%	5.00%	111847	0.02
Varnish V-253 Wash	Xylene	0.0383	0%	100.00%	111847	0.00
Allied Fountain Solution	Glycol Ethers	0.0439	15%	100.00%	111847	0.37
Allied Meter-X	Xylene	0.1282	30%	100.00%	111847	2.15
Allied Dynakleen Cleaning Solvents (Superior E)	Xylene	0.1282	4%	100.00%	111847	0.25
	Glycol Ethers	0.1282	25%	100.00%	111847	1.79

Total HAPs Emission	4.60 Ton/yr
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HAP Emissions = maximum coverage, #/MMin² * Wt % HAP * Flash off * throughput, MMin²/yr * ton/2000 lb

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin² per Year

VOC = Maximum Coverage pounds per MMin² * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

Appendix A: Emissions Calculations

VOC From Printing Press Operations

Company Name: Metropolitan Printing Services
Address City IN Zip: 720 S. Morton St., Bloomington, IN 47403
CP: 105-11576
Plt ID: 105-00036
Reviewer: Aida De Guzman
Date: Dec. 6, 1999

THROUGHPUT				
Press I.D.		MAXIMUM LINE SPEED (FEET)	MAXIMUM PRINT WIDTH (IN)	MMin ² /YEAR
Komori Press #1, P2		358.33	28	63282

INK VOCS						
Ink Name	HAPs	Maxium Coverage '(lbs/MMin ²)	Weight % HAPs	Flash Off %	Throughput (MMin ² /Year)	Emissions (TONS/YEAR)
O/S Spec Pantone Ink	Cobalt Compounds	0.45	1%	5.00%	63282	0.01
	Manganese Compd	0.45	2%	5.00%	63282	0.01
2351 Fountain Solution	Ethylene Glycol	0.0451	8%	100.00%	63282	0.11
	Glycol Ethers	0.0451	18%	100.00%	63282	0.25
Allied Meter-x	Xylene	0.1282	30%	100.00%	63282	1.22
Allied Dynakleen Damper Clean	Xylene	0.1282	4%	100.00%	63282	0.14
	Glycol Ethers	0.1282	25%	100.00%	63282	1.01

Total HAPs Emission	2.75 Ton/yr
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HAP Emissions = maximum coverage, #/MMin² * Wt % HAP * Flash off * throughput, MMin²/yr * ton/2000 lb

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin² per Year

VOC = Maximum Coverage pounds per MMin² * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

**Appendix A: Emissions Calculations
VOC From Printing Press Operations**

Company Name: Metropolitan Printing Services
Address City IN Zip: 720 S. Morton St., Bloomington, IN 47403
CP: 105-11576
Plt ID: 105-00036
Reviewer: Aida De Guzman
Date: Dec. 6, 1999

THROUGHPUT				
Press I.D.		MAXIMUM LINE SPEED (FE	MAXIMUM PRINT WIDTH (I	MMin^2/YEAR
Komori Press #2, P3		583.33	40	147167

INK VOCS						
Ink Name Press Id	HAPs	Maxium Coverage '(lbs/MMin^2)	Weight % HAPs*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
O/S Spec Pantone Ink	Cobalt Compound	0.45	1%	5.00%	147167	0.02
	Manganese Compound	0.45	2%	5.00%	147167	0.03
2351 Fountain Solution	Ethylene Glycol	0.0451	8%	100.00%	147167	0.25
	Glycol Ethers	0.0451	18%	100.00%	147167	0.58
Allied Meter-x	Xylene	0.1282	30%	100.00%	147167	2.83
Allied Dynakleen Dampener Clean	Xylene	0.1282	4%	100.00%	147167	0.33
	Glycol Ethers	0.1282	25%	100.00%	147167	2.36

Total HAPs Emission	6.40 Ton/yr
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HAP Emissions = maximum coverage, #/MMin2 * Wt % HAP *Flash off * throughput, MMin2/yr * ton/2000 lb

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin^2 per Year

VOC = Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

Appendix A: Emissions Calculations

VOC From Printing Press Operations

Company Name: Metropolitan Printing Services
Address City IN Zip: 720 S. Morton St., Bloomington, IN 47403
CP: 105-11576
Plt ID: 105-00036
Reviewer: Aida De Guzman
Date: Dec. 6, 1999

THROUGHPUT				
Press I.D.		MAXIMUM LINE SPEED (FE	MAXIMUM PRINT WIDTH (I	MMin^2/YEAR
Miehle Press, P4		260	36	59035

INK VOCS						
Ink Name	HAPs	Maxium Coverage	Weight % HAPs	Flash Off %	Throughput	Emissions
Press Id		'(lbs/MMin^2)			(MMin^2/Year)	(TONS/YEAR)
O/S Spec Pantone Mix	Cobalt Compounds	0.45	1%	5.00%	59035	0.01
	Manganese Compo	0.45	2%	5.00%	59035	0.01
Allied Fountain Solutio	Glycol Ethers	0.0439	15%	100.00%	59035	0.19
B-4599 Blanket Wash	Toluene	0.0944	40%	100.00%	59035	1.10
	Methanol	0.0944	30%	100.00%	59035	0.82
Allied Meter-x	Xylene	0.1282	30%	100.00%	59035	1.14
Allied Dynakleen	Xylene	0.1282	4%	100.00%	59035	0.13
Dampener Clean	Glycol Ethers	0.1282	25%	100.00%	59035	0.95

Total HAPs Emission	4.35 Ton/yr
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HAP Emissions = maximum coverage, #/MMin2 * Wt % HAP *Flash off * throughput, MMin2/yr * ton/2000 lb

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin^2 per Year
 VOC = Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year
 NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.
 (Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

Appendix A: Emissions Calculations

VOC From Printing Press Operations

Company Name: Metropolitan Printing Services
Address City IN Zip: 720 S. Morton St., Bloomington, IN 47403
CP: 105-11576
Plt ID: 105-00036
Reviewer: Aida De Guzman
Date: Dec. 6, 1999

THROUGHPUT			
Press I.D.		MAXIMUM LINE SPEED (FEET)	MAXIMUM PRINT WIDTH (INCHES)
GTO Press, P5		124.58	18

INK VOCS						
Ink Name	HAPs	Maxium Coverage (lbs/MMin ²)	Weight % HAPs	Flash Off %	Throughput (MMin ² /Year)	Emissions (TONS/YEAR)
O/S Spec Pantone Ink	Cobalt Compound	0.45	1%	5.00%	14144	0.00
	Manganese Compound	0.45	2%	5.00%	14144	0.00
Allied Fountain Solution	Glycol Ethers	0.0439	15%	100.00%	14144	0.05
B-4599 Blanket Wash	Toluene	0.0944	40%	100.00%	14144	0.26
	Methanol	0.0944	30%	100.00%	14144	0.20
Allied Meter-x	Xylene	0.1282	30%	100.00%	14144	0.27
Allied Dynakleen	Xylene	0.1282	4%	100.00%	14144	0.03
Dampener Clean	Glycol Ethers	0.1282	25%	100.00%	14144	0.23

Total HAPs Emission	1.04 Ton/yr
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HAP Emissions = maximum coverage, #/MMin² * Wt % HAP * Flash off * throughput, MMin²/yr * ton/2000 lb

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin² per Year

VOC = Maximum Coverage pounds per MMin² * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

Appendix A: Emissions Calculations

VOC From Printing Press Operations

Company Name: Metropolitan Printing Services
Address City IN Zip: 720 S. Morton St., Bloomington, IN 47403
CP: 105-11576
Plt ID: 105-00036
Reviewer: Aida De Guzman
Date: Dec. 6, 1999

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET PER MINUTE)	MAXIMUM PRINT WIDTH (INCHES)	MMin ² /YEAR
Multilith Press, P6	233.75	11	16217

INK VOCS						
Ink Name	HAPs	Maxium Coverage (lbs/MMin ²)	Weight % HAPs	Flash Off %	Throughput (MMin ² /Year)	Emissions (TONS/YEAR)
O/S Spec Pantone Ink	Cobalt Compound	0.45	1%	5.00%	16217	0.00
	Manganese Compound	0.45	2%	5.00%	16217	0.00
Allied Fountain Solution	Glycol Ethers	0.0439	15%	100.00%	16217	0.05
B-4599 Blanket Wash	Toluene	0.0944	40%	100.00%	16217	0.30
	Methanol	0.0944	30%	100.00%	16217	0.23
Allied Meter-x	Xylene	0.1282	30%	100.00%	16217	0.31
Allied Dynakleen	Xylene	0.1282	4%	100.00%	16217	0.04
Dampener Clean	Glycol Ethers	0.1282	25%	100.00%	16217	0.26

Total HAPs Emission	1.19 Ton/yr
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*VOC (Tons/Year) = Maximum Coverage pounds per MMin HAP Emissions = maximum coverage, #/MMin² * Wt % HAP *Flash off * throughput, MMin²/yr * ton/2000 lb

METHODOLOGY

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin² per Year

VOC = Maximum Coverage pounds per MMin² * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))