INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
MC 61-53
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant

DATE: February 8, 2008

RE: RR Donnelley Seymour Plant / 071-22986-00024

FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER.dot12/03/07

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Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Federally Enforceable State Operating Permit Renewal
OFFICE OF AIR QUALITY

RR Donnelley Seymour Plant
709 A Avenue East
Seymour, Indiana 47274

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

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. 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 conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Operation Permit No.: F071-22986-00024	
Issued by/Original Signed By: Chrystal Wagner, Section Chief Permits Branch Office of Air Quality	Issuance Date: February 8, 2008 Expiration Date: February 8, 2018

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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 Quality (OAQ). 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 2-8-3(b)]

The Permittee owns and operates a stationary Lithographic Printing operation.

Source Address:	709 A Avenue East, Seymour, Indiana 47274
Mailing Address:	709 A Avenue East, Seymour, Indiana 47274
General Source Phone Number:	(812) 523-1800
SIC Code:	2752
County Location:	Jackson
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

Eight (8) heatset web offset printing presses, controlled by a natural gas fired thermal oxidizer system (ID Nos. TAB-1, TAB-2 and/or TAB-3), with maximum heat input capacities of 0.7, 1.98 and 9.0 million British thermal units (MMBtu) per hour, respectively, exhausting through stack ID No. TAB-1, TAB-2, and TAB-3, respectively, including:

(a) one (1) heatset web offset printing press (ID No. AIG-002) installed in April 1993, with a maximum line speed of 1,080 feet per minute and a maximum print width of 25 inches, with associated in-line equipment;

(b) one (1) heatset web offset printing press (ID No. AIG-004) installed in March 1994 with two (2) lines, each with a maximum line speed of 1,400 feet per minute and each with a maximum print width of 36 inches, with associated in-line equipment;

(c) one (1) heatset web offset printing press (ID No. AIG-005) installed in November 1994 with two (2) lines, each with a maximum line speed of 1,200 feet per minute and each with a maximum print width of 50 inches, with associated in-line equipment;

(d) one (1) heatset web offset printing press (ID No. AIG-006) installed in July 1996, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment;

(e) one (1) heatset web offset printing press (ID No. AIG-007) installed in May 1998, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment;

(f) one (1) heatset web offset printing press (ID No. AIG-008) installed in May 1999, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment;

(g) One (1) heatset web offset printing press (ID No. AIG-009) installed in January 2005 (scheduled for conversion to two lines by March 2008), with two (2) lines, each with a maximum line speed of 1,800 feet per minute and a maximum print width of 38 inches, with associated in-line equipment; and

(h) One (1) heatset web offset printing press (ID No. AIG-010) installed in January 2005, with two (2) lines, each with a maximum line speed of 1,800 feet per minute and a maximum print width of 36 inches, with associated in-line equipment.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities as defined in 326 IAC 2-7-1(21):

(a) Natural gas fired combustion sources with heat input equal to or less than 10 million British thermal units per hour;

(b) combustion source flame safety purging on startup;

(c) storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons;

(d) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(e) cleaners and solvents characterized as follows:
(1) having a vapor pressure equal to or less than 2 kPa, measured at 38ºC, or
(2) having a vapor pressure equal to or less than 0.7 kPa, measured at 20ºC;

(f) the following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment;

(g) closed loop heating and cooling systems;

(h) infrared cure equipment;

(i) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

(j) trimmers that do not produce fugitive emissions and that are equipped with a dust collector or trim material recovery;

(k) paved and unpaved roads and parking lots with public access [326 IAC 6-4];

(l) blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling towers;

(m) filter or coalesce media changeout; and

(n) the following miscellaneous activities: film wash, ink jets, glass cleaners, plate compressors, proof marker system, film processors, ink blending, and a scrap handling system.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

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, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, F071-22986-00024, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal 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.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) The annual compliance certification report 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, OAQ on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:

(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; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.12 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to F071-22986-00024 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) 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, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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 Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)

77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

(b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Source Modification Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilizes any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), 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.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

C.6 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).

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

Testing Requirements [326 IAC 2-8-4(3)]

C.8 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 any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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 Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

(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 response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(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, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.15 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required monitoring data, reports and support information required by this permit 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 physically present or electronically accessible at the source location for a minimum of three (3) years. 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 request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.16 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(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 Quality
100 North Senate Avenue

MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(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, OAQ on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.17 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

(b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) 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 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Eight (8) heatset web offset printing presses, controlled by a natural gas fired thermal oxidizer system (ID Nos. TAB-1, TAB-2 and/or TAB-3), with maximum heat input rate of 0.7, 1.98 and 9.0 million British thermal units (MMBtu) per hour, respectively, exhausting through stack ID No. TAB-1, TAB-2, and TAB-3, respectively, including:

(a) one (1) heatset web offset printing press (ID No. AIG-002) installed in April 1993, with a maximum line speed of 1,080 feet per minute and a maximum print width of 25 inches, with associated in-line equipment;

(b) one (1) heatset web offset printing press (ID No. AIG-004) installed in March 1994 with two (2) lines, each with a maximum line speed of 1,400 feet per minute and each with a maximum print width of 36 inches, with associated in-line equipment;

(c) one (1) heatset web offset printing press (ID No. AIG-005) installed in November 1994 with two (2) lines, each with a maximum line speed of 1,200 feet per minute and each with a maximum print width of 50 inches, with associated in-line equipment;

(d) one (1) heatset web offset printing press (ID No. AIG-006) installed in July 1996, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment;

(e) one (1) heatset web offset printing press (ID No. AIG-007) installed in May 1998, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment;

(f) one (1) heatset web offset printing press (ID No. AIG-008) installed in May 1999, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment;

(g) one (1) heatset web offset printing press (ID No. AIG-009) installed in January 2005 (scheduled for conversion to two lines by March 2008), with two (2) lines, each with a maximum line speed of 1,800 feet per minute and a maximum print width of 38 inches, with associated in-line equipment; and

(h) one (1) heatset web offset printing press (ID No. AIG-010) installed in January 2005, with two (2) lines, each with a maximum line speed of 1,800 feet per minute and a maximum print width of 36 inches, with associated in-line equipment.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8] [326 IAC 2-2]

(a) The total volatile organic compounds (VOC) delivered to the applicators of the eight (8) printing presses AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008, AIG-009 and AIG-010 shall be limited such that the controlled VOC emissions shall be less than 65.6 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(1) Compliance with the above limit shall limit the source-wide potential to emit of VOC to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) shall not apply.

(2) The VOC emissions calculated shall be the total of all printing presses. The flash off factors to be used shall be obtained from the U.S. EPA's "Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing" (EPA 453/R-06-002, September 2006). The destruction efficiencies to be used for each thermal oxidizer shall be obtained from the most recent valid stack test.

D.1.2 Best Available Control Technology (BACT) [326 IAC 8-1-6]

(a) Pursuant to FESOP No. 071-6121-00024, Significant Modification and Revision 071-9418-00024 and Minor Permit Modification and Revision 071-20380-00024, issued on December 9, 1996, May 7, 1998, and January 14, 2007, respectively, the Best Available Control Technology (BACT) for the printing presses has been determined to be the use of a thermal oxidizer control system (TAB-1, TAB-2 and/or TAB-3) at all times the presses are in operation in conjunction with the following:

(1) 20 percent (%) by weight ink VOC retention in the substrate is assumed for heatset offset printing and;

(2) 50 percent (%), by weight, manual cleaning solution VOC retention is assumed in the cleaning towels and;

(3) A VOC capture system shall be used which shall achieve:
(a) 100 percent (%) minimum efficiency, by weight, for press ready inks;
(b) 70 percent (%) minimum efficiency, by weight, for press ready fountain solutions; and
(c) 40 percent (%) minimum efficiency, by weight, for automatic cleaning solutions.

(4) A minimum destruction efficiency of 95 percent (%), by weight of captured VOC shall be achieved at the thermal oxidizers, TAB-1, TAB-2 and/or TAB-3, when controlling emissions from any of the presses.

(b) The total VOC emissions from the two (2) printing presses, identified as AIG-009 and AIG-010, shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit will make 326 IAC 8-1-6 not applicable.

D.1.3 Hazardous Air Pollutant Limits [326 IAC 2-8]

(a) Single hazardous air pollutant (HAP) delivered at the applicators shall be limited such that the controlled single HAP emissions will be less than ten (10) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(b) Total combined hazardous air pollutants (HAPs) delivered at the applicators shall be limited such that the controlled combined HAP emissions will be less than twenty-five (25) tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(c) The HAP emissions calculated shall be from the total of all the printing presses. The flash off factors to be used shall be obtained from the U.S. EPA's "Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing" (EPA 453/R-06-002, September 2006. The destruction efficiencies to be used for each thermal oxidizer shall be obtained from the most recent valid stack test.

(d) Compliance with the above limits shall limit the source-wide potential to emit of single HAP to less than ten (10) tons per twelve (12) consecutive month period and total combined HAPs to less than twenty-five (25) tons per twelve consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) and New Source Toxics (326 IAC 2-4.1) shall not apply.

D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, is required for this facility and its control devices.

Compliance Determination Requirements

D.1.5 Testing Requirements [326 IAC 2-1.1-11]

(a) The Permittee shall perform stack testing to verify compliance of the three (3) natural gas fired thermal oxidizers identified as TAB-1, TAB-2, and TAB-3. The Permittee shall conduct a performance test to verify VOC destruction efficiency as per condition D.1.1 for the thermal oxidizers utilizing methods as approved by the Commissioner. The last VOC destruction testing was conducted on October 25, 2006, October 26, 2006, and October 27, 2006 for TAB-1, TAB-2, and TAB-3, respectively.

(b) The VOC destruction efficiency test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration.

(c) VOC capture by the press dryers shall be demonstrated by verifying negative dryer pressure using an air flow direction indicator or differential pressure gauge within thirty (30) days of a fundamental change, which may be indicated by operating parameters, and may include any of the following:

(1) Adding print stations to a press;
(2) Increasing or decreasing the volumetric flow rate from the dryer;
(3) Changing the duct pressure.

All testing shall be conducted in accordance with Section C - Performance Testing.

D.1.6 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP)

Compliance with the VOC and HAP usage limitations contained in Conditions D.1.1, D.1.2(b) and D.1.3 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the manufacturer of the “as supplied” materials and formulation data supplied by the source for “as applied” process materials. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.7 Volatile Organic Compound (VOC) Control

(a) The capture system shall be in operation at all times when the printing presses are in operation. All emissions from the capture system shall be directed to the thermal oxidizer system.

(b) When operating the printing presses, the thermal oxidizers controlling the VOC emissions shall maintain a minimum operating temperature of 1,400°F or a temperature determined in the most recent compliance stack tests to maintain a minimum destruction efficiency of 95 percent of captured volatile organic compounds.

(c) When operating the printing presses, the VOC capture system (the press dryers) shall maintain a negative pressure in order to insure a minimum capture efficiency for the following Best Available Control Technology (BACT):

(1) 20 percent (%) by weight ink VOC retention in the substrate is assumed for heatset offset printing.

(2) 50 percent (%), by weight, manual cleaning solution VOC retention is assumed in the cleaning towels.

(3) A VOC capture system shall be used which shall achieve:

(A) 100 percent (%) minimum efficiency, by weight, for press ready inks.
(B) 70 percent (%) minimum efficiency, by weight, for press ready fountain solutions.
(C) 40 percent (%) minimum efficiency, by weight, for automatic cleaning solutions.

(4) A minimum destruction efficiency of 95 percent (%), by weight, of captured VOC shall be achieved at the thermal oxidizer system.

D.1.8 VOC and HAP Emissions

(a) Compliance with Conditions D.1.1, D.1.2(b) and D.1.3 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound (VOC) emissions, total combined HAP emissions and single HAP emissions for the most recent twelve (12) consecutive month period.

(b) Compliance with the VOC and HAP limits will be determined by using the following equation:

$$Et = U \times V \times F/100 \times [1 - (C/100) \times (D/100)]$$

Where:

Et = Total VOC or HAP (single HAP or total combined HAP) emissions from all presses.
U = Total usage of each material on all presses
V = VOC or HAP content of each material on all presses
F = Flash off factor of VOC or HAP from each material on all presses [80 percent (%) for press ready inks; 50 percent (%) for manual cleaning solution; and 100 percent (%) for all other materials]
C = Capture efficiency for the thermal oxidizer system [100 percent (%) for press ready inks; 70 percent (%) for press ready fountain solutions; and 40 percent (%) for automatic cleaning solutions]
D = Destruction efficiency for VOC or HAP of the thermal oxidizer system [a minimum of 95 percent (%) or the destruction efficiency obtained from the most recent valid stack test]

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

D.1.9 Thermal Oxidizer Temperature

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizers for measuring operating temperature. The output of the system shall be recorded as the actual temperatures or the three (3) hour average temperature. If the actual temperature is recorded, verification of the three (3) hour average temperature will be determined from the recorded actual temperatures. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the hourly average temperature of 1400°F when controlling emissions from any of the presses.

(b) The Permittee shall determine the three (3) hour average temperature from the most recent valid stack test that demonstrates compliance with limits in condition D.1.1, D.1.2(b) and D.1.3, as approved by IDEM.

(c) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the three (3) hour average temperature as observed during the compliant stack test when controlling emissions from any of the presses.

D.1.10 Press Dryer Air Flow Verification

(a) The Permittee shall maintain a negative air pressure in the press dryers relative to the surrounding room.

(b) To demonstrate that a negative air pressure is achieved, the Permittee shall use an air flow direction indicator or install differential pressure gauges at each of the dryer inlets and outlets, and measure and record the air flow direction or differential pressure across the dryers at least once per day while the thermal oxidizers are in operation.

(c) Maintaining a negative pressure in the dryers shall yield the following capture efficiencies:

(1) 100 percent (100%) capture, by weight, of the VOCs in press ready inks.

(2) 70 percent (70%) capture, by weight, of the VOCs in press ready fountain solutions.

(3) 40 percent (40%) capture, by weight, of the VOCs in press ready automatic cleaning solvents.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.11 Record Keeping Requirement

(a) To document compliance with Conditions D.1.1, D.1.2(b) and D.1.3, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC and HAP usage limits and/or the VOC and HAP emission limits established in Conditions D.1.1, D.1.2(b) and D.1.3:

(1) The amount and VOC and HAP content of each heatset offset printing ink, fountain solution, cleaning solution, and miscellaneous other materials used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(2) The heatset offset printing ink, fountain solution, cleaning solution, and miscellaneous other material usages for each month.

(3) The total VOC emitted for each compliance period.

(4) The total HAP and worst-case single HAP emitted for each compliance period.

(b) To document compliance with D.1.7, the Permittee shall maintain the continuous temperature records for the thermal oxidizers. The Permittee shall ensure the capability of calculating a three (3) hour average temperature when required for compliance verification.

(c) To document compliance with condition D.1.8, the Permittee shall maintain records of the

daily air flow direction verification or differential pressure readings.

(d) All records shall be maintained in accordance with Section C – General Record Keeping Requirement of this permit.

D.1.12 Reporting Requirement

A quarterly summary of the information to document compliance with Conditions D.1.1, D.1.2(b) and D.1.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: RR Donnelley Seymour Plant
Source Address: 709 A Avenue East, Seymour, Indiana 47274
Mailing Address: 709 A Avenue East, Seymour, IN 47274
FESOP Permit No.: F071-22986-00024

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)_____

☐ Report (specify)_____

☐ Notification (specify)_____

☐ Affidavit (specify)_____

☐ Other (specify)_____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: RR Donnelley Seymour Plant
Source Address: 709 A Avenue East, Seymour, Indiana 47274
Mailing Address: 709 A Avenue East, Seymour, IN 47274
FESOP Permit No.: F071-22986-00024

This form consists of 2 pages **Page 1 of 2**

□ This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: RR Donnelley Seymour Plant
Source Address: 709 A Avenue East, Seymour, Indiana 47274
Mailing Address: 709 A Avenue East, Seymour, IN 47274
FESOP Permit No.: F071-22986-00024
Facility: Heatset web offset presses ID No. AIG-009 and AIG-010
Parameter: Volatile Organic Compound (VOC) emissions
Limit: VOC emissions from these two (2) presses combined shall be less than twenty-five (25) tons per twelve (12) consecutive month period, based on (1) 20% (wt.) ink VOC retention in the substrate for offset printing; (2) 50% (wt.) manual cleaning solution VOC retention in cleaning towels; (3) the following capture efficiencies for the capture system of the thermal oxidizer controlling the eight (8) presses: ink – 100%, fountain solution – 70%, and automatic cleaning solution 40%; (4) each thermal oxidizer minimum destruction efficiency of captured VOC of 95% (wt.); and (5) the following equation: VOC emissions = [VOC input x flash off factor x [1 - (capture efficiency x destruction efficiency)].

YEAR: _____ QUARTER: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)
Month 1			
Month 2			
Month 3			

□ No deviation occurred in this quarter.

□ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: RR Donnelley Seymour Plant
Source Address: 709 A Avenue East, Seymour, Indiana 47274
Mailing Address: 709 A Avenue East, Seymour, IN 47274
FESOP Permit No.: F071-22986-00024
Facility: Eight (8) heatset web offset presses (ID Nos. AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008, AIG-009 and AIG-010)
Parameter: Volatile Organic Compound (VOC) emissions
Limit: VOC emissions from these eight (8) presses combined shall be less than 65.6 tons per twelve (12) consecutive month period, based on (1) 20% (wt.) ink VOC retention in the substrate for offset printing; (2) 50% (wt.) manual cleaning solution VOC retention in cleaning towels; (3) the following capture efficiencies for the capture system of the thermal oxidizer controlling the eight (8) presses: ink – 100%, fountain solution – 70%, and automatic cleaning solution 40%; (4) each thermal oxidizer minimum destruction efficiency of captured VOC of 95% (wt.); and (5) the following equation: VOC emissions = [VOC input x flash off factor x [1 - (capture efficiency x destruction efficiency)].

YEAR: _____ QUARTER: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)
Month 1			
Month 2			
Month 3			

□ No deviation occurred in this quarter.

□ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: RR Donnelley Seymour Plant
Source Address: 709 A Avenue East, Seymour, Indiana 47274
Mailing Address: 709 A Avenue East, Seymour, IN 47274
FESOP Permit No.: F071-22986-00024
Facility: Eight (8) heatset web offset presses (ID Nos. AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008, AIG-009 and AIG-010)
Parameter: Single HAP emissions
Limit: The maximum individual HAP from these eight (8) presses combined shall be less than ten (10) tons per twelve (12) consecutive month period, based on (1) 20 wt% ink HAP retention in the substrate; (2) 50 wt% manual cleaning solution HAP retention in cleaning towels; (3) the following capture efficiencies for the capture system of the thermal oxidizer controlling the eight (8) presses: ink – 100%, fountain solution – 70%, and automatic cleaning solution 40%; (4) each thermal oxidizer minimum destruction efficiency of captured HAP of 95 wt%; and (5) the following equation: Single HAP emissions = [single HAP input x flash off factor x [1 - (capture efficiency x destruction efficiency)].

YEAR: _____ QUARTER: _____

HAP NAME: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (tons)	Previous 11 Months (tons)	12 Month Total (tons)
Month 1			
Month 2			
Month 3			

□ No deviation occurred in this quarter.

□ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP QUARTERLY REPORT

Source Name: RR Donnelley Seymour Plant
Source Address: 709 A Avenue East, Seymour, Indiana 47274
Mailing Address: 709 A Avenue East, Seymour, IN 47274
FESOP No.: F071-22986-00024
Facility: Eight (8) heatset web offset presses (ID Nos. AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008, AIG-009, AIG-010)
Parameter: Total Combined HAPs emissions
Limit: The total combined HAPs from these eight (8) presses combined shall be less than twenty-five (25) tons per twelve (12) consecutive month period, based on (1) 20% (wt.) ink HAP retention in the substrate for offset printing; (2) 50% (wt.) manual cleaning solution HAP retention in cleaning towels; (3) the following capture efficiencies for the capture system of the thermal oxidizer controlling the eight (8) presses: ink – 100%, fountain solution – 70%, and automatic cleaning solution 40%; (4) each thermal oxidizer minimum destruction efficiency of captured VOC of 95% (wt.); and (5) the following equation: Total combined HAPs emissions = [total combined HAPs input x flash off factor x [1 - (capture efficiency x destruction efficiency)].

QUARTER: _____ **YEAR:** _____

Month	Column 1	Column 2	Column 1 + Column 2
	Total Combined HAPs This Month (tons)	Total Combined HAPs Previous 11 Months (tons)	Total Combined HAPs 12 Month Total (tons)
Month 1			
Month 2			
Month 3			

☐ No deviations occurred in this quarter.

☐ Deviations occurred in this quarter.

Deviation has been reported on: _____
Submitted by: _____
Title /Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: RR Donnelley Seymour Plant
Source Address: 709 A Avenue East, Seymour, Indiana 47274
Mailing Address: 709 A Avenue East, Seymour, IN 47274
FESOP Permit No.: F071-22986-00024

Months: _____ **to** _____ **Year:** _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box □ marked No deviations occurred this reporting period.

□ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

□ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Page 2 of 2

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a FESOP Renewal

Source Name:	RR Donnelley Seymour Plant
Source Location:	709A Avenue East, Seymour, IN 47274
County:	Jackson
SIC Code:	2752
Operation Permit No.:	F071-22986-00024
Permit Reviewer:	Donald McQuigg

On November 27, 2007, the Office of Air Quality (OAQ) had a notice published in the Tribune in Seymour, Indiana, stating that RR Donnelley Seymour Plant had applied for a Federally Enforceable Operating Permit (FESOP) renewal for a stationary heatset web offset printing operation. The notice also stated that OAQ proposed to issue a permit renewal for this operation and provided information on how the public could review the proposed permit renewal and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit renewal should be issued as proposed.

Changes to the permit are noted as follows: ~~struck~~ language has been deleted; **bold** language has been added. The Table of Contents has been modified to reflect these changes.

Comments on the proposed FESOP renewal were received on December 26, 2007 from Mr. Dale G. Kalina of RR Donnelley Seymour Plant. IDEM, OAQ prefers the Technical Support Document (TSD) remain the same as the version that was public noticed. Therefore, the TSD will not be changed, but noted in this addendum. The comments are as follows:

Comment 1:

RR Donnelley requests that some minor revisions be made to clarify the permit requirements in the permit.

Response to Comment 1:

IDEM, OAQ concurs with the minor revisions and the following changes will be made:

1. Changes in the Table of Contents

Emission Limitations and Standards [326 IAC 2-8-4(1)]
- D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-8] [326 IAC 2-2]
- D.1.2 Best Available Control Technology (BACT) [326 IAC 8-1-6]
- D.1.3 Hazardous Air Pollutant Limits ~~(HAP)~~ [326 IAC 2-8]
- D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

2. Changes in Permit Section D.1

D.1.8 VOC and HAP Emissions

(a) Compliance with Conditions D.1.1, D.1.2(b) and D.1.3 shall be demonstrated within 30 days of the end of each month based on the total volatile organic

compound (VOC) emissions, total combined HAP emissions and single HAP emissions for the most recent twelve (12) consecutive month period.

(b) Compliance with the VOC and HAP limits will be determined by using the following equations:

Et = U x V x F/100 x [1 - (C/100) x (D/100)]

Where:

Et = Total VOC or HAP (single HAP or total combined HAP) emissions from all presses
U = Total usage of each material on all presses
V = VOC or HAP content of each material on all presses
F = Flash off factor of **VOC or HAP from** each material on all presses [80 percent (%) for press ready inks; 50 percent (%) for manual cleaning solution; and 100 percent (%) for all other materials]
C = Capture efficiency for ~~each~~ **the** thermal oxidizer **system** ~~from each press~~ [100 percent (%) for press ready inks; 70 percent (%) for press ready fountain solutions; and 40 percent (%) for automatic cleaning solutions]
D = Destruction efficiency for **VOC or HAP of the** ~~each~~ thermal oxidizer **system** ~~from each press~~ [a minimum of 95 percent (%) or the destruction efficiency obtained from the most recent valid stack test]

3. Changes in Permit Section D.1.10

D.1.10 Press Dryer Air Flow Verification

(a) The Permittee shall maintain a negative air ~~flow~~ pressure ~~for~~ **in** the press dryers relative to the surrounding room ~~as indicated by an air flow direction indicator or differential pressure gauges across the dryer inlets and outlets~~.

(b) To demonstrate that a negative air ~~flow~~ pressure is achieved, the Permittee shall use an air flow direction indicator or install differential pressure gauges at each of the dryer inlets and outlets, and measure and record the air flow direction or differential pressure across the dryers at least once per day while the thermal oxidizers are in operation.

(c) Maintaining a negative ~~air flow~~ pressure ~~across~~ **in** the dryer**s** ~~inlets and outlets~~ shall yield the following capture efficiencies:

(1) 100 percent (100%) capture, by weight, of the VOCs in press ready inks.

(2) 70 percent (70%) capture, by weight, of the VOCs in press ready fountain solutions.

(3) 40 percent (40%) capture, by weight, of the VOCs in press ready automatic cleaning solvents.

4. Changes in Quarterly Deviation and Compliance Monitoring Report

~~Attach a signed certification to complete this report~~.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE DATA SECTION
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Comment 2:
Condition D.1.10- Press Dryer Air Flow Verification

RR Donnelley proposes to remove the requirements of Condition D.1.10(b), which verifies negative dryer air pressure. This condition does not provide any additional environmental protection. The dryers for heatset lithographic printing presses are designed such that they can only be operated if they achieve a negative pressure relative to the surrounding area. Therefore, the provisions of Condition D.1.10(b) requiring the installation of flow direction indicators or differential pressure gauges is unnecessary to guarantee effective VOC capture. RR Donnelley has provided a manufacturer's document describing dryer design and operation.

Response to Comment 2:

In order to ensure that the FESOP limits are met, it is essential that the press dryers achieve VOC captures designated in the permit. The dryer design descriptions from the manufacturer provided by RR Donnelley state that, theoretically, the dryers will shut down if negative pressure is not maintained in the dryer. However, there is no manufacturers performance warranty which guarantees effective VOC capture. Furthermore, RR Donnelley did not provide any guidance or discuss how to ensure proper dryer performance over time. In the past, IDEM, OAQ field Inspectors and Compliance personnel have observed similar dryers at other facilities functioning with visible emissions of condensed oil exiting the web openings into the pressroom. In order to provide a basis for assuming 100% VOC capture by the press dryers, the U.S. EPA recommends showing that the dryer is operating at a negative pressure relative to the surrounding pressroom area ["Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing" EPA 453/R-06-002, September 2006]. Therefore, Condition D.1.10(b) stands as written.

Comment 3:
Condition D.1.11(c)- Record Keeping Requirements

RR Donnelley proposes to remove the requirements of Condition D.1.11(c), which documents verification of negative air pressure in the dryer, asserting that this condition does not provide any additional environmental information.

Response to Comment 3:

These records are required in order to document compliance with Conditions D.1.1, D.1.2(b), and D.1.3. Therefore, Condition D.1.11(c) stands as written.

OAQ Changes:

On December 16, 2007, 326 IAC 2-1.1-9.5 was amended. Therefore, IDEM, OAQ has changed condition B.2 to extend the permit term to ten (10) years, as follows:

B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, F071-22986-00024, is issued for a fixed term of ~~five (5)~~ **ten (10)** years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	**RR Donnelley Seymour Plant**
Source Location:	**709 A Avenue East, Seymour, IN 47274**
County:	**Jackson**
SIC Code:	**2752**
Operation Permit No.:	**F071-13917-00024**
Operation Permit Issuance Date:	**February 25, 2002**
Permit Renewal No.:	**F071-22986-00024**
Permit Reviewer:	**Donald McQuigg**

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from RR Donnelley Seymour Plant relating to the operation of stationary heatset web offset printing source. A request by the Permittee for a name change from Moore Wallace, an RR Donnelley Company to RR Donnelley Seymour Plant is also incorporated into this permit.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

Eight (8) heatset web offset printing presses, controlled by a natural gas fired thermal oxidizer system (ID No. TAB-1, TAB-2 and/or TAB-3), with maximum heat input capacities of 0.7, 1.98 and 9.0 million British thermal units (MMBtu) per hour, respectively, exhausting through stack ID No. TAB-1, TAB-2, and TAB-3, respectively, including:

(a) one (1) heatset web offset printing press (ID No. AIG-002) installed in April 1993, with a maximum line speed of 1,080 feet per minute and a maximum print width of 25 inches, with associated in-line equipment;

(b) one (1) heatset web offset printing press (ID No. AIG-004) installed in March 1994 with two (2) lines, each with a maximum line speed of 1,400 feet per minute and each with a maximum print width of 36 inches, with associated in-line equipment;

(c) one (1) heatset web offset printing press (ID No. AIG-005) installed in November 1994 with two (2) lines, each with a maximum line speed of 1,200 feet per minute and each with a maximum print width of 50 inches, with associated in-line equipment;

(d) one (1) heatset web offset printing press (ID No. AIG-006) installed in July 1996, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment;

(e) one (1) heatset web offset printing press (ID No. AIG-007) installed in May 1998, with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment;

(f) one (1) heatset web offset printing press (ID No. AIG-008) installed in May 1999, with two (2) lines, each with a maximum line speed of 1,400 feet per minute and a maximum print width of 38 inches, with associated in-line equipment;

(g) One (1) heatset web offset printing press (ID No. AIG-009) installed in January 2005 (scheduled for conversion to two lines by March 2008), with two (2) lines, each with a maximum line speed of 1,800 feet per minute and a maximum print width of 38 inches, with associated in-line equipment; and

(h) One (1) heatset web offset printing press (ID No. AIG-010) installed in January 2005, with two (2) lines, each with a maximum line speed of 1,800 feet per minute and a maximum print width of 36 inches, with associated in-line equipment.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

Insignificant Activities

(a) Natural gas fired combustion sources with heat input equal to or less than 10 million British thermal units per hour;

(b) combustion source flame safety purging on startup;

(c) storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons;

(d) vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(e) cleaners and solvents characterized as follows:
(1) having a vapor pressure equal to or less than 2 kPa, measured at 38ºC, or
(2) having a vapor pressure equal to or less than 0.7 kPa, measured at 20ºC;

(f) the following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment;

(g) closed loop heating and cooling systems;

(h) infrared cure equipment;

(i) replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

(j) trimmers that do not produce fugitive emissions and that are equipped with a dust collector or trim material recovery;

(k) paved and unpaved roads and parking lots with public access [326 IAC 6-4];

(l) blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling towers;

(m) filter or coalesce media changeout; and

(n) the following miscellaneous activities: film wash, ink jets, glass cleaners, plate compressors, proof marker system, film processors, ink blending, and a scrap handling system.

Existing Approvals

The source has been operating under the previous FESOP F071-13917-00024 issued on February 25, 2002, with an expiration date of February 25, 2007, and the following amendments and revisions:

(a) AA 071-15805-00024 issued on April 23, 2002;

(b) MPR 071-20380-00024 issued on January 14, 2005; and

(c) AA 071-20932-00024 issued on May 5, 2005.

All conditions from previous approvals were incorporated into this FESOP permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP renewal 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 administratively complete FESOP renewal application for the purposes of this review was received on April 21, 2006.

Emission Calculations

See pages 1 through 18 of Appendix A of this document for detailed emission calculations.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	0.62
PM-10	2.49
SO_2	0.20
VOC	1114.5
CO	27.55
NO_x	32.80

HAPs	Unrestricted Potential Emissions (tons/yr)
Glycol Ethers	3.87
Vinyl Acetate	10.33
Ethylene Glycol	11.36
Cumene	0.66
Xylene	1.00
Naphthalene	0.04
Hexane	0.59

Total	27.85

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of VOC is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7. However, the Permittee has agreed to limit its VOC emissions to less than Title V levels; therefore, the Permittee will be issued a FESOP.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. However, the Permittee has agreed to limit its HAP emissions to below Title V limits. Therefore, a FESOP will be issued.

(d) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward determination of Part 70 applicability.

Potential to Emit After Issuance

The Permittee has opted to retain its FESOP status. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the Permittee has not constructed any new emission units, the Source's potential to emit is based on the emission units included in the original FESOP.

	Potential To Emit (tons/year)								
Process/emission unit	PM	PM-10	SO_2	VOC		CO	NO_x	Single HAP	Combined HAPs
AIG-002	-	-	-	Limited to Less than 65.6[b]	N/A	-	-	Limited to Less than 10.0	Less than 24.38
AIG-004	-	-	-			-	-		
AIG-005	-	-	-			-	-		
AIG-006	-	-	-			-	-		
AIG-007	-	-	-			-	-		
AIG-008	-	-	-			-	-		
AIG-009	-	-	-		Less than 25.0[a]	-	-		
AIG-010	-	-	-			-	-		
Combustion	0.62	2.49	0.20	1.80		27.55	32.80	0.59 (Hexane)	0.62
Insignificant activities	-	-	-	1.84		-	-	-	-
Total Emissions	0.62	2.49	0.20	<69.24		27.55	32.80	<10.0	<25.0

"-" signifies negligible

a) A VOC emissions cap of less than 25 tons per year total has been established for AIG-009 and AIG-010.
b) The Permittee has opted to retain the VOC emission limitation cap of 65.6 tons per year total for all the presses.

County Attainment Status

The Source is located in Jackson County.

Pollutant	Status
PM-10	attainment
PM-2.5	attainment
SO_2	attainment
NO_2	attainment
8 hour Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to the ozone standards. Jackson County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability- Entire Source section.

(b) Jackson County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.

(c) Jackson County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

(d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 redesignating Delaware, Greene, Jackson, Vanderburgh, Vigo and Warrick Counties to attainment for the eight (8) -hour ozone standard.

(e) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one (1) -hour ozone standard.

(f) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD applicability.

Source Status

Existing Source PSD, Part 70, or FESOP Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	0.62
PM-10	2.49
SO_2	0.20
VOC	< 100.0
CO	27.55
NO_x	32.80
Single HAP	<10.0
Combination HAPs	<25.0

This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 100 tons per year or greater, and it is not in one of the 28 listed source categories.

Federal Rule Applicability

(a) This source is not required to obtain a part 70 permit. Therefore, 40 CFR 64 (Compliance Assurance Monitoring) is not included in this permit.

(b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit.

(1) The storage capacity of each of the tanks at this source is less than the applicability threshold capacities established in 40 CFR 60 subparts K, Ka, and Kb. Therefore, these requirements are not included in this permit.

(2) The eight (8) printing presses identified as AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008, AIG-009 and AIG-010 are heatset web offset lithographic presses, and not publication rotogravure printing presses. Therefore, New Source Performance Standard, 326 IAC 12, (40 CFR 60, Subpart QQ) is not included in this permit.

(c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 20 and 40 CFR Part 61, 63) included in this permit.

The eight (8) printing presses identified as AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008, AIG-009 and AIG-010 are heatset web offset lithographic presses and not publication rotogravure, packaging rotogravure or wide-web flexographic printing presses. Therefore, National Emission Standards for Hazardous Air Pollutants (NESHAPs), (40 CFR 63.820, Subpart KK) is not included in this permit.

There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 20 and 40 CFR Part 61, 63) included in this permit.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)
This source which was constructed in 1993, and has had no major modifications, is not subject to the requirements of 326 IAC 2-2 because the potential to emit of all criteria pollutants except VOC is less then 250 tons per year. The potential to emit of VOC is limited to less than 250 tons per year (See FESOP limitations below). Therefore, this source is a minor source under PSD.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The six (6) heatset web offset printing presses, identified as AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008, are not subject to 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) because they were constructed prior to July 27, 1997, the applicability date of this rule. The two (2) heatset web offset printing presses, identified as AIG-009 and AIG-010 which were constructed

in 2005 are not subject to 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)) because they do not have the uncontrolled potential to emit of 10 tons per year of any single HAP or 25 tons per year of any combination of HAPs. Therefore, the requirements of this rule do not apply.

326 IAC 2-6 (Emission Reporting)

The Permittee is located in Jackson County, is not required to obtain an operating permit under 326 IAC 2-7, and does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. The potential to emit of all regulated criteria pollutants is limited to less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM10, SO_2, VOC, CO and NO_X emitted shall each be less than one hundred (100) tons per year. In addition, the amount of the worst case single HAP emitted shall be less than ten (10) tons per year and the total combination of HAPs emitted shall be less than twenty-five (25) tons per year. The potential to emit VOC from this source is greater than 100 tons per year. In addition, the potential to emit of a single HAP is greater than ten (10) tons per year and the potential to emit of a combination of HAPs is greater than twenty-five (25) tons per year. Therefore, the following emission limitations are necessary to render the requirements of 326 IAC 2-7 not applicable.

VOC emissions shall be limited as follows:

(a) The total volatile organic compounds (VOC) delivered to the applicators of the eight (8) printing presses AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008, AIG-009 and AIG-010 shall be limited such that the controlled VOC emissions shall be less than 65.6 tons per twelve (12) consecutive month period with compliance determined at the end of each month. This ensures that VOC emissions from the entire source are less than one hundred (100) tons per year. The VOC emissions calculated shall be from the sum of each individual printing press. The flash off factors to be used shall be obtained from the U.S. EPA's "Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing" (EPA 453/R-06-002, September 2006). The destruction efficiencies to be used for each thermal oxidizer shall be a minimum of 95 percent (%) or the destruction efficiency obtained from the most recent valid stack test. Compliance with this limit will be demonstrated by using the following equations:

Total VOC emissions from all presses

$Et = U \times V \times F/100 \times [1- (C/100) \times (D/100)]$

Where:

Et = Total VOC emissions from all presses
U = Total usage of each material on all presses
V = VOC content of each material on all presses
F = Flash off factor of each material on all presses
C = VOC capture efficiency for the thermal oxidizer system from the presses [100 percent (%) for press ready inks; 70 percent (%) for press ready fountain solutions; and 40 percent (%) for automatic cleaning solutions]
D = Destruction efficiency for the thermal oxidizers [a minimum of 95 percent (%) or the destruction efficiency obtained from the most recent valid stack test]

Compliance with the requirements of condition (a) above shall limit the potential to emit of VOC to less than 100 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (PSD) shall not apply.

HAP emissions shall be limited as follows:

(b) Single hazardous air pollutant (HAP) delivered at the applicators of the eight (8) presses, identified as AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008, AIG-009 and AIG-010, shall be limited such that the controlled single HAP emissions will be less than ten (10) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. Total combined hazardous air pollutants (HAPs) delivered at the applicators of the eight (8) presses, identified as AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008, AIG-009 and AIG-010, shall be limited such that the controlled combined HAP emissions will be less than twenty-five (25) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. The HAP emissions calculated shall be the total of all individual printing presses. The flash off factors to be used shall be obtained from the U.S. EPA's "Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing" (EPA 453/R-06-002, September 2006). The destruction efficiencies to be used for each thermal oxidizer shall be a minimum of 95% or the destruction efficiency obtained from the most recent valid stack test. Compliance with this limit will be demonstrated by using the following equations:

HAP emissions from all presses

$$E = U \times V \times F/100 \times [1 - (C/100) \times (D/100)]$$

Where:

Et = Total single or combined HAP emissions from all presses
U = Total usage of each material on all presses
V = HAP content of each material on all presses
F = Flash off factor of each material on all presses
C = Capture efficiency for each thermal oxidizer from the presses [100 percent (%) for press ready inks; 70 percent (%) for press ready fountain solutions; and 40 percent (%) for automatic cleaning solutions]
D = Destruction efficiency for the thermal oxidizers for each press [a minimum of 95 percent (%) or the destruction efficiency obtained from the most recent valid stack test]

Compliance with the requirement (b) above shall limit the potential to emit a single HAP to less than ten (10) tons per twelve (12) consecutive month period and combined HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period from the entire source. Therefore, the requirements of 326 IAC 2-7 (Part 70) and New Source Toxics (326 IAC 2-4.1) shall not apply.

326 IAC 5-1 (Opacity Limitations)

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

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Particulate Emissions Limitations for Manufacturing Processes)

(a) The insignificant welding activity consumes less than 625 pounds of weld wire or rod per day. Therefore, pursuant to 326 IAC 6-3-1(b)(9), the insignificant welding is exempt from the requirements of 326 IAC 6-3.

(b) The insignificant torch cutting activity is exempt from the requirements of 326 IAC 6-3 pursuant to 326 IAC 6-3-1(b)(10) since less than 3,400 inches per hour of stock, 1-inch thickness or less is cut.

(c) The printing operation does not have potential particulate emissions that exceed 0.551 pounds per hour. Therefore, pursuant to 326 IAC 6-3-1(b)(14), the printing process is exempt from the requirements of 326 IAC 6-3.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

The six (6) printing presses, identified as AIG-002, AIG-004, AIG-005, AIG-006, AIG-007 and AIG-008 are subject to the requirements of 326 IAC 8-1-6 because the potential VOC emissions from each press is greater than twenty-five (25) tons per year, and they were constructed after January 1, 1980. Pursuant to original FESOP No. 071-6121-00024, Significant Modification and Revision 071-9418-00024 and Minor Permit Modification and Revision 071-20380-00024, issued on December 9, 1996, May 7, 1998, and January 14, 2007, respectively, the Best Available Control Technology (BACT) for AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008, AIG-009 and AIG-010 has been determined to be the use of the thermal oxidizer system identified as TAB-1, TAB-2 and/or TAB-3 at all times the presses are in operation in conjunction with the following:

(1) 20 percent (%) by weight ink VOC retention in the substrate is assumed for heatset offset printing and;

(2) 50 percent (%), by weight, manual cleaning solution VOC retention is assumed in the cleaning towels and;

(3) A VOC capture system shall be used which shall achieve:

(a) 100 percent (%) minimum efficiency, by weight, for press ready inks;

(b) 70 percent (%) minimum efficiency, by weight, for press ready fountain solutions; and

(c) 40 percent (%) minimum efficiency, by weight, for automatic cleaning solutions.

(4) A minimum destruction efficiency of 95 percent (%), by weight of captured VOC shall be achieved at the three thermal oxidizers, TAB-1, TAB-2 and/or TAB-3.

The two (2) printing presses, identified as AIG-009 and AIG-010, are not subject to the requirements of 326 IAC 8-1-6 because the potential VOC emissions shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

326 IAC 8-2-5 (Paper Coating Operations)

The eight (8) printing presses (identified as AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008, AIG-009 and AIG-010) are not subject to the requirements of 326 IAC 8-2-5, because the eight (8) printing presses are not saturation processes.

326 IAC 8-5-5 (Graphic Arts Operations)

The eight (8) printing presses (identified as AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008, AIG-009 and AIG-010) are not subject to the requirements of 326 IAC 8-5-5, because the eight (8) printing presses do not involve packaging rotogravure, publication rotogravure or flexographic printing.

326 IAC 8-6 (Specific VOC Reductions Requirements for Lake, Porter, Clark, and Floyd Counties)

The Source is located in Jackson County; therefore, 326 IAC 8-6 does not apply.

326 IAC 8-9-1 (Volatile Organic Liquid Storage Vessels)

Pursuant to 326 IAC 8-9-1, on and after October 1, 1995 stationary vessels used to store volatile organic liquids (VOL) must comply with the requirement of the rule if located in Clark, Floyd, Lake or Porter Counties. This rule is not applicable to this source since it is located in Jackson County.

Testing Requirements

All testing requirements from previous approvals were incorporated into this FESOP. Since compliance with the VOC control efficiency specified for oxidizers in the FESOP is needed to demonstrate compliance with 326 IAC 2-8 (FESOP), this testing requirement is continued.

(a) The Permittee shall perform stack testing to verify compliance of the three (3) natural gas fired thermal oxidizers identified as TAB-1, TAB-2, and TAB-3. The Permittee shall conduct a performance test to verify VOC destruction efficiency as per condition D.1.1 for the three (3) thermal oxidizers (TAB-1, TAB-2 and TAB-3) utilizing methods as approved by the Commissioner. The last VOC destruction testing was conducted on October 25, 2006, October 26, 2006, and October 27, 2006 for TAB-1, TAB-2, and TAB-3, respectively.

(b) The VOC destruction efficiency test shall be repeated at least once every five years from the date of the most recent valid compliance demonstration.

(c) VOC capture by the press dryers shall be demonstrated by verifying negative dryer pressure using an air flow indicator or differential pressure gauge within thirty (30) days of a fundamental change, which may be indicated by operating parameters, and may include any of the following:

(1) Adding print stations to a press;
(2) Increasing or decreasing the volumetric flow rate from the dryer;
(3) Changing the duct pressure.

All testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions.

The compliance monitoring requirements applicable to this source are as follows:

The three (3) natural gas fired thermal oxidizers have applicable compliance monitoring conditions as specified below:

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the three (3) thermal oxidizers (TAB-1, TAB-2 and TAB-3) for measuring operating temperature. The output of this system shall be recorded as a three (3) hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the hourly average temperature of 1400^{o}F.

(b) The Permittee shall determine the three (3) hour average temperature from the most recent valid stack test that demonstrates compliance with limits required to comply with 326 IAC 2-8 as approved by IDEM.

(c) On and after the date the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the three (3) hour average temperature as observed during the compliant stack test.

(d) Parametric Monitoring

(1) The Permittee shall maintain a negative air flow pressure for the press dryers relative to the surrounding room.

(2) VOC capture by the press dryers shall be demonstrated by verifying negative dryer pressure using an air flow indicator or differential pressure gauge

(3) Maintaining a negative air flow pressure for the press dryers relative to the surrounding room shall yield the following capture efficiencies:

(A) 100 percent (100%) capture, by weight, of the VOC in press ready inks;
(B) 70 percent (70%) capture, by weight, of the VOC in press ready fountain solutions; and
(C) 40 percent (40%) capture, by weight, of the VOC in press ready automatic cleaning solvents.

These monitoring conditions are necessary because the three (3) thermal oxidizers (TAB-1, TAB-2 and TAB-3) for the eight (8) printing presses, (AIG-002, AIG-004, AIG-005, AIG-006, AIG-007, AIG-008, AIG-009 and AIG-010) must operate properly to ensure compliance with 326 IAC 2-8 (FESOP) and 326 IAC 8-1-6 (New Facilities; General Reduction Requirements).

Recommendation

The operation of this stationary heatset web offset printing source shall be subject to the conditions of the FESOP Renewal F071-22986-00024.

Appendix A: Emission Calculations

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

Uncontrolled Potential Emissions (tons/year)

Pollutant	Printing Press AIG-002	Printing Press AIG-004	Printing Press AIG-005	Printing Press AIG-006	Printing Press AIG-007	Printing Press AIG-008	Printing Press AIG-009	Printing Press AIG-010	Natural Gas Combustion	Insignificant Activities	**TOTAL**
PM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.00	0.62
PM10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.49	0.00	2.49
SO2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.20
NOx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.80	0.00	32.80
VOC	48.97	112.85	133.02	57.29	57.29	114.59	151.52	283.81	1.80	1.84	962.98
CO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.55	0.00	27.55
total HAPs	5.18	3.75	4.42	2.01	1.89	5.34	1.57	3.66	0.62	0.00	28.44
worst case single HAP	3.48(Ethylene Glycol)	1.54(Ethylene Glycol)	1.84(Ethylene Glycol)	0.81(Ethylene Glycol)	0.81(Ethylene Glycol)	1.63(Ethylene Glycol)	0.97(Vinyl Acetate)	1.84(Vinyl Acetate)	0.59 (Hexane)	0.00	10.11 (Ethylene Glycol)

Total emissions based on rated capacity at 8,760 hours/year.

Controlled Potential Emissions (tons/year)

Pollutant	Printing Press AIG-002 *	Printing Press AIG-004 *	Printing Press AIG-005 *	Printing Press AIG-006 *	Printing Press AIG-007 *	Printing Press AIG-008 *	Printing Press AIG-009*	Printing Press AIG-010*	Natural Gas Combustion	Insignificant Activities	**TOTAL**
PM	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.00	0.62
PM10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.49	0.00	2.49
SO2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.20
NOx	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32.80	0.00	32.80
VOC	7.91	21.60	24.39	9.13	9.13	18.27	15.36	25.56	1.80	1.84	< 99.0
CO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.55	0.00	27.55
total HAPs	0.61	1.63	1.92	0.86	0.82	1.63	1.10	2.02	0.62	0.00	11.21
worst case single HAP	0.38 (Vinyl Acetate)	1.43 (Vinyl Acetate)	1.70 (Vinyl Acetate)	0.76 (Vinyl Acetate)	0.76 (Vinyl Acetate)	1.51 (Vinyl Acetate)	0.97 (Vinyl Acetate)	1.84 (Vinyl Acetate)	0.59 (Hexane)	0.00	9.35 (Vinyl Acetate)

Total emissions based on rated capacity at 8,760 hours/year, after control.

*Printing Presses AIG-002, 004, 005, 006, 007, 008, 009 and 010 are controlled by three Oxidizers (TAB-1, TAB-2 and TAB-3; installed in parallel) with destruction efficiency of 95%.

Appendix A: Emission Calculations
VOC From Printing Press Operations

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

AIG-002

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

Press I.D.	Maximum Line Speed (ft/min)	Convert Feet to Inches	Maximum Print Width (in)	60 Min/ Hour	8,760 HR YEAR	1/1,000,000	Potential MMin²/Year
AIG-002	1,080	12	25.0	60	8,760	1,000,000	170,294

PRINTING VOC:

Ink Name	Maximum Coverage lbs/MMin²	Weight % VOC	Flash Off %	Potential Throughput MMin²/Year	Tons/ 2,000 lbs	VOC Pounds per Hour	Potential VOC Tons per Year
AIG-002 Ink	1.025	36.80%	80%	170,294	2,000	5.87	25.69
AIG-002 Glue	0.238	59.00%	100%	170,294	2,000	2.73	11.96
AIG-002 Fountain Solution	4.210	2.22%	100%	170,294	2,000	1.82	7.96
AIG-002 Cleaning Solution	0.079	100.00%	50%	170,294	2,000	0.77	3.36
Total Potential Uncontrolled Emissions:						**11.18**	**48.97**

Press I.D.	Control Device	Capture System Capture Efficiency	Uncaptured (tpy)		Thermal Oxidizer Destruction Efficiency	Controlled/Limited VOC Pounds per Hour	Controlled/Limited VOC Tons per Year
AIG-002 Ink	Thermal Oxidizer	100.00%	0.00		95.00%	0.29	1.28
AIG-002 Glue	Thermal Oxidizer	100.00%	0.00		95.00%	0.136	0.598
AIG-002 Fountain Solution	Thermal Oxidizer	70.00%	2.39		95.00%	0.064	0.279
AIG-002 Cleaning Solution	Thermal Oxidizer	0.00%	3.36		95.00%	0.00	0.00
Total Uncaptured emissions			**5.75**				
Total Controlled Emissions:						**0.49**	**2.16**
Total Emissions (tpy):	**7.91**						

Notes: Printing operations are mutually exclusive of cleaning operations. Fountain Solution is diluted 4 oz to 128 oz water for working solution including NPA additive per manufacturer utilization rate.

Methodology:
Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year
VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year
Uncaptured VOC emissions = Potential VOC emissions (tons/yr)*(1-Capture Efficiency)
Controlled VOC Emissions = Potential VOC Emissions (tons/yr)*Capture Efficiency * (1 - Destruction Efficiency)
Flash Off %: represents amount of initial VOCs that are available for capture.

Appendix A: Emission Calculations
VOC From Printing Press Operations

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

AIG-004

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

Press I.D.	No. of Rollers	Maximum Line Speed (ft/min)	Convert Feet to Inches	Maximum Print Width (in)	60 Min/ Hour	8,760 HR YEAR	1/1,000,000	Potential MMin²/Year
AIG-004	2	1,400	12	36.0	60	8,760	1,000,000	635,766

PRINTING VOC:

Ink Name		Maximum Coverage lbs/MMin²	Weight % VOC	Flash Off %	Potential Throughput MMin²/Year	Tons/ 2,000 lbs	VOC Pounds per Hour	Potential VOC Tons per Year
AIG-004 Ink		1.000	36.80%	80%	635,766	2,000	21.37	93.58
AIG-004 Fountain Solution		0.500	2.22%	100%	635,766	2,000	0.81	3.53
AIG-004 Misc Products		3.000	1.00%	100%	635,766	2,000	2.18	9.54
AIG-004 Cleaning Solution		0.039	100.00%	50%	635,766	2,000	1.42	6.20
Total Potential Uncontrolled Emissions:							**25.76**	**112.85**

Press I.D.		Control Device	Capture System Capture Efficiency	Uncaptured (tpy)		Thermal Oxidizer Destruction Efficiency	Controlled/Limited VOC Pounds per Hour	Controlled/Limited VOC Tons per Year
AIG-004 Ink		Thermal Oxidizer	100.00%	0.00		95.00%	1.07	4.68
AIG-004 Fountain Solution		Thermal Oxidizer	70.00%	1.06		95.00%	0.028	0.123
AIG-004 Misc Products		Thermal Oxidizer	0.00%	9.54		95.00%	0.00	0.00
AIG-004 Cleaning Solution		Thermal Oxidizer	0.00%	6.20		95.00%	0.00	0.00
Total Uncaptured emissions				**16.79**				
Total Controlled Emissions:							**1.10**	**4.80**

Total Emissions (tpy): **21.60**

Notes: Printing operations are mutually exclusive of cleaning operations. Fountain Solutions diluted 4 oz to 128 oz water for working solution including NPA additive per manufacturer utilization rate.

Methodology:
Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year
VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year
Uncaptured VOC emissions = Potential VOC emissions (tons/yr)*(1-Capture Efficiency)
Flash Off %: represents amount of initial VOCs that are available for capture.
Controlled VOC Emissions = Potential VOC Emissions (tons/yr)*Capture Efficiency * (1 - Destruction Efficiency)

Appendix A: Emission Calculations
VOC From Printing Press Operations

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

AIG-005

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

Press I.D.	No. of Rollers	Maximum Line Speed (ft/min)	Convert Feet to Inches	Maximum Print Width (in)	60 Min/ Hour	8,760 HR YEAR	1/1,000,000	Potential MMin²/Year
AIG-005	2	1,200	12	50.0	60	8,760	1,000,000	756,864

PRINTING VOC:

Ink Name		Maximum Coverage lbs/MMin²	Weight % VOC	Flash Off %	Potential Throughput MMin²/Year	Tons/ 2,000 lbs	VOC Pounds per Hour	Potential VOC Tons per Year
AIG-005 Ink		1.000	36.80%	80%	756,864	2,000	25.44	111.41
AIG-005 Fountain Solution		0.500	2.22%	100%	756,864	2,000	0.96	4.20
AIG-005 Misc Products		3.000	1.00%	100%	756,864	2,000	2.59	11.35
AIG-005 Cleaning Solution		0.032	100.00%	50%	756,864	2,000	1.38	6.05
Total Potential Uncontrolled Emissions:							**30.37**	**133.02**

Press I.D.		Control Device	Capture System Capture Efficiency	Uncaptured (tpy)		Thermal Oxidizer Destruction Efficiency	Controlled/Limited VOC Pounds per Hour	Controlled/Limited VOC Tons per Year
AIG- 005 Ink		Thermal Oxidizer	100.00%	0.00		95.00%	1.27	5.57
AIG-005 Fountain Solution		Thermal Oxidizer	70.00%	1.26		95.00%	0.034	0.147
AIG-005 Misc Products		Thermal Oxidizer	0.00%	11.35		95.00%	0.00	0.00
AIG-005 Cleaning Solution		Thermal Oxidizer	0.00%	6.05		95.00%	0.00	0.00
Total Uncaptured emissions				**18.67**				
Total Controlled Emissions:							**1.31**	**5.72**

Total Emissions (tpy): **24.39**

Notes: Printing operations are mutually exclusive of cleaning operations. Fountain Solutions diluted 4 oz to 128 oz water for working solution including NPA additive per manufacturer utilization rate.

Methodology:
Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year
VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year
Uncaptured VOC emissions = Potential VOC emissions (tons/yr)*(1-Capture Efficiency)
Flash Off %: represents amount of initial VOCs that are available for capture.
Controlled VOC Emissions = Potential VOC Emissions (tons/yr)*Capture Efficiency * (1 - Destruction Efficiency)

Appendix A: Emission Calculations
VOC From Printing Press Operations

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

AIG-006

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

Press I.D.	Maximum Line Speed (ft/min)	Convert Feet to Inches	Maximum Print Width (in)	60 Min/ Hour	8,760 HR YEAR	1/1,000,000	Potential MMin²/Year
AIG-006	1,400	12	38.0	60	8,760	1,000,000	335,543

PRINTING VOC:

Ink Name	Maximum Coverage lbs/MMin²	Weight % VOC	Flash Off %	Potential Throughput MMin²/Year	Tons/ 2,000 lbs	VOC Pounds per Hour	Potential VOC Tons per Year
AIG-006 Ink	1.000	36.80%	80%	335,543	2,000	11.28	49.39
AIG-006 Fountain Solution	0.500	2.22%	100%	335,543	2,000	0.43	1.86
AIG-006 Misc Products	3.000	1.00%	100%	335,543	2,000	1.15	5.03
AIG-006 Cleaning Solution	0.012	100.00%	50%	335,543	2,000	0.23	1.01
Total Potential Uncontrolled Emissions:						**13.08**	**57.29**

Press I.D.	Control Device	Capture System Capture Efficiency	Uncaptured (tpy)		Thermal Oxidizer Destruction Efficiency	Controlled/Limited VOC Pounds per Hour	Controlled/Limited VOC Tons per Year
AIG-006 Ink	Thermal Oxidizer	100.00%	0.00		95.00%	0.56	2.47
AIG-006 Fountain Solution	Thermal Oxidizer	70.00%	0.56		95.00%	0.015	0.065
AIG-006 Misc Products	Thermal Oxidizer	0.00%	5.03		95.00%	0.00	0.00
AIG-006 Cleaning Solution	Thermal Oxidizer	0.00%	1.01		95.00%	0.00	0.00
Total Uncaptured emissions			**6.60**				
Total Controlled Emissions:						**0.58**	**2.53**
Total Emissions (tpy):	**9.13**						

Notes: Printing operations are mutually exclusive of cleaning operations. Fountain Solutions diluted 4 oz to 128 oz water for working solution including NPA additive per manufacturer utilization rate.

Methodology:
Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year
VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year
Uncaptured VOC emissions = Potential VOC emissions (tons/yr)*(1-Capture Efficiency)
Controlled VOC Emissions = Potential VOC Emissions (tons/yr)*Capture Efficiency * (1 - Destruction Efficiency)

Appendix A: Emission Calculations
VOC From Printing Press Operations

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

AIG-007

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

Press I.D.	Maximum Line Speed (ft/min)	Convert Feet to Inches	Maximum Print Width (in)	60 Min/ Hour	8,760 HR YEAR	1/1,000,000	Potential MMin²/Year
AIG-007	1,400	12	38.0	60	8,760	1,000,000	335,543

PRINTING VOC:

Ink Name	Maximum Coverage lbs/MMin²	Weight % VOC	Flash Off %	Potential Throughput MMin²/Year	Tons/ 2,000 lbs	VOC Pounds per Hour	Potential VOC Tons per Year
AIG-007 Ink	1.000	36.80%	80%	335,543	2,000	11.28	49.39
AIG-007 Fountain Solution	0.500	2.22%	100%	335,543	2,000	0.43	1.86
AIG-007 Misc Products	3.000	1.00%	100%	335,543	2,000	1.15	5.03
AIG-007 Cleaning Solution	0.012	100.00%	50%	335,543	2,000	0.23	1.01
Total Potential Uncontrolled Emissions:						**13.08**	**57.29**

Press I.D.	Control Device	Capture System Capture Efficiency	Uncaptured (tpy)		Thermal Oxidizer Destruction Efficiency	Controlled/Limited VOC Pounds per Hour	Controlled/Limited VOC Tons per Year
AIG-007Ink	Thermal Oxidizer	100.00%	0.00		95.00%	0.56	2.47
AIG-007 Fountain Solution	Thermal Oxidizer	70.00%	0.56		95.00%	0.015	0.065
AIG-007 Non-Maintenance Products	Thermal Oxidizer	0.00%	5.03		95.00%	0.00	0.00
AIG-007 Cleaning Solution	Thermal Oxidizer	0.00%	1.01		95.00%	0.00	0.00
Total Uncaptured emissions			**6.60**				
Total Controlled Emissions:						**0.58**	**2.53**

Total Emissions (tpy): **9.13**

Notes: Printing operations are mutually exclusive of cleaning operations. Fountain Solutions diluted 4 oz to 128 oz water for working solution including NPA additive per manufacturer utilization rate.

Methodology:
Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year
VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year
Uncaptured VOC emissions = Potential VOC emissions (tons/yr)*(1-Capture Efficiency)
Flash Off %: represents amount of initial VOCs that are available for capture.
Controlled VOC Emissions = Potential VOC Emissions (tons/yr)*Capture Efficiency * (1 - Destruction Efficiency)

Appendix A: Emission Calculations
VOC From Printing Press Operations

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 18-Jun-07

AIG-008

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

Press I.D.	No. of Rollers	Maximum Line Speed	Convert Feet to	Maximum Print Width	60 Min/	8,760 HR	1/1,000,000	Potential MMin²/Year
		Speed (ft/min)	Inches	(in)	Hour	YEAR		
AIG-008	2	1,400	12	38.0	60	8,760	1,000,000	671,086

PRINTING VOC:

Ink Name		Maximum Coverage	Weight % VOC	Flash Off %	Potential Throughput	Tons/	VOC Pounds per Hour	Potential
		lbs/MMin²			MMin²/Year	2,000 lbs		VOC Tons per Year
AIG-008 Ink		1.000	36.80%	80%	671,086	2,000	22.55	98.78
AIG-008 Fountain Solution		0.500	2.22%	100%	671,086	2,000	0.85	3.72
AIG-008 Misc Products		3.000	1.00%	100%	671,086	2,000	2.30	10.07
AIG-008 Cleaning Solution		0.012	100.00%	50%	671,086	2,000	0.46	2.01
Total Potential Uncontrolled Emissions:							**26.16**	**114.59**

Controlled Emissions:

Press I.D.		Control Device	Capture System	Uncaptured		Thermal Oxidizer	Controlled/Limited VOC	Controlled/Limited VOC
			Capture Efficiency	(tpy)		Destruction Efficiency	Pounds per Hour	Tons per Year
AIG-008Ink		Thermal Oxidizer	100.00%	0.00		95.00%	1.13	4.94
AIG-008 Fountain Solution		Thermal Oxidizer	70.00%	1.12		95.00%	0.030	0.130
AIG-008 Misc Products		Thermal Oxidizer	0.00%	10.07		95.00%	0.00	0.00
AIG-008 Cleaning Solution		Thermal Oxidizer	0.00%	2.01		95.00%	0.00	0.00
Total Uncaptured emissions				**13.20**				
Total Controlled Emissions:							**1.16**	**5.07**
Total Emissions (tpy):		**18.27**						

Notes: Printing operations are mutually exclusive of cleaning operations. Fountain Solutions diluted 4 oz to 128 oz water for working solution including NPA additive per manufacturer utilization rate.

Methodology:
Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year
VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year
Uncaptured VOC emissions = Potential VOC emissions (tons/yr)*(1-Capture Efficiency)
Flash Off %: represents amount of initial VOCs that are available for capture.
Controlled VOC Emissions = Potential VOC Emissions (tons/yr)*Capture Efficiency * (1 - Destruction Efficiency)

Appendix A: Emission Calculations
VOC From Printing Press Operations

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

AIG-009

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

Press I.D.	Maximum Line Speed (ft/min)	Convert Feet to Inches	Maximum Print Width (in)	60 Min/ Hour	8,760 HR YEAR	1/1,000,000	Potential MMin²/Year
AIG-009	1,800	12	38.0	60	8,760	1,000,000	431,412

PRINTING VOC:

Ink Name	Maximum Coverage lbs/MMin²	Weight % VOC	Flash Off %	Potential Throughput MMin²/Year	Tons/ 2,000 lbs	VOC Pounds per Hour	Potential VOC Tons per Year
AIG-009 Ink	2.250	36.80%	80%	431,412	2,000	32.62	142.88
AIG-009 Fountain Solution	0.132	2.22%	100%	431,412	2,000	0.14	0.63
AIG-009 Misc Materials	1.001	1.01%	100%	431,412	2,000	0.50	2.18
AIG-009 Cleaning Solution	0.054	100.00%	50%	431,412	2,000	1.33	5.82
Total Potential Uncontrolled Emissions:						**34.59**	**151.52**

Press I.D.	Control Device	Capture System Capture Efficiency	Uncaptured (tpy)		Thermal Oxidizer Destruction Efficiency	Controlled/Limited VOC Pounds per Hour	Controlled/Limited VOC Tons per Year
AIG-009 Ink	Thermal Oxidizer	100.00%	0.00		95.00%	1.63	7.14
AIG-009 Fountain Solution	Thermal Oxidizer	70.00%	0.19		95.00%	0.005	0.022
AIG-009 Miscellanous Materials	Thermal Oxidizer	0.00%	2.18		95.00%	0.00	0.00
AIG-009 Cleaning Solution	Thermal Oxidizer	0.00%	5.82		95.00%	0.00	0.00
Total Uncaptured emissions			**8.19**				
Total Controlled Emissions:						**1.64**	**7.17**

Total Emissions (tpy): **15.36**

Notes: Printing operations are mutually exclusive of cleaning operations. Fountain Solutions diluted 4 oz to 128 oz water for working solution including NPA additive per manufacturer utilization rate.

Methodology:
Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year
VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year
Uncaptured VOC emissions = Potential VOC emissions (tons/yr)*(1-Capture Efficiency)
Flash Off %: represents amount of initial VOCs that are available for capture.
Controlled VOC Emissions = Potential VOC Emissions (tons/yr)*Capture Efficiency * (1 - Destruction Efficiency)

Appendix A: Emission Calculations
VOC From Printing Press Operations

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

AIG-010

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

Press I.D.	No. of Rollers	Maximum Line Speed (ft/min)	Convert Feet to Inches	Maximum Print Width (in)	60 Min/ Hour	8,760 HR YEAR	1/1,000,000	Potential MMin²/Year
AIG-010	2	1,800	12	36.0	60	8,760	1,000,000	817,413

PRINTING VOC:

Ink Name		Maximum Coverage lbs/MMin²	Weight % VOC	Flash Off %	Potential Throughput MMin²/Year	Tons/ 2,000 lbs	VOC Pounds per Hour	Potential VOC Tons per Year
AIG-010 Ink		2.250	36.80%	80%	817,413	2,000	61.81	270.73
AIG-010 Fountain Solution		0.176	2.22%	100%	817,413	2,000	0.36	1.60
AIG-010 Misc Materials		1.001	1.01%	100%	817,413	2,000	0.94	4.13
AIG-010 Cleaning Solution		0.036	100.00%	50%	817,413	2,000	1.68	7.36
Total Potential Uncontrolled Emissions:							**64.80**	**283.81**

Press I.D.		Control Device	Capture System Capture Efficiency	Uncaptured (tpy)		Thermal Oxidizer Destruction Efficiency	Controlled/Limited VOC Pounds per Hour	Controlled/Limited VOC Tons per Year
AIG-010 Ink		Thermal Oxidizer	100.00%	0.00		95.00%	3.09	13.54
AIG-010 Fountain Solution		Thermal Oxidizer	70.00%	0.48		95.00%	0.013	0.056
AIG-010 Miscellanous Materials		Thermal Oxidizer	0.00%	4.13		95.00%	0.00	0.00
AIG-010 Cleaning Solution		Thermal Oxidizer	0.00%	7.36		95.00%	0.00	0.00
Total Uncaptured emissions				**11.97**				
Total Controlled Emissions:							**3.10**	**13.59**

Total Emissions (tpy): **25.56**

Notes: Printing operations are mutually exclusive of cleaning operations. Fountain Solutions diluted 4 oz to 128 oz water for working solution including NPA additive per manufacturer utilization rate.

Methodology:
Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year
VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year
Uncaptured VOC emissions = Potential VOC emissions (tons/yr)*(1-Capture Efficiency)
Flash Off %: represents amount of initial VOCs that are available for capture.
Controlled VOC Emissions = Potential VOC Emissions (tons/yr)*Capture Efficiency * (1 - Destruction Efficiency)

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

UNCONTROLLED POTENTIAL EMISSIONS

Press AIG-002, 004, 005 and 006

Material	Press ID	Maximum Printing Throughput (MMin^2/yr)	Maximum or Equivalent Coverage (lbs/MMin^2)	Weight % Glycol Ethers	Weight % Ethylene Glycol	Weight % Xylene	Weight % Cumene	Weight % Naphthalene	Weight % Vinyl Acetate	Glycol Ethers Emissions (ton/yr)	Ethylene Glycol Emissions (ton/yr)	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Vinyl Acetate Emissions (ton/yr)	Total (tons/yr)
AIG 002 Ink	AIG-002	170,294	1.025	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-002 Fountain Solution	AIG-002	170,294	4.210	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	1.18	3.48	0.00	0.00	0.00	0.00	4.66
AIG-002 Misc Products	AIG-002	170,294	1.001	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	0.38	0.38
AIG-002 Cleaning Solution	AIG-002	170,294	0.079	0.00%	0.00%	1.20%	0.80%	0.04%	0.00%	0.00	0.00	0.08	0.05	0.00	0.00	0.14
AIG-004 Ink	AIG-004	635,766	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-004 Fountain Solution	AIG-004	635,766	0.500	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.52	1.54	0.00	0.00	0.00	0.00	2.07
AIG-004 Misc Products	AIG-004	635,766	1.001	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	1.43	1.43
AIG-004 Cleaning Solution	AIG-004	635,766	0.039	0.00%	0.00%	1.20%	0.80%	0.04%	0.00%	0.00	0.00	0.15	0.10	0.00	0.00	0.25
AIG-005 Ink	AIG-005	756,864	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-005 Fountain Solution	AIG-005	756,864	0.500	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.62	1.84	0.00	0.00	0.00	0.00	2.46
AIG-005 Misc Products	AIG-005	756,864	1.001	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	1.70	1.70
AIG-005 Cleaning Solution	AIG-005	756,864	0.032	0.00%	0.00%	1.20%	0.80%	0.04%	0.00%	0.00	0.00	0.15	0.10	0.00	0.00	0.25
AIG-006 Ink	AIG-006	335,543	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-006 Fountain Solution	AIG-006	335,543	0.500	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.28	0.81	0.00	0.00	0.00	0.00	1.09
AIG-006 Misc Products	AIG-006	335,543	1.001	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	0.76	0.76
AIG-006 Cleaning Solution	AIG-006	335,543	0.046	0.00%	0.00%	1.20%	0.80%	0.04%	0.00%	0.00	0.00	0.09	0.06	0.00	0.00	0.16
									Total Uncontrolled Potential Emissions	**2.61**	**7.67**	**0.47**	**0.31**	**0.02**	**4.28**	

TOTAL UNCONTROLLED HAPS **11.07**

Methodology:

HAPS emission rate (tons/yr) = Max. Throughput (MMin^2/yr) * Max. Coverage (lbs/MMin^2) * Wt. % HAP * (1 ton/2000 lbs)

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

UNCONTROLLED POTENTIAL EMISSIONS

Press AIG-007, AIG- 008, AIG-009 and AIG-010

Material	Press ID	Maximum Printing Throughput (MMin^2/yr)	Maximum or Equivalent Coverage (lbs/MMin^2)	Weight % Glycol Ethers	Weight% Ethylene Glycol	Weight % Xylene	Weight % Cumene	Weight % Naphthalene	Weight % Vinyl Acetate	Glycol Ether Emissions (ton/yr)	Ethylene Glycol Emissions (ton/yr)	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Vinyl Acetate Emissions (ton/yr)	Total (tons/yr)
AIG-007 Ink	AIG-007	335,543	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-007 Fountain Solution	AIG-007	335,543	0.500	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.28	0.81	0.00	0.00	0.00	0.00	1.09
AIG-007 Misc Products	AIG-007	335,543	1.001	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	0.76	0.76
AIG-007 Cleaning Solution	AIG-007	335,543	0.012	0.00%	0.00%	1.20%	0.80%	0.04%	0.00%	0.00	0.00	0.02	0.02	0.00	0.00	0.04
AIG-008 Ink	AIG-008	671,086	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-008 Fountain Solution	AIG-008	671,086	0.500	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.55	1.63	0.00	0.00	0.00	0.00	2.18
AIG-008 Misc Products	AIG-008	671,086	1.001	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	1.51	1.51
AIG-008 Cleaning Solution	AIG-008	671,086	0.012	0.00%	0.00%	1.20%	0.80%	0.04%	0.00%	0.00	0.00	0.05	0.03	0.00	0.00	0.08
AIG-009 Ink	AIG-009	431,412	2.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-009 Fountain Solution	AIG-009	431,412	0.132	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.09	0.28	0.00	0.00	0.00	0.00	0.37
AIG-009 Misc Products	AIG-009	431,412	1.001	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	0.97	0.97
AIG-009 Cleaning Solution	AIG-009	431,412	0.054	0.00%	0.00%	1.20%	0.80%	0.04%	0.00%	0.00	0.00	0.14	0.09	0.00	0.00	0.24
AIG-010 Ink	AIG-010	817,413	2.250	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-010 Fountain Solution	AIG-010	817,413	0.176	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.24	0.70	0.00	0.00	0.00	0.00	0.94
AIG-010 Misc Products	AIG-010	817,413	1.001	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	1.84	1.84
AIG-010 Cleaning Solution	AIG-010	817,413	0.036	0.00%	0.00%	1.20%	0.80%	0.04%	0.00%	0.00	0.00	0.18	0.12	0.01	0.00	0.30
									Total Uncontrolled Potential Emissions	**1.16**	**3.42**	**0.39**	**0.26**	**0.01**	**5.08**	

TOTAL UNCONTROLLED HAPS **10.32**

Note:
Printing and cleaning operations are mutually exclusive of one another

Methodology:
HAPS emission rate (tons/yr) = Max. Throughput (MMin^2/yr) * Max. Coverage (lbs/MMin^2) * Wt. % HAP * (1 ton/2000 lbs)

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

CONTROLLED POTENTIAL EMISSIONS
Presses AIG-002,AIG-004, AIG-05 and AIG-006

Material	Press ID	Maximum Printing Throughput (MMin^2/yr)	Maximum or Equivalent Coverage (lbs/MMin^2)	Retention %	Capture System Collection Efficiency (%)	Thermal Oxidizer Destruction Efficiency (%)	Weight % Glycol Ethers	Weight % Ethylene Glycol	Weight % Xylene	Weight % Cumene	Weight % Naphthalene	Weight % Vinyl Acetate	Glycol Ethers Emissions (ton/yr)	Ethylene Glycol Emissions (ton/yr)	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Vinyl Acetate Emissions (ton/yr)	Total (tons/yr)
AIG 002 Ink	AIG-002	170,294	1.025	20.0%	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-002 Fountain Solution	AIG-002	170,294	4.210	0.0%	70.00%	95.00%	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.40	0.00	0.00	0.00	0.00	0.00	0.40
AIG-002 Misc Products	AIG-002	170,294	1.001	0.0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-002 Cleaning Solution	AIG-002	170,294	0.079	50.0%	0.00%	0.00%	0.00%	0.00%	1.20%	0.80%	0.04%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-004 Ink	AIG-004	635,766	1.000	20.0%	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-004 Fountain Solution	AIG-004	635,766	0.500	0.0%	70.00%	95.00%	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.18	0.00	0.00	0.00	0.00	0.00	0.18
AIG-004 Misc Products	AIG-004	635,766	1.001	0.0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-004 Cleaning Solution	AIG-004	635,766	0.039	50.0%	0.00%	0.00%	0.00%	0.00%	1.20%	0.80%	0.04%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-005 Ink	AIG-005	756,864	1.000	20.0%	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-005 Fountain Solution	AIG-005	756,864	0.500	0.0%	70.00%	95.00%	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.21	0.00	0.00	0.00	0.00	0.00	0.21
AIG-005 Misc Products	AIG-005	756,864	1.001	0.0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-005 Cleaning Solution	AIG-005	756,864	0.032	50.0%	0.00%	0.00%	0.00%	0.00%	1.20%	0.80%	0.04%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-006 Ink	AIG-006	335,543	1.000	20.0%	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-006 Fountain Solution	AIG-006	335,543	0.500	0.0%	70.00%	95.00%	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.09	0.00	0.00	0.00	0.00	0.00	0.09
AIG-006 Misc Products	AIG-006	335,543	1.001	0.0%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-006 Cleaning Solution	AIG-006	335,543	0.032	50.0%	0.00%	0.00%	0.00%	0.00%	1.20%	0.80%	0.04%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												Total Controlled Potential Emissions	**0.87**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	

Methodology:

TOTAL CONTROLLED HAPS **0.87**

HAPS emission rate (tons/yr) = Max. Throughput (MMin^2/yr) * Max. Coverage (lbs/MMin^2) * Wt. % HAP * (1 ton/2000 lbs) * (1-Destruction Efficiency)*(1-Retention)*Capture Efficiency
Fountain Solution (FS) is diluted 4 oz to 1 gal water: VOC of as used FS=(128.6g FS*38 wt% VOC)/3914g solution total=1.25 wt% VOC*26.3 wt%=0.33 wt% Glycol Ethers
NonPiling Additive (NPA) is incorporated at 2 oz NPA per 1 gal of as used FS: (59.15cm3*1.07g/cm3)*60 wt% Ethylene Glycol/(63.29+3785)=0.97% Ethylene Glycol [assuming density of as used FS is one]
Collection Efficiency is not applicable (NA) to misc product and manual cleaning solutions: VOC emissions are into pressroom building which is an enclosure not certified by EPA method 204

Appendix A: Emission Calculations
HAP Emission Calculations

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

CONTROLLED POTENTIAL EMISSIONS

Presses AIG-007, AIG-008, AIG-009 and AIG-010

Material	Press ID	Maximum Printing Throughput (MMin^2/yr)	Maximum or Equivalent Coverage (lbs/MMin^2)	Retention (%)	Capture System Collection Efficiency (%)	Thermal Oxidizer Destruction Efficiency (%)	Weight % Glycol Ethers	Weight % Ethylene Glycol	Weight % Xylene	Weight % Cumene	Weight % Naphthalene	Weight % Vinyl Acetate	Glycol Emissions (ton/yr)	Ethylene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Vinyl Acetate Emissions (ton/yr)	Total (tons/yr)
AIG-007 Ink	AIG-007	335,543	1.000	20.00%	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-007 Fountain Soln	AIG-007	335,543	0.500	0.00%	70.00%	95.00%	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.01	0.03	0.00	0.00	0.00	0.00	0.04
AIG-007 Misc Products	AIG-007	335,543	1.001	0.00%	NA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	0.76	0.76
AIG-007 Cleaning Soln	AIG-007	335,543	0.012	50.00%	NA	0.00%	0.00%	0.00%	1.20%	0.80%	0.04%	0.01%	0.00	0.00	0.01	0.01	0.00	0.00	0.02
AIG-008 Ink	AIG-008	671,086	1.000	20.00%	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-008 Fountain Soln	AIG-008	671,086	0.500	0.00%	70.00%	95.00%	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.02	0.06	0.00	0.00	0.00	0.00	0.08
AIG-008 Misc Products	AIG-008	671,086	1.001	0.00%	NA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	1.51	1.51
AIG-008 Cleaning Soln	AIG-008	671,086	0.012	50.00%	NA	0.00%	0.00%	0.00%	1.20%	0.80%	0.04%	0.01%	0.00	0.00	0.02	0.02	0.00	0.00	0.04
AIG-009 Ink	AIG-009	431,412	2.250	20.00%	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-009 Fountain Soln	AIG-009	431,412	0.132	0.00%	70.00%	95.00%	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.00	0.01	0.00	0.00	0.00	0.00	0.01
AIG-009 Misc Products	AIG-009	431,412	1.001	0.00%	NA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	0.97	0.97
AIG-009 Cleaning Soln	AIG-009	431,412	0.054	50.00%	NA	0.00%	0.00%	0.00%	1.20%	0.80%	0.04%	0.00%	0.00	0.00	0.07	0.05	0.00	0.00	0.12
AIG-010 Ink	AIG-010	817,413	2.250	20.00%	100.00%	95.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AIG-010 Fountain Soln	AIG-010	817,413	0.176	0.00%	70.00%	95.00%	0.33%	0.97%	0.00%	0.00%	0.00%	0.00%	0.01	0.02	0.00	0.00	0.00	0.00	0.03
AIG-010 Misc Products	AIG-010	817,413	1.001	0.00%	NA	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.45%	0.00	0.00	0.00	0.00	0.00	1.84	1.84
AIG-010 Cleaning Soln	AIG-010	817,413	0.036	50.00%	NA	0.00%	0.00%	0.00%	1.20%	0.80%	0.04%	0.00%	0.00	0.00	0.09	0.06	0.00	0.00	0.15
Total Controlled Potential Emissions													**0.04**	**0.12**	**0.19**	**0.13**	**0.01**	**5.08**	

Methodology:

TOTAL CONTROLLED HAPS **5.57**

HAPS emission rate (tons/yr) = Max. Throughput (MMin^2/yr) * Max. Coverage (lbs/MMin^2) * Wt. % HAP * (1 ton/2000 lbs) * (1-Destruction Efficiency)*(1-Retention)*Capture Efficiency

As supplied Fountain Solution (FS) is diluted 4 oz to 1 gal water: VOC of as used FS=(128.6g FS*38 wt% VOC)/3914g solution total=1.25 wt% VOC*26.3 wt%=0.33 wt% Glycol Ethers

NonPiling Additive (NPA) is incorporated at 2 oz NPA per 1 gal of as used FS: (59.15cm3*1.07g/cm3)*60 wt% Ethylene Glycol /(63.29+3785)=0.97% Ethylene Glycol [assuming density of as used FS is one]

Collection Efficiency is not applicable (NA) to misc product and manual cleaning solutions: VOC emissions are into pressroom building which is an enclosure not certified by EPA method 204

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

UNCAPTURED POTENTIAL EMISSIONS

Presses AIG-007, AIG-008, AIG-009 and AIG-010

Material	Press ID	Maximum Printing Throughput (MMin^2/yr)	Maximum or Equivalent Coverage (lbs/MMin^2)	Retention (%)	Capture System Collection Efficiency (%)	Weight % Glycol Ethers	Weight % Xylene	Weight % Cumene	Weight % Naphthalene	Weight % Vinyl Acetate	Glycol Ethers Emissions (ton/yr)	Xylene Emissions (ton/yr)	Cumene Emissions (ton/yr)	Naphthalene Emissions (ton/yr)	Vinyl Acetate Emissions (ton/yr)	Total (tons/yr)
AIG-007 Ink	AIG-007	335,543	1.000	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
AIG-007 Fountain Solution	AIG-007	335,543	0.500	0.00%	70.00%	0.36%	0.00%	0.00%	0.00%	0.00%	0.09	0.00	0.00	0.00	0.00	0.09
AIG-007 Non-Maintenance Products	AIG-007	335,543	3.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
AIG-007 Auto and Manual Cleaning Solutio	AIG-007	335,543	0.012	0.00%	40.00%	0.00%	2.00%	2.00%	2.00%	0.01%	0.00	0.02	0.02	0.02	0.00	0.07
AIG-008 Ink	AIG-008	335,543	1.000	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
AIG-008 Fountain Solution	AIG-008	335,543	0.500	0.00%	70.00%	10.00%	0.00%	0.00%	0.00%	0.00%	2.52	0.00	0.00	0.00	0.00	2.52
AIG-008 Silicone Solution	AIG-008	335,543	0.200	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.50%	0.00	0.00	0.00	0.00	0.17	0.17
AIG-008 Non-Maintenance Products	AIG-008	335,543	3.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
AIG-008 Auto and Manual Cleaning Solutio	AIG-008	335,543	0.012	0.00%	40.00%	0.00%	2.00%	2.00%	2.00%	0.01%	0.00	0.02	0.02	0.02	0.00	0.07
AIG-009 Ink	AIG-009	431,412	2.250	20.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
AIG-009 Fountain Solution Concentrate	AIG-009	431,412	0.132	0.00%	70.00%	7.00%	0.00%	0.00%	0.00%	0.00%	0.60	0.00	0.00	0.00	0.00	0.60
AIG-009 Manual Blanket Wash	AIG-009	431,412	0.054	50.00%	0.00%	0.00%	1.50%	5.00%	0.00%	0.00%	0.00	0.17	0.58	0.00	0.00	0.76
AIG-009 Miscellaneous Materials	AIG-009	431,412	1.001	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.49%	0.00	0.00	0.00	0.00	1.06	1.06
AIG-010 Ink	AIG-010	817,413	2.250	20.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
AIG-010 Fountain Solution Concentrate	AIG-010	817,413	0.176	0.00%	70.00%	7.00%	0.00%	0.00%	0.00%	0.00%	1.51	0.00	0.00	0.00	0.00	1.51
AIG-010 Manual Blanket Wash	AIG-010	817,413	0.036	50.00%	0.00%	0.00%	1.50%	5.00%	0.00%	0.00%	0.00	0.22	0.74	0.00	0.00	0.96
AIG-010 Miscellaneous Materials	AIG-010	817,413	1.001	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.49%	0.00	0.00	0.00	0.00	2.00	2.00
							Total Uncaptured Potential Emissions				**4.72**	**0.44**	**1.37**	**0.05**	**3.23**	

TOTAL UNCAPTURED HAPS **9.80**

Methodology:

HAPS emission rate (tons/yr) = Max. Throughput (MMin^2/yr) * Max. Coverage (lbs/MMin^2) * Wt. % HAP * (1 ton/2000 lbs) * (1-Capture Efficiency)*(1-Retention)

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

Insignificant Activities: Operations emitting less than 15 lbs/day of VOC:

1) Operation: Film Wash
Throughput maximum: 637.5 gal/yr (@5.49 lb VOC/gal, based on 8760 hr/yr)

637.5 gal/yr x (5.49lb/gal) x (1 ton/2000 lb) = **1.75 tons VOC/yr**

2) Operation: Ink Jets
Throughput maximum: 860 lb/yr (@ 4.34 wt. % VOC, based on 8760 hr/yr)

860 lb/yr x (0.0434) x (1 ton/2000 lb) = **0.02 tons VOC/yr**

3) Operation: Plate Processor - Developer
Throughput maximum: 4,214 lb/yr (@ 1.30 wt. % VOC, based on 8760 hr/yr)

4,214 lb/yr x (0.013) x (1 ton/2000 lb) = **0.03 tons VOC/yr**

4) Operation: Plate Processor - Finisher
Throughput maximum: 2,356 lb/yr (@ 0.90 wt. % VOC, based on 8760 hr/yr)

2,356 lb/yr x (0.009) x (1 ton/2000 lb) = **0.01 tons VOC/yr**

5) Operation: Ink Jets
Throughput maximum: 730 lb/yr (@ 8.25 wt. % VOC, based on 8760 hr/yr)

730 lb/yr x (0.0825) x (1 ton/2000 lb) = **0.03 tons VOC/yr**

Insignificant Activity Emissions

Pollutant Pollutant

	Film Wash	Ink Jets	Plate Developer	Plate Finisher	Glass Cleaner	Total
VOC	1.75	0.02	0.03	0.01	0.03	1.84

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg
Date: 3-Jul-07

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
74.9	655.9

Facilities	**MMBtu/hr**
One (1) Thermal Oxidizer (TAB-1)	0.70
One (1) Thermal Oxidizer (TAB-2)	1.98
One (1) Thermal Oxidizer (TAB-3)	9.00
Two (2) dryers, each rated at 4.0 MMBtu/hr	8.00
Two (2) dryers, each rated at 6.0 MMBtu/hr	12.00
Two (2) dryers, each rated at 7.0 MMBtu/hr	14.00
Three (3) TEC dryers, each rated at 8.0 MMBtu/hr	24.00
One (1) Heater	2.20
Ten (10) Heaters, each rated at 0.30 MMBtu/hr	3.00
Total	**74.88**

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.62	2.49	0.20	32.80	1.80	27.55

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM Btu/hr 0.3 - < 100

HAPs Emissions

Company Name: RR Donnelley Seymour Plant
Address City IN Zip: 709 A Avenue East, Seymour, IN 47274
FESOP Renewal No.: F071-22986-00024
Reviewer: Donald McQuigg

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	6.887E-04	3.936E-04	2.460E-02	5.904E-01	1.115E-03

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.640E-04	3.608E-04	4.592E-04	1.246E-04	6.887E-04

Methodology is the same as page 15.
The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.