



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
MC 61-53 IGCN 1003
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant
DATE: November 30, 2007
RE: R.R. Donnelley & Sons Company / 107-25249-00052
FROM: Nisha Sizemore
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 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, 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 4-21.5-3-7 and IC 13-15-7-3 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 Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, 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-MOD.dot 03/23/06



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
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Indianapolis, Indiana 46204-2251
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November 30, 2007

Jessica Ortiz
R. R. Donnelley & Sons Company
600 West State Road 32
Crawfordsville, IN 47933-8964

Re: 107-25249-00052
Minor Source Modification to:
Part 70 Permit No.: 107-5963-00052

Dear Ms. Ortiz:

R. R. Donnelley & Sons Company was issued Part 70 Operating Permit T107-5963-00052 on June 21, 2002 for a book printing and binding operation. An application to modify the source was received on September 5, 2007. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

One (1) non heat set, sheet-fed, offset lithographic printing press, identified as Press 251, approved for construction in 2007, with a maximum capacity of 18,000 sheets (17.84 million square inches) per hour, exhausting to stack SP-7J(s).

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.
6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source=s Part 70 Operating Permit to incorporate the required operation conditions.

This minor source modification authorizes construction of the new emission units. Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

Pursuant to Contract No. A305-5-65, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Mr. Stephen Treimel, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7902 to speak directly to Mr. Treimel. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original signed by Matt Stuckey for
Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/ST

cc: File - Montgomery County
Montgomery County Health Department
Air Compliance Section Inspector
Compliance Data Section
Administrative and Development
Billing, Licensing and Training Section



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PART 70 MINOR SOURCE MODIFICATION OFFICE OF AIR QUALITY

R.R. Donnelley & Sons Company
1009 Sloan Street
Crawfordsville, IN 47933-2743

(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; and 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 condition 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 2-7 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.

Minor Source Modification 107-25249-00052	
Issued by: <i>Original signed by Matt Stuckey for Nisha Sizemore, Chief Permits Branch Office of Air Quality</i>	Issuance Date: November 30, 2007



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 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a book printing and binding operation.

Source Address:	1009 Sloan Street, Crawfordsville, IN 47933-2743
Mailing Address:	1009 Sloan Street, Crawfordsville, IN 47933-2743
Phone Number:	(765) 364 -1300
SIC Code:	2732
County Location:	Montgomery
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This book printing and binding operation consists of the following emission units and pollution control devices:

North Plant:

- (1) Four (4) natural gas or propane fired boilers, with a maximum rating of 20.9 MMBtu (million British thermal units) per hour each:
 - (a) Boiler #1(N) with emissions exhausting through stack SB-4A(N).
 - (b) Boiler #2(N) with emissions exhausting through stack SB-4B(N).
 - (c) Boiler #3(N) with emissions exhausting through stack SB-4C(N).
 - (d) Boiler #4(N) with emissions exhausting through stack SB-4D(N).
- (2) One (1) natural gas or propane fired boiler, with a maximum rating of 2.56 MMBtu (million British thermal units) per hour: Boiler #5(N) with emissions exhausting through stack SB-4E(N).
- (3) Four (4) Paper Trim Cyclones:
 - (a) Paper Trim Cyclone #1(N) emissions exhausting through stack SBP-5H(N).
 - (b) Paper Trim Cyclone #2(N) emissions exhausting through stack SBP-5I(N).
 - (c) Paper Trim Cyclone #3(N) emissions exhausting through stack SBP-5J(N).
 - (d) Paper Trim Cyclone #4(N) emissions exhausting through stack SBP-5K(N).
- (4) Two (2) Paper Dust Collectors:
 - (a) Dust Collector #1(N) consists of a cyclone followed by a baghouse for particulate control and is exhausted through SD-6A(N).

- (b) Dust Collector #2(N) consists of a baghouse for particulate control and is exhausted through SD-6B(N).
- (5) Two (2) web offset lithographic printing presses, controlled by one (1) 7.6 MMBtu per hour natural gas fired thermal oxidizer ("North Oxidizer") exhausting to one (1) stack identified as SP-5Y(N) in heatset mode, including:
 - (a) One (1) Mitsubishi web offset lithographic printing press with two (2) units and two (2) webs identified as Press 268 with a maximum line speed of 1600 feet per minute and a maximum printing width of 64 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, exhausting to Vent SP-5AA(N) in nonheatset mode; and
 - (b) One (1) Toshiba web offset lithographic printing Press with four (4) units and two (2) webs identified as Press 269 with a maximum line speed of 1600 feet per minute and a maximum printing width of 50 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, exhausting to Vent SP-5BB(N) in nonheatset mode.
- (6) One (1) Hantscho web offset lithographic printing Press with two (2) units and two (2) webs identified as Press 240 with a maximum line speed of 1000 feet per minute and a maximum printing width of 33 inches, with associated in-line equipment, exhausting to one (1) stack SP-5R(N). The press may operate in either a heatset or nonheatset mode.
- (7) One (1) KBA Compacta web offset lithographic printing Press with two (2) units and two (2) webs identified as Press 281 with a maximum line speed of 1100 feet per minute and a maximum printing width of 26 inches, with associated in-line equipment, exhausting to one (1) stack SP-5S(N). The press may operate in either a heatset or nonheatset mode.
- (8) One (1) Hantscho web offset lithographic printing press with four (4) units and two (2) webs identified as Press 245 with a maximum line speed of 1000 feet per minute and a maximum printing width of 33 inches, with associated in-line equipment, exhausting to one (1) stack SP-5Q(N). The press may operate in either a heatset or nonheatset mode.
- (9) One (1) Timson web offset lithographic printing press with one (1) unit and one (1) web identified as Press 242 with a maximum line speed of 1200 feet per minute and a maximum printing width of 47 inches, with associated in-line equipment, exhausting to one (1) stack SP-5Z(N). The press may operate in either a heatset or nonheatset mode.
- (10) One (1) Timson web offset lithographic printing press with one (1) unit and one (1) web identified as Press 243 with a maximum line speed of 1200 feet per minute and a maximum printing width of 47 inches, with associated in-line equipment, exhausting to one (1) stack SP-5AA(N). The press may operate in either a heatset or nonheatset mode.
- (11) One (1) Harris web offset lithographic printing press with two (2) units and two (2) webs identified as Press 285 with a maximum line speed of 825 feet per minute and a maximum printing width of 26 inches, with associated in-line equipment, exhausting to one (1) stack SP-5K(N). The press may operate in either a heatset or nonheatset mode.
- (12) One (1) Harris web offset lithographic printing press with four (4) units and two (2) webs identified as Press 288 with a maximum line speed of 825 feet per minute and a maximum printing width of 31 inches, with associated in-line equipment, exhausting to one (1) stack SP-5N(N). The press may operate in either a heatset or nonheatset mode.
- (13) One (1) Harris web offset lithographic printing press with four (4) units and two (2) webs identified as Press 289 with a maximum line speed of 825 feet per minute and a maximum printing width of 31 inches, with associated in-line equipment, exhausting to one (1) stack SP-5O(N). The press may operate in either a heatset or nonheatset mode.

- (14) Three (3) UV sheetfed offset lithographic presses:
- (a) One (1) Heidelberg UV sheetfed offset lithographic press identified as Press 232 with a maximum line speed of 317 feet per minute and a maximum printing width of 25.5 inches including five (5) units and coater, exhausting to one (1) stack SP-5U(N) used as cooling air for UV lamps.
 - (b) One (1) Heidelberg UV sheetfed offset lithographic press identified as Press 233 with a maximum line speed of 317 feet per minute and a maximum printing width of 25.5 inches including five (5) units and coater, exhausting to one (1) stack SP-5U(N) used as cooling air for UV lamps.
 - (c) One (1) Heidelberg UV sheetfed offset lithographic press identified as Press 239 with a maximum line speed of 473 feet per minute and a maximum printing width of 40 inches including two (2) units and coater, exhausting to one (1) stack SP-5W(N) used as cooling air for UV lamps.

South Plant:

- (1) Three (3) natural gas or propane fired boilers, with a maximum rating of 25.1 MMBtu (million British thermal units) per hour each:
 - (a) Boiler #1(S) with emissions exhausting through stack SB-4A(S).
 - (b) Boiler #2(S) with emissions exhausting through stack SB-4B(S).
 - (c) Boiler #3(S) with emissions exhausting through stack SB-4C(S).
- (2) Four (4) Paper Trim Cyclones:
 - (a) Paper Trim Cyclone #1(S) emissions exhausting through stack SBP-5E(S).
 - (b) Paper Trim Cyclone #2(S) emissions exhausting through stack SBP-5E(S).
 - (c) Paper Trim Cyclone #3(S) emissions exhausting through stack SBP-5E(S).
 - (d) Paper Trim Cyclone #4(S) emissions exhausting through stack SBP-5E(S).
- (3) Two (2) Paper Dust Collectors:
 - (a) Dust Collector #1(S) consists of a two (2) cyclones each followed by a baghouse (2 total) for particulate control and are exhausted through SD-6A(S) and new exhaust point SD6C(S).
 - (b) Dust Collector #2(S) consists of a baghouse for particulate control and is exhausted through SD-6B(S).
- (4) One (1) Mitsubishi web offset lithographic printing press with four (4) units and two (2) webs identified as Press 262 with a maximum line speed of 1708 feet per minute and a maximum printing width of 61 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stacks SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-5N(S) in nonheatset mode.
- (5) One (1) Hantscho web offset lithographic printing press with four (4) units and two (2) webs identified as Press 270 with a maximum line speed of 807 feet per minute and a maximum printing width of 33 inches, with associated in-line equipment, exhausting to SP-5F(S). The press may operate in either a heatset or nonheatset mode.

- (6) One (1) Cottrell web offset lithographic printing press with four (4) units and two (2) webs identified as Press 272 with a maximum line speed of 1000 feet per minute and a maximum printing width of 64 inches, with associated in-line equipment, exhausting to one (1) stack SP-5D(S). The press may operate in either a heatset or nonheatset mode.
- (7) One (1) Mitsubishi web offset lithographic printing press with four (4) units and two (2) webs identified as Press 273 with a maximum line speed of 1615 feet per minute and a maximum printing width of 64 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stack SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-5L(S) in nonheatset mode.
- (8) One (1) Cottrell web offset lithographic printing press with four (4) units and two (2) webs identified as Press 276 with a maximum line speed of 1200 feet per minute and a maximum printing width of 64 inches, with associated in-line equipment, exhausting to one (1) stack SP-5E(S). The press may operate in either a heatset or nonheatset mode.
- (9) One (1) Toshiba web offset lithographic printing press with four (4) units and one (1) web identified as Press 260 with a maximum line speed of 1615 feet per minute and a maximum printing width of 36 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stack SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-5I(S) in nonheatset mode.
- (10) One (1) Toshiba web offset lithographic printing press with four (4) units and one (1) web identified as Press 261 with a maximum line speed of 1500 feet per minute and a maximum printing width of 36 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stack SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-5J(S) in nonheatset mode.
- (11) One (1) Hantscho web offset lithographic printing press with one (1) unit and one (1) web identified as Press 290 with a maximum line speed of 800 feet per minute and a maximum printing width of 26 inches, with associated in-line equipment, exhausting to one (1) stack SP-5G(S). The press may operate in either a heatset or nonheatset mode.
- (12) One (1) Hantscho web offset lithographic printing press with four (4) units and two (2) webs identified as Press 291 with a maximum line speed of 800 feet per minute and a maximum printing width of 26 inches, with associated in-line equipment, exhausting to one (1) stack SP-5H(S). The press may operate in either a heatset or nonheatset mode.
- (13) One (1) Hantscho web offset lithographic printing press with four (4) units and two (2) webs identified as Press 293 with a maximum line speed of 1000 feet per minute and a maximum printing width of 33 inches, with associated in-line equipment, exhausting to one (1) stack SP-5K(S). The press may operate in either a heatset or nonheatset mode.
- (14) One (1) Hantscho web offset lithographic printing press with four (4) units and two (2) webs identified as Press 294 with a maximum line speed of 1076 feet per minute and a maximum printing width of 33 inches, with associated in-line equipment, exhausting to one (1) stack SP-5M(S). The press may operate in either a heatset or nonheatset mode.
- (15) One (1) Hantscho web offset lithographic printing press with two (2) units and two (2) webs identified as Press 295 with a maximum line speed of 1000 feet per minute and a maximum printing width of 33 inches, with associated in-line equipment, exhausting to one (1) stack SP-5P(S). The press may operate in either a heatset or nonheatset mode.
- (16) One (1) Harris web offset lithographic printing press with two (2) units and two (2) webs identified as Press 296 with a maximum line speed of 860 feet per minute and a

- maximum printing width of 31 inches, with associated in-line equipment, exhausting to one (1) stack SP-5Q(S). The press may operate in either a heatset or nonheatset mode.
- (17) One (1) Heidelberg sheetfed offset lithographic press identified as Press 258 with a maximum line speed of 505 feet per minute and a maximum printing width of 40.5 inches including six (6) units and coater, exhausting to one (1) stack SP-5R(S) used as cooling air for electric heaters.
 - (18) One (1) In-line Stainer 192 used for edge staining paper using low pressure-high volume spray coating and using dry filters for overspray control and exhausting through stack BS-4X(N).
 - (19) One (1) nonheatset, sheet-fed, offset lithographic printing press, identified as Press 250, constructed in 2006, exhausting to stack SP-5U(s), capacity: 13,000 sheets (14.56 million square inches) per hour.
 - (20) One (1) Goss web offset lithographic printing press, identified as Press 301, with a maximum line speed of 2433 feet per minute and a maximum printing width of 50 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stacks SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-7C(S) in nonheatset mode.
 - (21) One (1) Timson web offset lithographic printing press, identified as Press 302, with a maximum line speed of 1700 feet per minute and a maximum printing width of 66 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stacks SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-7D(S) in nonheatset mode.
 - (22) One (1) Goss web offset lithographic printing press, identified as Press 303, with a maximum line speed of 2433 feet per minute and a maximum printing width of 50 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stacks SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-7E(S) in nonheatset mode.
 - (23) One (1) Goss web offset lithographic printing press, identified as Press 304, with a maximum line speed of 2646 feet per minute and a maximum printing width of 66 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stacks SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-7F(S) in nonheatset mode.
 - (24) One (1) Goss web offset lithographic printing press, identified as Press 305, with a maximum line speed of 2433 feet per minute and a maximum printing width of 50 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stacks SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-7G(S) in nonheatset mode.
 - (25) One (1) Goss web offset lithographic printing press, identified as Press 306, with a maximum line speed of 2646 feet per minute and a maximum printing width of 66 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stacks SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-7H(S) in nonheatset mode.
 - (26) One (1) natural gas-fired regenerative thermal oxidizer, identified as RTO-1, rated at 1.7

million British thermal units per hour, capable of controlling Press 260, Press 261, Press 262, Press 273, Press 301, Press 302, Press 303, Press 304, Press 305 and/or Press 306, exhausting to Stack SP-5T(S).

- (27) One (1) natural gas-fired regenerative thermal oxidizer, identified as RTO-2, rated at 3.0 million British thermal units per hour, capable of controlling Press 260, Press 261, Press 262, Press 273, Press 301, Press 302, Press 303, Press 304, Press 305 and/or Press 306, exhausting to Stack SP-7A(S).
- (28) One (1) natural gas-fired regenerative thermal oxidizer, identified as RTO-3, rated at 3.0 million British thermal units per hour, capable of controlling Press 260, Press 261, Press 262, Press 273, Press 301, Press 302, Press 303, Press 304, Press 305 and/or Press 306, exhausting to Stack SP-7B(S).
- (29) One (1) nonheatset, sheet-fed, offset lithographic printing press, identified as Press 251, approved for construction in 2007, with a maximum capacity of 18,000 sheets (17.84 million square inches) per hour, exhausting to stack SP-7J(s).

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21) that have applicable requirements.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Printing Presses

North Plant:

- (5) Two (2) web offset lithographic printing presses, controlled by one (1) 7.6 MMBtu per hour natural gas fired thermal oxidizer ("North Oxidizer") exhausting to one (1) stack identified as SP-5Y(N) in heatset mode, including:
 - (a) One (1) Mitsubishi web offset lithographic printing press with two (2) units and two (2) webs identified as Press 268 with a maximum line speed of 1600 feet per minute and a maximum printing width of 64 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, exhausting to Vent SP-5AA(N) in nonheatset mode; and
 - (b) One (1) Toshiba web offset lithographic printing Press with four (4) units and two (2) webs identified as Press 269 with a maximum line speed of 1600 feet per minute and a maximum printing width of 50 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, exhausting to Vent SP-5BB(N) in nonheatset mode.
- (6) One (1) Hantscho web offset lithographic printing press with two (2) units and two (2) webs identified as Press 240 with a maximum line speed of 1000 feet per minute and a maximum printing width of 33 inches, with associated in-line equipment, exhausting to one (1) stack SP-5R(N). The press may operate in either a heatset or nonheatset mode.
- (7) One (1) KBA Compacta web offset lithographic printing press with two (2) units and two (2) webs identified as Press 281 with a maximum line speed of 1100 feet per minute and a maximum printing width of 26 inches, with associated in-line equipment, exhausting to one (1) stack SP-5S(N). The press may operate in either a heatset or nonheatset mode.
- (8) One (1) Hantscho web offset lithographic printing press with four (4) units and two (2) webs identified as Press 245 with a maximum line speed of 1000 feet per minute and a maximum printing width of 33 inches, with associated in-line equipment, exhausting to one (1) stack SP-5Q(N). The press may operate in either a heatset or nonheatset mode.
- (9) One (1) Timson web offset lithographic printing press with one (1) unit and one (1) web identified as Press 242 with a maximum line speed of 1200 feet per minute and a maximum printing width of 47 inches, with associated in-line equipment, exhausting to one (1) stack SP-5Z(N). The press may operate in either a heatset or nonheatset mode.
- (10) One (1) Timson web offset lithographic printing press with one (1) unit and one (1) web identified as Press 243 with a maximum line speed of 1200 feet per minute and a maximum printing width of 47 inches, with associated in-line equipment, exhausting to one (1) stack SP-5AA(N). The press may operate in either a heatset or nonheatset mode.
- (11) One (1) Harris web offset lithographic printing press with two (2) units and two (2) webs identified as Press 285 with a maximum line speed of 825 feet per minute and a maximum printing width of 26 inches, with associated in-line equipment, exhausting to one (1) stack SP-5K(N). The press may operate in either a heatset or nonheatset mode.

Facility Description [326 IAC 2-7-5(15)]: Printing Presses (Continued)

- (12) One (1) Harris web offset lithographic printing press with four (4) units and two (2) webs identified as Press 288 with a maximum line speed of 825 feet per minute and a maximum printing width of 31 inches, with associated in-line equipment, exhausting to one (1) stack SP-5N(N). The press may operate in either a heatset or nonheatset mode.
- (13) One (1) Harris web offset lithographic printing press with four (4) units and two (2) webs identified as Press 289 with a maximum line speed of 825 feet per minute and a maximum printing width of 31 inches, with associated in-line equipment, exhausting to one (1) stack SP-5O(N). The press may operate in either a heatset or nonheatset mode.
- (14) Three (3) UV sheetfed offset lithographic presses:
 - (a) One (1) Heidelberg UV sheetfed offset lithographic press identified as Press 232 with a maximum line speed of 317 feet per minute and a maximum printing width of 25.5 inches including five (5) units and coater, exhausting to one (1) stack SP-5U(N) used as cooling air for UV lamps.
 - (b) One (1) Heidelberg UV sheetfed offset lithographic press identified as Press 233 with a maximum line speed of 317 feet per minute and a maximum printing width of 25.5 inches including five (5) units and coater, exhausting to one (1) stack SP-5U(N) used as cooling air for UV lamps.
 - (c) One (1) Heidelberg UV sheetfed offset lithographic press identified as Press 239 with a maximum line speed of 473 feet per minute and a maximum printing width of 40 inches including two (2) units and coater, exhausting to one (1) stack SP-5W(N) used as cooling air for UV lamps.

South Plant:

- (4) One (1) Mitsubishi web offset lithographic printing press with four (4) units and two (2) webs identified as Press 262 with a maximum line speed of 1708 feet per minute and a maximum printing width of 61 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stack SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-5N(S) in nonheatset mode.
- (5) One (1) Hantscho web offset lithographic printing press with four (4) units and two (2) webs identified as Press 270 with a maximum line speed of 807 feet per minute and a maximum printing width of 33 inches, with associated in-line equipment, exhausting to SP-5F(S). The press may operate in either a heatset or nonheatset mode.

Facility Description [326 IAC 2-7-5(15)]: Printing Presses (Continued)

- (6) One (1) Cottrell web offset lithographic printing press with four (4) units and two (2) webs identified as Press 272 with a maximum line speed of 1000 feet per minute and a maximum printing width of 64 inches, with associated in-line equipment, exhausting to one (1) stack SP-5D(S). The press may operate in either a heatset or nonheatset mode.
- (7) One (1) Mitsubishi web offset lithographic printing press with four (4) units and two (2) webs identified as Press 273 with a maximum line speed of 1615 feet per minute and a maximum printing width of 64 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stack SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-5L(S) in nonheatset mode.
- (8) One (1) Cottrell web offset lithographic printing press with four (4) units and two (2) webs identified as Press 276 with a maximum line speed of 1200 feet per minute and a maximum printing width of 64 inches, with associated in-line equipment, exhausting to one (1) stack SP-5E(S). The press may operate in either a heatset or nonheatset mode.
- (9) One (1) Toshiba web offset lithographic printing press with four (4) units and one (1) web identified as Press 260 with a maximum line speed of 1615 feet per minute and a maximum printing width of 36 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stack SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-5I(S) in nonheatset mode.
- (10) One (1) Toshiba web offset lithographic printing press with four (4) units and one (1) web identified as Press 261 with a maximum line speed of 1500 feet per minute and a maximum printing width of 36 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stack SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-5J(S) in nonheatset mode.
- (11) One (1) Hantscho web offset lithographic printing press with one (1) unit and one (1) web identified as Press 290 with a maximum line speed of 800 feet per minute and a maximum printing width of 26 inches, with associated in-line equipment, exhausting to one (1) stack SP-5G(S). The press may operate in either a heatset or nonheatset mode.
- (12) One (1) Hantscho web offset lithographic printing press with four (4) units and two (2) webs identified as Press 291 with a maximum line speed of 800 feet per minute and a maximum printing width of 26 inches, with associated in-line equipment, exhausting to one (1) stack SP-5H(S). The press may operate in either a heatset or nonheatset mode.
- (13) One (1) Hantscho web offset lithographic printing press with four (4) units and two (2) webs identified as Press 293 with a maximum line speed of 1000 feet per minute and a maximum printing width of 33 inches, with associated in-line equipment, exhausting to one (1) stack SP-5K(S). The press may operate in either a heatset or nonheatset mode.
- (14) One (1) Hantscho web offset lithographic printing press with four (4) units and two (2) webs identified as Press 294 with a maximum line speed of 1076 feet per minute and a maximum printing width of 33 inches, with associated in-line equipment, exhausting to one (1) stack SP-5M(S). The press may operate in either a heatset or nonheatset mode.

Facility Description [326 IAC 2-7-5(15)]: Printing Presses (continued)

- (15) One (1) Hantscho web offset lithographic printing press with two (2) units and two (2) webs identified as Press 295 with a maximum line speed of 1000 feet per minute and a maximum printing width of 33 inches, with associated in-line equipment, exhausting to one (1) stack SP-5P(S). The press may operate in either a heatset or nonheatset mode.
- (16) One (1) Harris web offset lithographic printing press with two (2) units and two (2) webs identified as Press 296 with a maximum line speed of 860 feet per minute and a maximum printing width of 31 inches, with associated in-line equipment, exhausting to one (1) stack SP-5Q(S). The press may operate in either a heatset or nonheatset mode.
- (17) One (1) Heidelberg sheetfed offset lithographic press identified as Press 258 with a maximum line speed of 505 feet per minute and a maximum printing width of 40.5 inches including six (6) units and coater, exhausting to one (1) stack SP-5R(S) used as cooling air for electric heaters.
- (18) One (1) In-line Stainer 192 used for edge staining paper using low pressure-high volume spray coating and using dry filters for overspray control and exhausting through stack BS-4X(S).
- (19) One (1) nonheatset, sheet-fed, offset lithographic printing press, identified as Press 250, constructed in 2006, exhausting to stack SP-5U(s), capacity: 13,000 sheets (14.56 million square inches) per hour.
- (20) One (1) Goss web offset lithographic printing press, identified as Press 301, with a maximum line speed of 2433 feet per minute and a maximum printing width of 50 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stacks SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-7C(S) in nonheatset mode.
- (21) One (1) Timson web offset lithographic printing press, identified as Press 302, with a maximum line speed of 1700 feet per minute and a maximum printing width of 66 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stacks SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-7D(S) in nonheatset mode.
- (22) One (1) Goss web offset lithographic printing press, identified as Press 303, with a maximum line speed of 2433 feet per minute and a maximum printing width of 50 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stacks SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-7E(S) in nonheatset mode.
- (23) One (1) Goss web offset lithographic printing press, identified as Press 304, with a maximum line speed of 2646 feet per minute and a maximum printing width of 66 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stacks SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-7F(S) in nonheatset mode.
- (24) One (1) Goss web offset lithographic printing press, identified as Press 305, with a maximum line speed of 2433 feet per minute and a maximum printing width of 50 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stacks SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-7G(S) in nonheatset mode.

- (25) One (1) Goss web offset lithographic printing press, identified as Press 306, with a maximum line speed of 2646 feet per minute and a maximum printing width of 66 inches, with associated in-line equipment. The press may operate in either a heatset or nonheatset mode, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting to Stacks SP-5T(S), SP-7A(S) and/or SP-7B(S) in heatset mode or Vent SP-7H(S) in nonheatset mode.
- (26) One (1) natural gas-fired regenerative thermal oxidizer, identified as RTO-1, rated at 1.7 million British thermal units per hour, capable of controlling Press 260, Press 261, Press 262, Press 273, Press 301, Press 302, Press 303, Press 304, Press 305 and/or Press 306, exhausting to Stack SP-5T(S).
- (27) One (1) natural gas-fired regenerative thermal oxidizer, identified as RTO-2, rated at 3.0 million British thermal units per hour, capable of controlling Press 260, Press 261, Press 262, Press 273, Press 301, Press 302, Press 303, Press 304, Press 305 and/or Press 306, exhausting to Stack SP-7A(S).
- (28) One (1) natural gas-fired regenerative thermal oxidizer, identified as RTO-3, rated at 3.0 million British thermal units per hour, capable of controlling Press 260, Press 261, Press 262, Press 273, Press 301, Press 302, Press 303, Press 304, Press 305 and/or Press 306, exhausting to Stack SP-7B(S).
- (29) One (1) nonheatset, sheet-fed, offset lithographic printing press, identified as Press 251, approved for construction in 2007, with a maximum capacity of 18,000 sheets (17.84 million square inches) per hour, exhausting to stack SP-7J(s).

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

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.3.1 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6] [326 IAC 2-7-10.5(d)(5)(A)] [326 IAC 2-2]

The following presses shall be limited as follows:

- (a) Press 240, Press 281, Press 245, Press 289, Press 239, Press 290, Press 291, Press 293, Press 294, Press 295, and Press 296:

The VOC content delivered to the applicator of each press shall be limited such that VOC emitted is less than twenty-five (25) tons per twelve (12) consecutive month period. Therefore, the best available control technology (BACT) requirement in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply.

For each press, VOC emitted shall be based on the following equation:

$$\begin{aligned} \text{VOC emissions (tpy)} = & \\ & (\text{ink usage in heatset mode} * \text{VOC content} * 80\% \text{ flash off}) + \\ & (\text{ink usage in nonheatset mode} * \text{VOC content} * 5\% \text{ flash off}) + \\ & (\text{fountain solution usage} * \text{VOC content} * 100\% \text{ flash off}) + \\ & (\text{manual cleaner usage} * \text{VOC content} * 50\% \text{ flash off}) + \\ & (\text{automatic cleaner usage} * \text{VOC content} * 100\% \text{ flash off}) \end{aligned}$$

- (b) Press 258:

The VOC content delivered to the applicator of Press 258 shall be limited such that VOC emitted is less than ten (10) tons per twelve (12) consecutive month period. Any change or modification which may increase the volatile organic compound potential emissions to more than 10 tons per twelve (12) consecutive month period must be reported to IDEM, OAQ.

(c) Press 232 and Press 233:

The VOC content delivered to the applicator of the press shall be limited such that VOC emitted is less than twenty-five (25) tons combined pressroom emissions from Press 232 and Press 233 (combined) per twelve (12) consecutive month period. Therefore, the best available control technology (BACT) requirement in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply.

For these two presses, total VOC emitted shall be based on the following equation:

$$\begin{aligned} \text{VOC emissions (tpy)} = & \\ & (\text{ink usage} * \text{VOC content} * 80\% \text{ flash off}) + \\ & (\text{fountain solution usage} * \text{VOC content} * 100\% \text{ flash off}) + \\ & (\text{manual cleaner usage} * \text{VOC content} * 50\% \text{ flash off}) \end{aligned}$$

Amendment 107-10512-00052, issued March 15, 1999, allowed usage of isopropyl alcohol at 750 pounds per year as part of the fountain solution and shall remain in effect.

(d) Press 242 and Press 243:

Pursuant to CP 107-4233 issued April 20, 1995, total VOC content delivered to the applicator of Press 242 and Press 243 shall be limited such that VOC emitted is less than a combined 39 tons per year, calculated on a 12 month rolling monthly average. The total amount of VOC delivered to each press individually, including clean-up solvents, shall be limited such that VOC emitted is less than 25 tons per year, per press, calculated on a 12 month rolling monthly average. Therefore, 326 IAC 2-2 and 326 IAC 8-1-6 do not apply.

For each press, VOC emitted shall be based on the following equation:

$$\begin{aligned} \text{VOC emissions (tpy)} = & \\ & (\text{ink usage in heatset mode} * \text{VOC content} * 80\% \text{ flash off}) + \\ & (\text{ink usage in nonheatset mode} * \text{VOC content} * 5\% \text{ flash off}) + \\ & (\text{fountain solution usage} * \text{VOC content} * 100\% \text{ flash off}) + \\ & (\text{manual cleaner usage} * \text{VOC content} * 50\% \text{ flash off}) + \\ & (\text{automatic cleaner usage} * \text{VOC content} * 100\% \text{ flash off}) \end{aligned}$$

(e) Press 260, Press 261, Press 262, Press 273, Press 301, Press 302, Press 303, Press 304, Press 305, Press 306, Press 251, Press 268 and Press 269:

(1) Heatset Mode

When operating in heatset mode, Presses 268 and 269 will be controlled by the North Oxidizer, a 7.6 MMBtu per hour thermal oxidizer, and Presses 260, 261, 262, 273, 301, 302, 303, 304, 305 and 306 will be controlled by the regenerative thermal oxidizer system, consisting of one to three operating regenerative thermal oxidizers identified as RTO-1, RTO-2 and RTO-3. The North Oxidizer and the regenerative thermal oxidizer system shall be in operation at all times during which any of the printing presses controlled by the oxidizers/oxidizer system are operating in heatset mode.

(A) Pursuant to CP 107-2726 issued on February 26, 1993 and CP 107-2917 issued on April 6, 1993, Presses 268 and 269 shall not be operated in heatset mode until such time that the combustion temperature in the thermal oxidizer has attained the minimum temperature determined in testing requirements to destroy at least 90% of captured VOC.

- (B) Presses 260, 261, 262, 273, 301, 302, 303, 304, 305 and 306 shall not be operated in heatset mode until such time that the combustion temperature(s) in the thermal oxidizer system has attained the minimum temperature(s) determined in testing requirements to destroy at least 97% of captured VOC.
 - (C) The fountain solution used by Presses 301, 302, 303, 304, 305 and 306 shall not contain greater than 5.0% VOC content by weight, as applied;
 - (D) The solvents used for blanket and roller washes by Presses 301, 302, 303, 304, 305 and 306 shall comply with at least one (1) of the following:
 - (i) The solvent shall not have a composite VOC vapor pressure greater than 10 mm Hg at 20^oC, or
 - (ii) The solvent shall not contain greater than 2.5 pounds of VOC per gallon, as applied.
 - (E) The manual cleaning solvents used by Presses 301, 302, 303, 304, 305 and 306 shall comply with at least one (1) of the following:
 - (i) The solvent shall not have a composite VOC vapor pressure greater than 25 mm Hg at 20^oC, or
 - (ii) The solvent shall not contain greater than 2.5 pounds of VOC per gallon, as applied.
- (2) Nonheatset Mode
When operating any of Presses 260, 261, 262, 273, 301, 302, 303, 304, 305, 306, 268, and 269 in nonheatset mode:
- (A) The inks used by that press shall not contain greater than 2.5 pounds of VOC per gallon, as applied;
 - (B) The fountain solution used by that press shall not contain greater than 2.0% VOC content by weight, as applied; and
 - (C) The solvents used for blanket and roller washes by that press shall comply with at least one (1) of the following:
 - (i) The solvent shall not have a composite VOC vapor pressure greater than 10 mm Hg at 20^oC, or
 - (ii) The solvent shall not contain greater than 2.5 pounds of VOC per gallon, as applied.
 - (D) The manual cleaning solvents used by that press shall comply with at least one (1) of the following:
 - (i) The solvent shall not have a composite VOC vapor pressure greater than 25 mm Hg at 20^oC, or
 - (ii) The solvent shall not contain greater than 2.5 pounds of VOC per gallon, as applied.

(3) Heatset and Nonheatset Modes

In order to render 326 IAC 2-2 not applicable to the modifications performed under SSM 107-24571-00052 and MSM 107-25249-00052, the total VOC content delivered to the applicator of Presses 301, 302, 303, 304, 305, 306, and 251 shall be limited such that VOC emitted shall not exceed 39.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

For presses 301 through 306, VOC emitted shall be based on the following equation:

VOC emissions (tpy) =
(ink usage in heatset mode * VOC content * 80% flash off * 3% emitted after controls) + (ink usage in nonheatset mode * VOC content * 5% flash off) + (fountain solution usage in heatset mode * VOC content * 100% flash off * 32.1% emitted after controls) + (fountain solution usage in nonheatset mode * VOC content * 100% flash off) + (manual cleaner usage * VOC content * 50% flash off) + (automatic cleaner usage in heatset mode * VOC content * 61.2% emitted after controls) + (automatic cleaner usage in nonheatset mode * VOC content * 100% flash off)

For press 251, total VOC emitted shall be based on the following equation:

VOC emissions (tpy) =
(ink usage * VOC content * 5% flash off) +
(fountain solution usage * VOC content * 100% flash off) +
(manual cleaner usage * VOC content * 50% flash off) +
(automatic cleaner usage * VOC content * 100% flash off)

D.3.2 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

The VOC content delivered to Stainer 192 shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period. Therefore, the best available control technology (BACT) requirement in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply.

D.3.3 Clean-up Solvent VOC Emissions Control

The VOC flash off for clean-up solvent is 100%. As derived from USEPA's Alternative Control Techniques Document: Offset Lithographic Printing (EPA 453/R-94 054, June 1994), the accepted shop towel retention factor for clean-up solvent is 50%. A 50% reduction in flash off shall be used in VOC emissions formulae in D.3.1 as an emission control technique and shall meet the following conditions:

- (a) The clean-up solvent shall have a VOC content of thirty percent (30%) or less, by weight, or a composite VOC vapor pressure less than or equal to ten (10) millimeters of mercury (Hg) at twenty degrees Celsius (20°C); and
- (b) The clean-up solvents shall be kept in tightly covered tanks or containers during transport and storage; and
- (c) The cleaning cloths used with the clean-up solvents shall be placed in tightly closed containers when not in use and while awaiting off-site transport. The cleaning cloths shall be properly cleaned and disposed.

D.3.4 VOC Emissions

Compliance with Condition D.3.1 and D.3.2 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period and appropriate flash off factors.

D.3.5 Particulate Matter (PM) [326 IAC 6-3]

The PM from Stainer 192 shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

D.3.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for all of these facilities and all control devices.

Compliance Determination Requirements

D.3.7 Particulate Matter (PM)

The dry filters shall be in operation at all times Stainer 192 is in operation, in order to comply with this limit.

D.3.8 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Testing of the North Oxidizer and regenerative thermal oxidizer RTO-1 to verify their destruction efficiencies was performed on August 18, 2005.
- (b) Within sixty (60) days after achieving the maximum rated capacity at which Presses 303 and 304 will be operated, but no later than 180 days after startup, the Permittee shall conduct a performance test to verify the VOC destruction efficiency as per Condition D.3.1 for regenerative thermal oxidizer RTO-2 utilizing methods as approved by the Commissioner.
- (c) Within sixty (60) days after achieving the maximum rated capacity at which Presses 305 and 306 will be operated, but no later than 180 days after startup, the Permittee shall conduct a performance test to verify the VOC destruction efficiency as per Condition D.3.1 for regenerative thermal oxidizer RTO-3 utilizing methods as approved by the Commissioner.
- (d) These tests shall be repeated at least once every two and one-half (2 1/2) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

D.3.9 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.3.1 and D.3.2 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. 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.3.10 Thermal Oxidizers

- (a) The North Oxidizer shall operate at all times that either of the Presses 268 or 269 are operating in heatset mode.
- (b) The regenerative thermal oxidizer system, consisting of one (1) to three (3) oxidizers identified as RTO-1, RTO-2 and/or RTO-3, shall operate at all times that any of Presses 260, 261, 262, 273, 301, 302, 303, 304, 305 and 306 are operating in heatset mode.
- (c) When operating the North Oxidizer, the thermal oxidizer shall maintain a minimum operating temperature of:
 - (1) 1350°F, or

- (2) the temperature and fan amperage or duct velocity determined at the stack tests that achieves a minimum 90% destruction efficiency of the VOC.
- (d) When operating thermal oxidizers RTO-1, RTO-2 or RTO-3, the thermal oxidizer shall maintain a minimum operating temperature of:
 - (1) 1350°F, or
 - (2) the temperature and fan amperage or duct velocity determined at the stack tests that achieves a minimum 97% destruction efficiency of the VOC.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.3.11 Thermal Oxidizer Temperature

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on each thermal oxidizer for measuring operating temperature. The output of this system shall be recorded as a 3-hour average. From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate each thermal oxidizer at or above the 3-hour average temperature of 1350°F.
- (b) The Permittee shall determine, for each thermal oxidizer, the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with the control efficiency requirement in Condition D.3.1(e)(1), as approved by IDEM.
- (c) On and after the date the approved stack test results are available, the Permittee shall operate each thermal oxidizer at or above the 3-hour average temperature as observed during the compliant stack test.

D.3.12 Parametric Monitoring

- (a) The Permittee shall determine, for each thermal oxidizer, the appropriate duct pressure or fan amperage from the most recent valid stack test that demonstrates compliance with the control efficiency requirement in Condition D.3.1(e)(1), as approved by IDEM.
- (b) The duct pressure or fan amperage shall be observed at least once per week when the thermal oxidizer is in operation. On and after the date the approved stack test results are available, the duct pressure or fan amperage shall be maintained within the normal range as established in most recent compliant stack test.

D.3.13 Particulate Matter Monitoring

- (a) Pursuant to CP 107-2853 daily inspection from the in-line Stainer Press 192 shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray while in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. During periods of inclement weather, these inspections shall be performed as weather permits. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.3.14 Record Keeping Requirements

- (a) To document compliance with Conditions D.3.1, D.3.2 and D.3.3, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Conditions D.3.1, D.3.2 and D.3.3:
- (1) The amount and VOC content of each ink, fountain solution, coating material and solvent used. Records shall include purchase orders, invoices, material safety data sheets (MSDS) or other documentation necessary to verify the type and amount used. Ink usage records shall indicate whether the ink was used in heatset or nonheatset mode. Solvent usage records shall differentiate between those used in coatings and ink and those used as cleanup solvents;
 - (2) The volume weighted VOC content of the nonheatset inks used on Presses 260, 261, 262, 273, 301, 302, 303, 304, 305, 306, 251, 268, and 269 for each month;
 - (3) The total VOC usage for each month; and
 - (4) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Condition D.3.13, the Permittee shall maintain a log of weekly overspray observations.
- (c) To document the compliance with Condition D.3.10 and D.3.11, the continuous temperature records for the thermal oxidizers and the temperature used to demonstrate compliance during the most recent compliance stack test and weekly records of the duct pressure or fan amperage.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.15 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.1 and D.3.2 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 "responsible official" as defined by 326 IAC 2-7-1(34).

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

Part 70 Quarterly Report

Source Name: R.R. Donnelley & Sons Company
 Source Address: 1009 Sloan Street, Crawfordsville, IN 47933-2743
 Mailing Address: 1009 Sloan Street, Crawfordsville, IN 47933-2743
 Part 70 Permit No.: T107-5963-00052
 Facility: Press 301, Press 302, Press 303, Press 304, Press 305, Press 306, and Press 251
 Parameter: VOC
 Limit: Total VOC emissions shall not exceed a combined 39.9 tons per year, based on the following equation:

For presses 301 through 306, VOC emissions =
 (ink usage in heatset mode * VOC content * 80% flash off * 3% emitted after controls) +
 (ink usage in nonheatset mode * VOC content * 5% flash off) +
 (fountain solution usage in heatset mode * VOC content * 100% flash off *
 32.1% emitted after controls) +
 (fountain solution usage in nonheatset mode * VOC content * 100% flash off) +
 (manual cleaner usage * VOC content * 50% flash off) +
 (automatic cleaner usage in heatset mode * VOC content * 61.2% emitted after controls) +
 (automatic cleaner usage in nonheatset mode * VOC content * 100% flash off)

For press 251, VOC emissions =
 (ink usage * VOC content * 5% flash off) +
 (fountain solution usage * VOC content * 100% flash off) +
 (manual cleaner usage * VOC content * 50% flash off) +
 (automatic cleaner usage * VOC content * 100% flash off)

QUARTER : YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
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**

Technical Support Document (TSD) for a
Part 70 Minor Source Modification and
Part 70 Significant Permit Modification

Source Description and Location
--

Source Name:	R. R. Donnelley & Sons Company
Source Location:	1009 Sloan Street, Crawfordsville, IN 47933-2743
County:	Montgomery
SIC Code:	2732
Operation Permit No.:	T107-5963-00052
Operation Permit Issuance Date:	June 21, 2002
Minor Source Modification No.:	107-25249-00052
Significant Permit Modification No.:	107-25364-00052
Permit Reviewer:	ERG/ST

Existing Approvals

The source was issued Part 70 Operating Permit 107-5963-00052 on June 21, 2002. The source has since received the following approvals:

- (a) Administrative Amendment 107-17119-00052, issued on February 4, 2003;
- (b) Significant Permit Modification 107-16731-00052, issued on March 28, 2003;
- (c) Administrative Amendment 107-17255-00052, issued on April 8, 2003;
- (d) Administrative Amendment 107-17454-00052, issued on July 25, 2003;
- (e) Administrative Amendment 107-18767-00052, issued on March 15, 2004;
- (f) Minor Permit Modification 107-21171-00052, issued on August 5, 2005;
- (g) Minor Source Modification 107-22646-00052, issued on April 3, 2006;
- (h) Minor Permit Modification 107-22728-00052, issued on June 1, 2006;
- (i) Administrative Amendment 107-22827-00052, issued on June 21, 2006;
- (j) Significant Permit Modification 107-23347-00052, issued on August 15, 2007;
- (k) Significant Source Modification 107-24571-00052, issued on October 1, 2007; and
- (l) Significant Permit Modification 107-24641-00052, issued October 19, 2007.

County Attainment Status

The source is located in Montgomery County.

Pollutant	Status
PM10	Attainment
PM2.5	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 emissions and NOx emissions are considered when evaluating the rule applicability relating to ozone. Montgomery County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions 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) Montgomery 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 a surrogate for PM2.5 emissions.
- (c) Montgomery 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.
- (d) Fugitive Emissions
 Since this type of operation is not in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (tons/year)
PM	Less than 250
PM10	Less than 250
SO ₂	Less than 250
VOC	Greater than 250
CO	Less than 250
NO _x	Less than 250
Single HAP	Greater than 250
Total HAPs	Greater than 250

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (b) This existing source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).
- (c) These emissions are based upon the Technical Support Document for Significant Source Modification 107-24571-00052, issued on October 1, 2007.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2003 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM10	10
PM2.5	7
SO ₂	0
VOC	204
CO	10
NO _x	11
HAP	Not Reported

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by R. R. Donnelley & Sons Company on September 5, 2007, relating to the construction of a new nonheatset lithographic printing press (Press 251). The following is a description of the proposed emission unit:

One (1) nonheatset, sheet-fed, offset lithographic printing press, identified as Press 251, approved for construction in 2007, with a maximum capacity of 18,000 sheets (17.84 million square inches) per hour, exhausting to stack SP-7J(s).

The source also will be removing three existing presses (press 238, 286, and 287) in this modification.

Enforcement Issues

There are no pending enforcement actions.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
SP-7J(s)	Press 251	35	0.7	750	Ambient

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 and 2).

Permit Level Determination – Part 70

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

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE of Press 251 before controls or limits. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit of Press 251 (tons/year)
PM	0
PM10	0
SO ₂	0
VOC	24.3
CO	0
NO _x	0
Single HAP (Glycol Ethers)	1.30
Total HAPs	2.25

This source modification is subject to 326 IAC 2-7-10.5(d)(3)(B) because the potential to emit of VOC of the new press is greater than ten (10) tons per year but less than twenty-five (25) tons per year and the press does not require air pollution control equipment to comply with the requirements of 326 IAC 8. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d) because this modification requires case-by-case determination of an emission limitation or other standard.

Permit Level Determination – PSD

This source added six (6) presses (Presses 301 through 306) under Significant Source Modification 107-24571-00052, issued on October 1, 2007. This source proposes to add an additional press (Press 251) in this source modification (107-25249-00052). IDEM considers the modifications made under SSM 107-24571-00052 and MSM 107-25249-00052 to be a single project because the two modifications occur within one year of each other. The unlimited potential to emit of these presses is as shown in the following table:

Emission Unit	Potential to Emit (tons/year)					
	PM	PM10	SO ₂	VOC	CO	NO _x
Presses 301 through 306	0.23	0.92	0.07	1081	10.1	12.1
Press 251	0	0	0	24.3	0	0
Total for Modification	0.23	0.92	0.07	1105	10.1	12.1
PSD Significant Modification Threshold	25	15	40	40	100	40

- (a) Since this source is considered a major PSD source and the unrestricted potential to emit of this modification is greater than forty (40) tons of VOC per year, this source has elected to limit the potential to emit of this modification as follows:

In order to render 326 IAC 2-2 not applicable to the modifications performed under SSM

107-24571-00052 and MSM 107-25249-00052, the total VOC content delivered to the applicator of Presses 301, 302, 303, 304, 305, 306, and 251 shall be limited such that VOC emitted shall not exceed 39.9 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

For presses 301 through 306, VOC emitted shall be based on the following equation:

VOC emissions (tpy) =
(ink usage in heatset mode * VOC content * 80% flash off * 3% emitted after controls) +
(ink usage in nonheatset mode * VOC content * 5% flash off) +
(fountain solution usage in heatset mode * VOC content * 100% flash off * 32.1% emitted after controls) +
(fountain solution usage in nonheatset mode * VOC content * 100% flash off) +
(manual cleaner usage * VOC content * 50% flash off) +
(automatic cleaner usage in heatset mode * VOC content * 61.2% emitted after controls) +
(automatic cleaner usage in nonheatset mode * VOC content * 100% flash off)

For press 251, total VOC emitted shall be based on the following equation:

VOC emissions (tpy) =
(ink usage * VOC content * 5% flash off) +
(fountain solution usage * VOC content * 100% flash off) +
(manual cleaner usage * VOC content * 50% flash off) +
(automatic cleaner usage * VOC content * 100% flash off)

- (b) Montgomery County has been designated as nonattainment for PM 2.5 in 70 FR 943 dated January 5, 2005. According to the April 5, 2005 EPA memo titled "Implementation of New Source Review Requirements in PM2.5 Nonattainment Areas" authored by Steve Page, Director of OAQPS, until EPA promulgates the PM2.5 major NSR regulations, states should assume that a major stationary source's PM10 emissions represent PM2.5 emissions. IDEM will use the PM10 nonattainment major NSR program as a surrogate to address the requirements of nonattainment major NSR for the PM2.5 NAAQS. A major source in a nonattainment area is a source that emits or has the potential to emit one hundred (100) tons per year of any nonattainment regulated pollutant. R. R. Donnelley & Sons Company has a limited potential to emit of PM10 below one hundred (100) tons per year. Therefore, assuming that PM10 emissions represent PM2.5 emissions, 326 IAC 2-3 does not apply for PM2.5.

Federal Rule Applicability Determination

- (a) There are no New Source Performance Standards (40 CFR 60, 326 IAC 12) included in this proposed modification.
- The requirements of the New Source Performance Standards for the Graphic Arts Industry: Publication Rotogravure Printing (40 CFR 60 Subpart QQ, 326 IAC 12) are not included in this modification because the printing presses at this source are not rotogravure printing presses.
- (b) There are no National Emission Standards for Hazardous Air Pollutants 40 CFR 61, 40 CFR 63, 326 IAC 14, 326 IAC 20) included in this proposed modification.
- The requirements of the New Source Performance Standards for the Printing and Publishing Industry (40 CFR 63 Subpart KK, 326 IAC 12) are not included in this modification because the printing presses at this source are not publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses.
- (c) 40 CFR Part 64 (Compliance Assurance Monitoring)

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

- (1) Have a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
- (2) Are subject to an emission limitation or standard for that pollutant; and
- (3) Use a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The potential to emit of VOC of Press 251 is less than the major source threshold (100 tons per year) and the press does not use a control device. Therefore, the requirements of 40 CFR 64 do not apply.

State Rule Applicability Determination - Entire Source

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 (Prevention of Significant Deterioration)

PSD applicability is discussed under the Permit Level Determination - PSD section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of Presses 301 through 306 and Press 251 will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

State Rule Applicability Determination - Press 251

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

Press 251 is not subject to 326 IAC 8-2-5 (Paper Coating Operations). The rule does not apply since the printing process does not fully saturate the substrate. This determination is consistent with the applicability determinations of the existing presses at this emission source, and is consistent with information contained in U.S. EPA document AP-42, Chapter 4.2.2.6, "Paper Coating."

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

Press 251 is not subject to 326 IAC 8-5-5 (Graphic Arts Operations). The rule does not apply since the printing press is not a packaging rotogravure, publication rotogravure, or flexographic printing press.

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

The potential to emit of VOC from Press 251 is less than twenty-five (25) tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements 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 within a specific time period.

There are no Compliance Determination Requirements or Compliance Monitoring Requirements applicable to this modification. Testing is not necessary because the Permittee will be required to keep records of VOC usage at press 251.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T107-5963-00052 as a result of this modification. Deleted language appears as ~~strike throughs~~ and new language appears in **bold**:

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This book printing and binding operation consists of the following emission units and pollution control devices:

North Plant:

...

~~(12) One (1) Harris web offset lithographic printing press with two (2) units and two (2) webs identified as Press 286 with a maximum line speed of 825 feet per minute and a maximum printing width of 31 inches, with associated in-line equipment, exhausting to one (1) stack SP-5L(N). The press may operate in either a heatset or nonheatset mode.~~

~~(13) One (1) Harris web offset lithographic printing press with four (4) units and two (2) webs identified as Press 287 with a maximum line speed of 825 feet per minute and a maximum printing width of 31 inches, with associated in-line equipment, exhausting to one (1) stack SP-5M(N). The press may operate in either a heatset or nonheatset mode.~~

...

~~(1614) Four (4) Three (3) UV sheetfed offset lithographic presses:~~

...

~~(c) One (1) Heidelberg UV sheetfed offset lithographic press identified as Press 238 with a maximum line speed of 434 feet per minute and a maximum printing width of 40 inches including six (6) units and coater, exhausting to one (1) stack SP-5V(N) used as cooling air for UV lamps.~~

~~(d)~~**(c)** One (1) Heidelberg UV sheetfed offset lithographic press identified as Press 239 with a maximum line speed of 473 feet per minute and a maximum printing width of 40 inches including two (2) units and coater, exhausting to one (1) stack SP-5W(N) used as cooling air for UV lamps.

South Plant:

...

(29) One (1) nonheatset, sheet-fed, offset lithographic printing press, identified as Press 251, approved for construction in 2007, with a maximum capacity of 18,000 sheets

(17.84 million square inches) per hour, exhausting to stack SP-7J(s).

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Printing Presses
North Plant:
...
(12) One (1) Harris web offset lithographic printing press with two (2) units and two (2) webs identified as Press 286 with a maximum line speed of 825 feet per minute and a maximum printing width of 31 inches, with associated in-line equipment, exhausting to one (1) stack SP-5L(N). The press may operate in either a heatset or nonheatset mode.
(13) One (1) Harris web offset lithographic printing press with four (4) units and two (2) webs identified as Press 287 with a maximum line speed of 825 feet per minute and a maximum printing width of 31 inches, with associated in-line equipment, exhausting to one (1) stack SP-5M(N). The press may operate in either a heatset or nonheatset mode.
...
(14) Four (4) Three (3) UV sheetfed offset lithographic presses:
...
(e) One (1) Heidelberg UV sheetfed offset lithographic press identified as Press 238 with a maximum line speed of 434 feet per minute and a maximum printing width of 40 inches including six (6) units and coater, exhausting to one (1) stack SP-5V(N) used as cooling air for UV lamps.
(d)(c) One (1) Heidelberg UV sheetfed offset lithographic press identified as Press 239 with a maximum line speed of 473 feet per minute and a maximum printing width of 40 inches including two (2) units and coater, exhausting to one (1) stack SP-5W(N) used as cooling air for UV lamps.
South Plant:
...
(29) One (1) nonheatset, sheet-fed, offset lithographic printing press, identified as Press 251, approved for construction in 2007, with a maximum capacity of 18,000 sheets (17.84 million square inches) per hour, exhausting to stack SP-7J(s).

D.3.1 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6] [326 IAC 2-7-10.5(d)(5)(A)] **[326 IAC 2-2]**

The following presses shall be limited as follows:

- (a) Press 240, Press 281, Press 245, Press 289, ~~Press 238~~, Press 239, Press 290, Press 291, Press 293, Press 294, Press 295, and Press 296:

...

- (e) Press 260, Press 261, Press 262, Press 273, Press 301, Press 302, Press 303, Press 304, Press 305, Press 306, **Press 251**, Press 268 and Press 269:

...

- (3) Heatset and Nonheatset Modes

In order to render 326 IAC 2-2 not applicable to the modifications performed under SSM 107-24571-00052 and MSM 107-25249-00052, the total VOC content delivered to the applicator of Presses 301, 302, 303, 304, 305, and 306, and 251 shall be limited such that VOC emitted shall not exceed ~~39~~ **39.9 tons per**

twelve (12) consecutive month period, with compliance determined at the end of each month. ~~Therefore, 326 IAC 2-2 does not apply.~~

For each presses **301 through 306**, VOC emitted shall be based on the following equation:

VOC emissions (tpy) =
(ink usage in heatset mode * VOC content * 80% flash off * 3% emitted after controls) + (ink usage in nonheatset mode * VOC content * 5% flash off) +
(fountain solution usage in heatset mode * VOC content * 100% flash off * 32.1% emitted after controls) + (fountain solution usage in nonheatset mode * VOC content * 100% flash off) + (manual cleaner usage * VOC content * 50% flash off) +
(automatic cleaner usage in heatset mode * VOC content * 61.2% emitted after controls) + (automatic cleaner usage in nonheatset mode * VOC content * 100% flash off)

For press 251, total VOC emitted shall be based on the following equation:

**VOC emissions (tpy) =
(ink usage * VOC content * 5% flash off) +
(fountain solution usage * VOC content * 100% flash off) +
(manual cleaner usage * VOC content * 50% flash off) +
(automatic cleaner usage * VOC content * 100% flash off)**

D.3.14 Record Keeping Requirements

(a) . . .

. . .

(2) The volume weighted VOC content of the nonheatset inks used on Presses 260, 261, 262, 273, 301, 302, 303, 304, 305, 306, **251**, 268, and 269 for each month;

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

Part 70 Quarterly Report

Source Name: R.R. Donnelley & Sons Company
Source Address: 1009 Sloan Street, Crawfordsville, IN 47933-2743
Mailing Address: 1009 Sloan Street, Crawfordsville, IN 47933-2743
Part 70 Permit No.: T107-5963-00052
Facility: Press 301, Press 302, Press 303, Press 304, Press 305, ~~and~~ Press 306, **and Press 251**
Parameter: VOC
Limit: **Total** VOC emissions shall not exceed a combined ~~39~~ **39.9** tons per year, based on the following equation:

For presses 301 through 306, VOC emissions =
(ink usage in heatset mode * VOC content * 80% flash off * 3% emitted after controls) +
(ink usage in nonheatset mode * VOC content * 5% flash off) +
(fountain solution usage in heatset mode * VOC content * 100% flash off *
32.1% emitted after controls) +
(fountain solution usage in nonheatset mode * VOC content * 100% flash off) +
(manual cleaner usage * VOC content * 50% flash off) +
(automatic cleaner usage in heatset mode * VOC content * 61.2% emitted after controls) +
(automatic cleaner usage in nonheatset mode * VOC content * 100% flash off)

For press 251, VOC emissions =
(ink usage * VOC content * 5% flash off) +
(fountain solution usage * VOC content * 100% flash off) +
(manual cleaner usage * VOC content * 50% flash off) +
(automatic cleaner usage * VOC content * 100% flash off)

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 107-25249-00052 and Significant Permit Modification 107-25364-00052. The staff recommend to the Commissioner that this Part 70 Minor Source Modification and Significant Permit Modification be approved.

**Appendix A: Emission Calculations
VOC Emissions from Printing Press 251**

Company Name: R. R. Donnelley & Sons Company
 Address: 1009 Sloan Street, Crawfordsville, IN 47933-2743
 MSM: 107-25249-00052
 Reviewer: ERG/ST
 Date: November 27, 2007

Printing Press Throughput				
Emission Unit	Description	Maximum Throughput (sheets/hr)	Maximum Print Area (in ²)	Throughput (MM in ² /year)
Printing Press 251	Nonheatset Lithographic Sheetfed Press	18,000	1,189	187,482

Ink, Coating, Fountain, and Solvent VOCs					
Material	Density (lbs/gal)	Max. Usage (gal/hr)	Weight % VOC	Flash Off %	PTE of VOC (tons/yr)
Ink (Worst Case - Blue)	9.57	4.45	1.24%	5%	0.12
Fountain Solution	8.72	0.34	18.1%	100%	2.35
Alcohol Substitute	7.91	0.09	99.9%	100%	3.12
Manual Cleaning Solvent	7.66	0.32	100%	50%	5.37
Automatic Cleaning Solvent	7.66	0.16	100%	100%	5.37
Coating	8.97	9.54	2.13%	100%	7.98
			Total		24.3

METHODOLOGY

PTE of VOC (tons/yr) = Density (lbs/gal) x Max. Usage (gal/hr) x Weight % VOC x Flash Off % x 8,760 hrs/yr x 1 ton/2,000 lbs

**Appendix A: Emission Calculations
HAP Emissions From Printing Press 251**

Company Name: R. R. Donnelley & Sons Company
 Address: 1009 Sloan Street, Crawfordsville, IN 47933-2743
 MSM: 107-25249-00052
 Reviewer: ERG/ST
 Date: November 27, 2007

Material	Ink, Coating, Fountain, and Solvent HAP Content (Weight %)					
	Density (lbs/gal)	Max. Usage (gal/hr)	Weight % Glycol Ethers	Weight % Toluene	Weight % Ethylene Glycol	Flash Off %
Ink (Worst Case - Blue)	9.57	4.45	0.00%	0.12%	0.00%	5%
Fountain Solution	8.72	0.34	10.0%	0.00%	0.00%	100%
Alcohol Substitute	7.91	0.09	0.00%	0.00%	30.0%	100%
Manual Cleaning Solvent	7.66	0.32	0.00%	0.00%	0.00%	50%
Automatic Cleaning Solvent	7.66	0.16	0.00%	0.00%	0.00%	100%
Coating	8.97	9.54	0.00%	0.00%	0.00%	100%

Material	Density (lbs/gal)	Max. Usage (gal/hr)	PTE of HAPs (tons/yr)			Total HAPs
			PTE of Glycol Ethers	PTE of Toluene	PTE of Ethylene Glycol	
Ink (Worst Case - Blue)	same as above		0.00	0.01	0.00	
Fountain Solution			1.30	0.00	0.00	
Alcohol Substitute			0.00	0.00	0.94	
Manual Cleaning Solvent			0.00	0.00	0.00	
Automatic Cleaning Solvent			0.00	0.00	0.00	
Coating			0.00	0.00	0.00	
Totals					1.30	

The cleaning solvent and coating contain no HAPs.

METHODOLOGY

PTE of HAPs (tons/yr) = Density (lbs/gal) x Max. Usage (gal/hr) x Weight % HAP x Flash Off % x 8,760 hrs/yr x 1 ton/2,000 lbs