



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: February 8, 2010

RE: R.R. Donnelley & Sons Company / 107-288871-00052

FROM: Matthew Stuckey, 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



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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February 8, 2010

Ms. Kimm Wheeler
R.R. Donnelley & Sons Company
600 West State Road 32
Crawfordsville, Indiana 47933

Re: Interim Significant Source Modification Petition Approval
107-28887I-00052

Ms. Wheeler:

On January 19, 2010, the Office of Air Quality (OAQ) received an interim Significant Source Modification petition from R.R. Donnelley & Sons Company, located at 600 West State Road 32, in Crawfordsville, for construction of two (2) heatset web offset lithographic printing presses and one (1) nonheatset sheetfed press.

A public notice of the interim Significant Source Modification petition was published in the Journal Review on January 16, 2010. The public comment period ended on January 30, 2010.

There were no comments received during the public comment period. This interim Significant Source Modification petition is in effect on February 4, 2010, and expires on the effective date of the final Significant Source Modification permit.

The interim Significant Source Modification petition may be revoked after the effective date upon a written finding by the Indiana Department of Environmental Management (IDEM) that any of the reasons for denial in 326 IAC 2-13-1(h) exist or if the final Significant Source Modification permit is denied. The IDEM has reviewed this interim Significant Source Modification petition and has not found any such reason. The facilities subject to this approval may not operate until the final Significant Permit Modification is issued by OAQ.

The interim Significant Source Modification petition is federally enforceable. Detailed construction and operation conditions will be specified in the final Significant Source Modification No. 107-28887-00052.

If you have any questions regarding this interim Significant Source Modification petition, please contact Stephanie Wilkerson, OAQ, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Stephanie Wilkerson or extension 4-5329, or dial 317-234-5329.

Sincerely,

Chrystal A. Wagner, Section Chief
Permits Branch
Office of Air Quality

Enclosure: Interim Permit Evaluation
sjw

cc: File – Montgomery County
Montgomery County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch

Indiana Department of Environmental Management Office of Air Management

Interim Significant Permit Revision / Significant Source Modification Evaluation Sheet

| | |
|---|---|
| Company Name: R.R. Donnelley & Sons Company - Crawfordsville | |
| Location: 600 State Road 32 West, Crawfordsville, IN 47933 | Permit No: T107-23664-00052 |
| Permit Reviewer: Stephanie Wilkerson | Date Receipt of Application: 1/19/2010 |
| | Date of review: 1/25/2010 |
| Description of the interim construction: Two (2) heatset web offset lithographic printing presses and one (1) nonheatset sheetfed printing press | |
| Public Notice Period = 1/16/2010 to 1/30/2010 | |
| Public Notice Date + 3 working days = 17 days = 2/3/2010 | |

Interim Petition Applicability: 326 IAC 2-13-1

- (a) Existing Source with valid permit;
- (b) Exemptions:
 - (1) construction of a PSD source or PSD modification;
 - (2) construction or modification in nonattainment area that would emit those pollutants for which the nonattainment designation is based.
 - (3) any modification subject to 326 IAC 2-4.1.
- (c) Public notice comment period is 14 calendar days.

Instructions: Check (✓) appropriate answers and make a recommendation.

1. Did the applicant submit a written petition for an interim significant permit revision or significant source modification?
 - Yes Go to question 2.
 - No Ignore verbal request.

2. Did the applicant pay the applicable interim permit fee? \$625 for TV, FESOP, and SSOA. \$500 for MSOP.
 - Yes Go to question 3.
 - No Deny the application, pursuant to 326 IAC 2-13-1(c)(1).

3. Did the applicant state acceptance of federal enforceability of an interim significant permit revision or significant source modification?
 - Yes Go to question 4.
 - No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(D).

4. Did the applicant or its authorized agent sign the application?
 - Yes Go to question 5.
 - No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(E).

5. Did the applicant submit a notarized affidavit stating that the applicant will proceed at its own risk (if the interim significant permit revision or significant source modification is issued), including, but not limited to:
- (a) Financial risk,
 - (b) Risk that additional emission controls may be required,
 - (c) Risk that the final significant permit revision or significant source modification may be denied.
- Yes Go to question 6.
 No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(F).
6. Did the applicant begin construction prior to submitting the interim significant permit revision or significant source modification application?
- Yes Deny the application, pursuant to 326 IAC 2-13-1(h)(6).
 No Go to question 7.
7. What is the type of the interim construction?
- New Source Deny the application, pursuant to 326 IAC 2-13-1(a)
 Modification to an existing source Go to question 8.
8. Did the applicant present data in the interim significant permit revision or significant source modification that is sufficient to determine PSD, NSPS, NESHAP, and state rule compliance?
- Yes Go to question 9.
 No Deny the application pursuant to:
326 IAC 2-13-1(c)(2)(B), for PSD;
326 IAC 2-13-1(c)(2)(C), for NSPS or NESHAP;
326 IAC 2-13-1(c)(2)(C), for state rules.
9. Is the proposed modification to be located in a nonattainment area?
- Yes Go to question 10.
 No Go to question 11.
- County: Montgomery County
10. Will the proposed modification emit the pollutant for which the area is nonattainment in quantities greater than the significant levels?
- Yes Deny the application, pursuant to 326 IAC 2-13-1(a)(2).
 No Go to question 11.
11. Did the petition include a complete description of the process?
- Yes Go to question 12.
 No Deny the petition, pursuant to 326 IAC 2-13-1(c)(2).
12. Did the interim significant permit revision or significant source modification petition contain conditions accepting either emission controls (baghouse, afterburners, scrubbers, etc.) or enforceable limits or other suitable restriction to avoid PSD applicability; as well as control parameters (incinerator operating temperature, baghouse pressure drop, etc.)? The specific limits must be explicitly spelled out (i.e.: The gas consumption of the boiler shall not exceed 29 million cubic feet per month.) A statement such as that the company agrees to conditions such that PSD rules are not applicable is not acceptable.
- Yes Go to question 13.
 No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(B).

13. Do the emission controls and/or throughput limits prevent PSD applicability?
 Yes Go to question 14.
 No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(B).
14. Will the modification, after application of all emission controls and/or throughput limitations comply with all applicable New Source Performance Standards (NSPS) (40 CFR 60)?
 Yes Go to question 15.
 No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(C).
15. Will the modification, after application of all emission controls and/or throughput limitations comply with all applicable National Emission Standards for Hazardous Air Pollutants (NESHAP)?
 Yes Go to question 16.
 No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(C).
16. Will the modification, after application of all emission controls and/or throughput limitations, comply with all applicable state rules?
 Yes Go to question 17.
 No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(C).
17. Does the applicant dispute applicability of any applicable state or federal rule?
 Yes Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(C).
 No Go to question 18.
18. Is there good reason to believe that the applicant does not intend to construct in accordance with the interim significant permit revision or significant source modification petition?
 Yes Deny the application, pursuant to 326 IAC 2-13-1(h)(1).
 No Go to question 19.
19. Is there good reason to believe that information in the petition has been falsified?
 Yes Deny the application, pursuant to 326 IAC 2-13-1(h)(7).
 No Approve the interim significant permit revision or significant source modification petition.
20. Has the petition been adequately public noticed? A proof of publication copy is necessary.
 Yes Go to question 21.
 No Deny the application, pursuant to 326 IAC 2-13-1(e).
- Newspaper: The Journal Review
Date of publication: 1/16/2010
21. Were comments received within seventeen (17) days after the public notice of the interim significant permit revision or significant source modification?
(14 calendar days for comment period + 3 working days for mailing)
 Yes Evaluate the comments received, and make a recommendation.
 No Issue the final interim significant permit revision or significant source modification approval.

Comments: _____

Recommendation: Issue approval for interim construction of two (2) new heatset offset web lithographic printing presses and one (1) nonheatset sheetfed printing press to source.

Date the applicant was informed of the decision: _____

Method of informing the applicant: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**PETITION FOR INTERIM SIGNIFICANT PERMIT REVISION, SIGNIFICANT SOURCE
MODIFICATION, MINOR PERMIT REVISION, OR MINOR SOURCE MODIFICATION**

Source Name: R.R. Donnelley & Sons Company
Source Address: 600 SR 32 West, Crawfordsville, IN 47933
Mailing Address: 2801 600 SR 32 West, Crawfordsville, IN 47933
SIC Code: 2732

Description of the Operation or Equipment:

The proposed modification will involve the installation of two (2) heatset web offset lithographic printing presses with add-on air pollution controls for VOC emissions reduction and one (1) nonheatset sheetfeed lithographic press. A detailed description of the equipment, including the maximum capacity of the process, maximum heating input rating of the equipment and air pollution control device operating specifications are provided in the application for a significant source modification that is being submitted concurrently with this petition.

Potential to Emit:

The VOC potential to emit is 47.2 tons/year based on the worst-case estimates. As noted below, emissions from this project will be limited to less than the PSD applicability threshold of 40 tons of VOC emissions per year through the use of an add-on VOC emission control system to reduce emissions from the heatset printing operations and by limiting emissions based on the amount and composition of VOC-containing materials consumed and documentation on a rolling monthly basis that emissions remain below the threshold. The methodology and calculations of the potential to emit before and after control are provided in detail in the attached application for a significant source modification.

PSD Requirements:

The application for this project includes a request for a federally enforceable condition to limit the emissions to less than the PSD applicability threshold of 40 tons of VOC emissions per year through the use of an add-on VOC emission control system to reduce emissions from heatset printing operations and by limiting emissions based on the amount and composition of VOC-containing materials consumed and documentation on a rolling monthly basis that emissions remain below the threshold. See the attached application for a significant source modification for detail.

NSPS Requirements:

There is no NSPS rule applicable to this operation or equipment.

revised 3/23/01 by drp

NESHAP Requirements:

There is no process-specific NESHAP rule applicable to this operation or equipment. By limiting the VOC emissions to less than the PSD threshold, HAP emissions from this project will be limited to less than 25 tons per year total HAP and 10 tons per year for any individual HAP so that 326 IAC 2-4.1-1 (New Source Toxics Control) will not be applicable. The application for this project includes a request for a federally enforceable condition to limit the HAP emissions less than these levels.

State Rules & Requirements:

There are no applicable state rules and requirements for the lithographic printing operations that are the subject of this petition

Specific state rules and requirements applicable to the proposed modification include:

- 326 IAC 5-1 Opacity Limitations
- 326 IAC 8-1-6 New Facilities; General Reduction Requirements

In addition, under the provisions of 326 IAC 2-7-5 (Permit Content) and 326 IAC 2-7-6 (Compliance Requirements), IDEM may impose certain requirements sufficient to assure compliance with all applicable requirements and any additional requirement that is enforceable by the state at the time of a Part 70 with all applicable requirements and any additional requirement that is enforceable by the state assure compliance with the terms and conditions of the revised Part 70 permit that will be issued for this modification .

326 IAC 2-2 Prevention of Significant Deterioration (PSD) and that 326 IAC 2-4.1-1 (New Source Toxics Control) requirements will not be applicable to this modification as noted above. In addition, there are no applicable NSPS or NESHAP regulations for this modification.

Federal Enforceability:

The company consents to the federal enforceability of this interim petition.

Signature: 
Printed Name: Stephen G. Seamans
Title or Position: Vice President of Manufacturing
Phone No.: (765) 364-2222
Date: 1-15-10

Affidavit of Construction

I, Stephen G. Seamans, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in Hamilton County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of Vice President of Manufacturing for R.R. Donnelly & Sons Company.
(Title) (Company Name)
3. By virtue of my position with of R.R. Donnelly & Sons Company, I have personal
(Company Name) knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of R.R. Donnelly & Sons Company.
(Company Name)
4. I, the undersigned, have submitted an interim significant permit revision and significant source modification petition to the Office of Air Quality for the construction of two heatset web offset lithographic presses and one sheetfed lithographic press.
5. R.R. Donnelly & Sons Company recognizes the following risks:
(Company Name)
(a) own financial risk, (b) that IDEM may require additional or different control technology for the final approval, (c) that IDEM may deny issuance of the final approval, and
(d) any additional air permitting requirements.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature: *S.G. Seamans*
 Printed Name: Stephen G. Seamans
 Phone No.: (765) 364-2222
 Date: 1/15/10

STATE OF INDIANA)

)SS
COUNTY OF Montgomery

Subscribed and sworn to me, a notary public in and for Montgomery County and
 State of Indiana on this 15th day of January, 2010.
 My Commission expires: 5/14/2015

Signature: *M. Alice Conrod*
 Printed Name: M. Alice Conrod

revised 3/23/01 drp

**Indiana Department of Environmental Management
Office of Air Quality**

Interim Petition Checklist

Instructions: (a) Please answer yes or no.
(b) Enclose this checklist with the completed interim petition package.

Company Name: **R.R. Donnelley & Sons Company**

Location: **600 SR 32 West, Crawfordsville, IN 47933**

| | | |
|-----|-----|--|
| Yes | 1. | Is the written interim petition prepared? |
| Yes | 2. | Is the written petition signed and dated? |
| Yes | 3. | Is the public notice drafted? |
| Yes | 4. | Is the \$625 filing and review fee enclosed? |
| Yes | 5. | Is the account number written on the check or money order? |
| Yes | 6. | Is the Affidavit of Construction signed, dated, and notarized? |
| Yes | 7. | Is the proposed modification/revision described in detail? |
| Yes | 8. | Is the proposed modification/revision a modification or addition to an existing source? |
| Yes | 9. | Is the proposed modification/revision located in an attainment area for all the criteria pollutants? |
| No | 10. | Is the proposed modification/revision located in a nonattainment area? If yes, answer No. 11. |
| N/A | 11. | Is the pollutant, which the nonattainment designation is based on, going to be emitted in this proposed modification/revision? |
| Yes | 12. | Are potential emissions calculated? |
| Yes | 13. | Is federal enforceability consent specifically indicated? |
| Yes | 14. | Are specific conditions, limitations, and/or restrictions included that preclude applicability of PSD? |
| Yes | 15. | Are specific conditions, limitations, and/or restrictions included that preclude applicability of NSPS? |
| Yes | 16. | Are specific conditions, limitations, and/or restrictions included that preclude applicability of NESHAP? |
| Yes | 17. | Are specific conditions, limitations, and/or restrictions included that assure compliance with all applicable state air pollution rules? |
| Yes | 18. | Has a regular modification/revision permit application been submitted to OAQ? |
| N/A | 19. | Is a regular modification/revision permit application going to be submitted to OAQ? If yes, indicate approximate date of submission: |
| No | 20. | Has the proposed modification/revision commenced prior to the submission of the interim permit petition? |
| Yes | 21. | The interim petition comment period has been decided to be: 14 calendar days |

Additional Comments:

A regular modification/revision permit application is being submitted to OAQ concurrently with this petition.

Proof of publication of the public notice will be submitted to OAQ under separate cover. Public notice as submitted for publication is included.

PROOF OF PUBLICATION

State of Indiana
County of Montgomery

} ss:

Before me a Notary Public in and for the County of Montgomery and State of Indiana, personally appeared, **Sean Smith**, who being duly sworn upon his oath, deposes and says, that he is Publisher of the **Crawfordsville Journal Review**, a public daily newspaper of general circulation in Montgomery County, State of Indiana, printed in the English language and printed and published daily at 119 North Green Street in the City of Crawfordsville, Montgomery County, State of Indiana and that said Journal Review has been published continuously for more than five years last past, in said City and County; that the Notice of Publication, a true copy of which is hereto annexed was duly published in

said newspaper, for

.....insertions, successively
which publications were made as follows:

First publication on the 16 day of January, 2010
Second publication on the day of
.....200.....
Third publication on the day of
.....200.....
Fourth publication on the day of
.....200.....

And that all of said publications were made in full compliance with the law.



Subscribed and sworn to before me this 16 day of January, 2010

Betty R. Hartman
Notary Public

My commission expires July 31, 2017
Publisher's Fee 103.02

NOTICE OF 14-DAY PERIOD FOR PUBLIC COMMENT
Proposed Approval of Interim Significant Permit Revision/Significant Source Modification for R.R. Donnelley & Sons Company in Montgomery County, Indiana is hereby given that the above company, located at 600 SR 32 St, Crawfordsville, Indiana, has made application to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAG) for an interim permit to construct two heatset web offset lithographic printing presses with thermal oxidizers as air pollution control and one nonheatset, sheetfed lithographic press. Based on 8,760 hours per year of operation, the VOC emissions are 46.2 lbs per year, respectively. The facility has requested a VOC emissions limitation of less than 40 tons per year based on a rolling 12-month total. A company has submitted an application for a significant permit revision/significant source modification. The OAG shall review the application in accordance with the Permit Review Rules. Operation of the source cannot commence until a valid operating permit is issued. The construction of the proposed project is entirely at the applicant's own risk. Notice is hereby given that there will be a period of 14 days from the date of publication of this notice during which any interested person may comment on why this interim permit should or should not be issued. Appropriate comments should be related to air quality issues, interpretation of the applicable state and federal rules, calculations, legal, technical issues, or the effect that the operation of this facility would have on any aggrieved individuals. A copy of the application staff review is available for examination at the Crawfordsville Metropolitan Public Library, 205 South Washington Street, Crawfordsville, Indiana. All comments, along with supporting documentation, shall be submitted in writing to the IDEM, OAG, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, IN 46204-2251. Persons not wishing to comment at this time, but wishing to receive notice of future proceedings conducted related to this action, must submit a written request to the Office of Air Quality (OAG) at the above address. All interested parties of record will receive notice of decision on this matter and will then have 15 days after receipt of Notice of Decision to file a petition for administrative review. Procedures for filing such a petition will be enclosed with the Notice. Questions should be directed to OAG, 100 North Senate Avenue, MC 61-53, Room 1003, Indianapolis, Indiana 46204-2251, or call (317) 451-6027 or (317) 233-0178.
Stephen G. Seamans
Company Official
765-364-2222
1/16/10

Appendix C Project Description

Equipment Description

The project described in this application involves the installation of two new heatset web offset lithographic printing presses and one new nonheatset sheeted press at the South Plant of the R.R. Donnelley & Sons Company (Donnelley) facility in Crawfordsville. All three presses are being relocated to the Crawfordsville facility from printing facilities that are ceasing operations.

The two heatset presses, designated as 263 and 264, will be 4-unit presses, capable of operating at a maximum speed of 1,200 feet per minute and a maximum printing width of 34 inches, each equipped with two natural gas-fired dryers. Installation is scheduled to begin February 1, 2010. Emissions from the heatset presses will be controlled by the existing high efficiency regenerative thermal oxidizer system to minimize VOC and HAP emissions from the press operation consistent with best available control technology. The oxidizer system has adequate capacity to control the emissions from the existing presses as well as proposed presses 263 and 264.

The sheetfed press, designated as 252, will be 8-unit press with aqueous coating unit, capable of operating at a maximum speed of 13,000 feet per minute and a maximum printing area of 28"x40". Installation of this first press is scheduled to begin March 1, 2010. As a nonheatset press, no emissions control device will be utilized.

Permit History and New Source Review

Prior to submitting this application, Donnelley initiated discussions with Chrystal Wagner and Matt Stuckey of the IDEM Office of Air Quality regarding previously permitted equipment at this facility and New Source Review considerations of this project in relationship with recent permit modifications. These permit modifications, Significant Source Modification 107-24571-00052, issued on October 1, 2007, and Minor Source Modification 107-5963-00052, issued on November 30, 2007, authorized the installation of six heatset web offset lithographic presses, a nonheatset sheetfed lithographic press and two regenerative thermal oxidizers to be installed over the period of 2007 through 2010. Based on the timing of the current project, Donnelley initiated the discussions with the IDEM Office of Air Quality to clarify that the current project was unrelated to the previous permit modifications and that the emissions from the current project should not be aggregated with the allowable emissions limit in the previous permit modifications in establishing New Source Review applicability. Based on discussions with Mr. Stuckey, documentation is provided here describing the projects and their approval dates to clarify that these projects are clearly separate.

The presses permitted under permit modifications 107-24641-00052 and 107-25249-00052 were installed as part of a project that received final internal approval on June 18, 2007. This project was initiated to upgrade the presses in operation at the facility with modern, state-of-the-art presses to increase capacity, productivity and quality at the Crawfordsville plant.

The current project, which was not under consideration at the time the projects to install the presses described above, involves relocation of used equipment from other printing facilities that are closing. The two heatset presses are being moved from the Donnelley Spanish Fork, Utah facility that is closing so that the Donnelley can relocate and continue to produce the work for the customer whose product is currently printed on these presses. The sheetfed press is being moved to Crawfordsville as the result of a non-Donnelley plant that is scheduled to close on January 18, 2010. The customer whose work is produced on that press has requested that Donnelley relocate the press to continue printing the work at Crawfordsville. Final internal approval for these presses, which was initiated in December 2009, is pending.

Process Emissions

Based on the anticipated materials consumption, the VOC content of the materials, standard capture and retention factors based on USEPA guidance, and the efficiency of the pollution control devices, we are requesting an enforceable emissions limitation of less than 40 tons of VOC emissions from presses 252, 263 and 264 combined. (Attachment 1 of the application includes the estimated maximum emissions from the press operation.) Therefore, this application does not trigger the requirements of the Prevention of Significant Deterioration (PSD) program of 326 IAC 2-2 Rule 2. However, as the potential to emit exceeds 25 tons of VOC per year, the Best Available Control Technology (BACT) requirements of 326 IAC 8-1-6 do apply to presses 263 and 264. A review

Technology (BACT) requirements of 326 IAC 8-1-6 do apply to presses 263 and 264. A review of BACT based on recent determinations for heatset lithographic printing presses is included in the application. As the potential to emit from press 252 is less than 25 tons of VOC per year, no BACT analysis is included for this press.

BACT Rationale

The proposed installation includes two (2) heatset web lithographic printing presses, applying inks and related coatings to a paper substrate through the use of the offset lithographic printing process. Volatile Organic Compound (VOC) emissions result from the use of inks and coatings, fountain solution additives, and cleaning solvents.

We propose that BACT for the heatset web lithographic printing process be defined as a pollution control device for the press dryer exhaust combined with low VOC and/or low vapor pressure materials as follows:

- Fountain Solution – VOC no greater than 5% VOC as applied
- Blanket and Roller Washes – Vapor pressure no greater than 10 mm Hg at 20° C or 2.5 lb/gal as applied
- Regenerative Thermal Oxidizer – Minimum 97% destruction efficiency for VOC

In heatset web lithographic printing, the inks set by volatilization of the ink oil VOC at elevated temperature (approximately 300-350°F) in natural gas fired press dryers. The VOCs are evolved from the process in the dryer, which operates under negative pressure relative to the surrounding pressroom, and are exhausted from the dryer to a pollution control device. Add-on pollution controls that are used with this process include catalytic oxidizers, recuperative thermal oxidizers and regenerative thermal oxidizers.

A review of EPA's RACT/BACT/LAER Clearinghouse for the past several years revealed only a few instances where BACT or LAER determinations have been made for heatset lithographic printing operations. The most recent determinations are summarized in Forms BACT-01 and BACT-01a. The BACT or LAER determination has been based on the use of an add-on control device, frequently combined with requirements for low VOC fountain solutions (generally < 5% VOC in the as-applied fountain solution) and low VOC (30% VOC or less) or low vapor pressure (VOC composite vapor pressure of 10 mm Hg or less at 20°C) cleaning solvents.

Review of the information in Forms BACT-01 and BACT-01a reveals that add-on control devices with destruction efficiencies of 97% to 97.5% have been established as BACT or LAER for heatset lithographic printing operations. Consistent with these previous determinations, and to minimize the VOC emissions from presses 263 and 264, we are proposing that a regenerative thermal oxidizer with a minimum destruction efficiency of 97% be established as BACT for these presses. This level of control was established for the regenerative thermal oxidizer system with the issuance of Significant Source Modification 107-24571-00052. This oxidizer system will be used to control the emissions from the new presses. [Note: an application to replace the thermal oxidizer at the North Plant of the Crawfordsville facility was recently submitted to IDEM and has been assigned Permit Number 107-28851-00052. This oxidizer replacement project is unrelated to the press installation that is the subject of this application and does not involve the oxidizer system that will control the emissions from the new presses.]

We believe that the emission reductions achieved with the regenerative thermal oxidizer system, combined with the materials proposed for use on the heatset presses, are consistent with the BACT or LAER determinations at other heatset lithographic printing operations. The most recent LAER determination (GA-0111, April 26, 2005) was based on use of a 97% efficient pollution control device and limitations on the VOC content and/or vapor pressure of press ready cleaning solvents. Other BACT determinations have included VOC content limitations for as-applied fountain solutions.

Review of the materials anticipated to be used on the heatset presses confirms that the fountain solutions and cleaning solvents proposed for use on these presses are consistent with the requirements of other BACT and LAER determinations. Since the materials anticipated to be used on these presses satisfy the low VOC or low vapor pressure requirements that have been the basis for previous other BACT and LAER determinations for this process, we request that BACT be established as use the proposed pollution control efficiencies and use of "compliant" materials.

Proposed Permit Conditions

Attachment 1 of this application includes proposed language to modify the conditions in the current Title V Operating Permit 107-23664-00052 to add the new presses included in this application.

Attachment 4

Suggested Revisions to Permit 107-23664-00052

The following additions are required in Condition A.4 (Specifically Regulated Insignificant Activities) and in Section D.3 (Facility Operation Conditions, Facility Description [326 IAC 2-7-5(15)]: Printing Presses, South Plant):

- (uu) One (1) Heidelberg web offset lithographic printing press, identified as Press 263, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting through stacks SP-5T(S), SP-7A(S) and/or SP-7B(S), maximum line speed: 1,200 feet per minute, maximum printing width: 34 inches, with associated in-line equipment.
- (vv) One (1) Heidelberg web offset lithographic printing press, identified as Press 264, with VOC emissions controlled by a natural gas-fired regenerative thermal oxidizer system, exhausting through stacks SP-5T(S), SP-7A(S) and/or SP-7B(S), maximum line speed: 1,200 feet per minute, maximum printing width: 34 inches, with associated in-line equipment.
- (ww) One (1) nonheatset, sheet-fed, offset lithographic printing press, identified as Press 252, with a maximum capacity of 13,000 sheets (14.56 million square inches) per hour, exhausting to stack SP-10C.

Condition D.3.1 (Volatile Organic Compounds (VOCs) [326 IAC 8-1-6] [326 IAC 2-7-10.5(d) (5) (A)]) should be modified as follows:

- (e) Pursuant to 326 IAC 8-1-6 and Significant Permit Modification 107-24641-00052 issued on October 19, 2007, the Best Available Control Technology (BACT) for the twelve (12) presses, identified as Press 268, Press 269, Press 260, Press 261, Press 262, Press 273, Press 210, Press 211, Press 212, Press 213, Press 214, ~~and Press 215, Press 263 and Press 264~~ shall be as follows:
 - (1) 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, 210, 211, 212, 213, 214, ~~and 215, 263 and 264~~ 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, 210, 211, 212, 213, 214, ~~and 215, 263 and 264~~ 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 210, 211, 212, 213, 214, and 215, 263 and 264 shall not contain greater than 5.0% VOC content by weight, as applied.

- (D) The solvents used for blanket and roller washes by Presses 210, 211, 212, 213, 214, and 215, 263 and 264 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°C, 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 210, 211, 212, 213, 214, and 215, 263 and 264 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°C, or
 - (ii) The solvent shall not contain greater than 2.5 pounds of VOC per

gallon, as applied.

- (2) When operating any of Presses 260, 261, 262, 273, 210, 211, 212, 213, 214, 215, 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°C, 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°C, or
 - (ii) The solvent shall not contain greater than 2.5 pounds of VOC per gallon, as applied.
- (3) Pursuant to Minor Permit Modification 107-25364-00052 issued on February 12, 2008, the total VOC content delivered to the applicator of Presses 210, 211, 212, 213, 214, 215, and 251 shall be limited such that VOC emitted shall not exceed 39 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

For presses 210 through 215, VOC emitted shall be based on the following equation:

$$\begin{aligned} &\text{VOC emissions (tpy)} = \\ &(\text{ink usage in heatset mode} * \text{VOC content} * 80\% \text{ flash off} * 3\% \text{ emitted} \\ &\text{after controls}) + (\text{ink usage in nonheatset mode} * \text{VOC content} * 5\% \text{ flash} \\ &\text{off}) + (\text{fountain solution usage in heatset mode} * \text{VOC content} * 100\% \\ &\text{flash off} * 32.1\% \text{ emitted after controls}) + (\text{fountain solution usage in} \\ &\text{nonheatset mode} * \text{VOC content} * 100\% \text{ flash off}) + (\text{manual cleaner} \\ &\text{usage} * \text{VOC content} * 50\% \text{ flash off}) + (\text{automatic cleaner usage in} \\ &\text{heatset mode} * \text{VOC content} * 61.2\% \text{ emitted after controls}) + (\text{automatic} \\ &\text{cleaner usage in nonheatset mode} * \text{VOC content} * 100\% \text{ flash off}) \end{aligned}$$

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

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

Compliance with these requirements satisfies the Best Available Control Technology (BACT) requirement in 326 IAC 8-1-6 for both heatset and nonheatset modes.

- (4) The total VOC content delivered to the applicator of Presses 263, 264, and 252 shall be limited such that VOC emitted shall not exceed 39 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

For presses 263 and 264, VOC emitted shall be based on the following equation:

$$\text{VOC emissions (tpy)} = \frac{(\text{ink usage} * \text{VOC content} * 80\% \text{ flash off} * 3\% \text{ emitted after controls}) + (\text{fountain solution usage} * \text{VOC content} * 100\% \text{ flash off} * 32.1\% \text{ emitted after controls}) + (\text{manual cleaner usage} * \text{VOC content} * 50\% \text{ flash off})}{1}$$

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

$$\text{VOC emissions (tpy)} = \frac{(\text{ink usage} * \text{VOC content} * 5\% \text{ flash off}) + (\text{fountain solution usage} * \text{VOC content} * 100\% \text{ flash off}) + (\text{manual cleaner usage} * \text{VOC content} * 50\% \text{ flash off}) + (\text{automatic cleaner usage} * \text{VOC content} * 100\% \text{ flash off})}{1}$$

Compliance with these requirements satisfies the Best Available Control Technology (BACT) requirement in 326 IAC 8-1-6.

Condition D.3.9 (Thermal Oxidizers [326 IAC 8-1-6] [40 CFR 64.1]) should be modified as follows:

- (a) The North Oxidizer shall operate at all times that either of the two (2) presses, identified as Press 268 and Press 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 ~~ten (10)~~ twelve (12) presses, identified as Press 260, Press 261, Press 262, Press 273, Press 210, Press 211, Press 212, Press 213, Press 214, ~~and Press 215, Press 263, and Press 264~~ 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.

A new Part 70 Quarterly Report Form for Press 263, 264 and 251 is requires, as follows:

**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 263, Press 264, and Press 252
 Parameter: VOC Emissions
 Limit: Total VOC emissions shall not exceed a combined 39 tons per year, based on the following equation:

For presses 263 and 264, VOC emissions =
(ink usage * VOC content * 80% flash off * 3% emitted after controls) +
(fountain solution usage * VOC content * 100% flash off * 32.1% emitted after controls) +
(manual cleaner usage * VOC content * 50% flash off)

For press 252, 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)

YEAR: _____

| <u>Month</u> | <u>Column 1</u> | <u>Column 2</u> | <u>Column 1 + Column 2</u> |
|----------------|-------------------|---------------------------|----------------------------|
| | <u>This Month</u> | <u>Previous 11 Months</u> | <u>12 Month Total</u> |
| <u>Month 1</u> | | | |
| <u>Month 2</u> | | | |
| <u>Month 3</u> | | | |

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
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Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Kimm Wheeler
R.R. Donnelley & Sons Company
600 SR 32 W
Crawfordsville, IN 47933

DATE: February 8, 2010

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
Interim Significant Source Modification
107-288871-00052

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Stephen Seamans (VP - Mfg.)
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

Mail Code 61-53

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|----------------------------|---|---|---|--|
| IDEM Staff | MIDENNEY 2/8/2010 R.R. Donnelley & Sons Company 288871 (final) | | Type of Mail: CERTIFICATE OF MAILING ONLY | AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING |
| Name and address of Sender |  | Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204 | | |

| Line | Article Number | Name, Address, Street and Post Office Address | Postage | Handing Charges | Act. Value (If Registered) | Insured Value | Due Send if COD | R.R. Fee | S.D. Fee | S.H. Fee | Rest. Del. Fee | Remarks |
|------|----------------|--|---------|-----------------|----------------------------|---------------|-----------------|----------|----------|----------|----------------|---------|
| 1 | | Kimm Wheeler R.R. Donnelley & Sons Company 600 SR 32 W Crawfordsville IN 47933 (Source CAATS) via confirmed delivery | | | | | | | | | | |
| 2 | | Stephen G Seamans VP - Mfg R.R. Donnelley & Sons Company 600 SR 32 W Crawfordsville IN 47933 (RO CAATS) | | | | | | | | | | |
| 3 | | Crawfordsville City Council and Mayors Office 300 E. Pike St Crawfordsville IN 47933 (Local Official) | | | | | | | | | | |
| 4 | | Montgomery County Health Department 110 W. South Blvd Suite 100 Crawfordsville IN 47933-3351 (Health Department) | | | | | | | | | | |
| 5 | | Mr. Charles L. Berger Berger & Berger, Attorneys at Law 313 Main Street Evansville IN 47700 (Affected Party) | | | | | | | | | | |
| 6 | | Mr. Robert Ford RR 1, Box 233 New Ross IN 47968 (Affected Party) | | | | | | | | | | |
| 7 | | Ms. Magje Read P.O. Box 248 Battle Ground IN 47920 (Affected Party) | | | | | | | | | | |
| 8 | | Montgomery County Commissioner 110 West South Boulevard Crawfordsville IN 47933 (Local Official) | | | | | | | | | | |
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