



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: June 13, 2005
RE: Foster Printing Service, Inc / 091-21183-00114
FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Registration

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 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires 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, 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
FN-REGIS.dot 1/10/05



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

Mitchell E. Daniels, Jr.
Governor

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Nick Griswold
Foster Printing Service, Inc.
4295 S. Ohio Street
Michigan City, IN 46360

June 13, 2005

Re: Registration No. 091-21183-00114
Registration Revision
Plant ID: 091-00114

Dear Mr. Griswold:

Foster Printing Service, Inc. was issued a permit registration (091-18311-00114) on December 11, 2003, for a printing operation. Foster Printing Service, Inc. submitted a registration revision on April 28, 2005. The letter was submitted to determine if Foster Printing Service, Inc. can continue to operate under existing registration 091-18311-00114 when removing two existing 5C sheet-fed printing presses and replacing them with one new 6C Komori sheet-fed printing press.

The following emission units are registered:

- (a) One (1) Heidelberg GTO 1/color 20" offset printing press.
- (b) One (1) Solna 164 1/color 25" offset printing press.
- (c) One (1) 6C Komori offset printing press.
- (d) One (1) Diddle Model 2355S 20" 5/color heatset web offset printing press.
- (e) One (1) Heidelberg 8/color sheetfed offset printing press.
- (f) One (1) natural gas fired dryer rated at 1.1 MMBtu/hr.
- (g) One (1) Inkjet printing system consisting of two (2) video inkjets.

The following conditions shall be applicable:

- (1) 326 IAC 5-1-2 (Opacity Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity) monitor in a six (6) hour period.

- (2) Any change or modification which may increase the potential to emit a combination of HAPs, VOC, NOx, SO2, PM or PM10 to twenty five (25) tons per year, or a single HAP to ten (10) tons per year, from this source shall require approval from IDEM, OAQ prior to making the change.

This registration is the fourth air approval issued to this source. All previous approvals are superseded as they have been included in this registration. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

**Compliance Data Section
Office of Air Quality
100 North Senate Avenue
Indianapolis, IN 46204**

no later than March 1st of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Questions should be directed to Lawrence Stapf, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204, or call (800) 451-6027, or extension 2-8427, or dial (317) 232-8427 and ask for Lawrence Stapf.

Sincerely,
Original signed by

Nisha Sizemore, Section Chief
Permits Branch
Office of Air Quality

Attachments

LS

cc: File – LaPorte County
LaPorte County Health Department
Air Compliance – Letty Zepeda
Northwest Regional Office
Permit Tracking

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Registration Revision

Source Background and Description

Source Name: Foster Printing Service, Inc.
Source Location: 4295 S. Ohio Street, Michigan City, IN 46360
County: LaPorte
SIC Code: 2752
Operation Permit No.: 091-21183-00114
Permit Reviewer: LStapf

The Office of Air Quality (OAQ) has reviewed a letter application from Foster Printing Service, Inc. relating to the construction and operation of offset lithographic printing presses and inkjet printing operation.

Permitted Emission Units and Pollution Control Equipment

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

- (a) One (1) Heidelberg GTO 1/color 20" offset printing press.
- (b) One (1) Solna 164 1/color 25" offset printing press.
- (c) Two (2) Heidelberg 1.2F 5/color 40" offset printing presses.
- (d) One (1) Diddle Model 2355S 20" 5/color heatset web offset printing press.
- (e) One (1) Heidelberg 8/color sheetfed offset printing press.
- (f) One (1) natural gas fired dryer rated at 1.1 MMBtu/hr.
- (g) One (1) Inkjet printing system consisting of two (2) video inkjets.

New Emission Units and Pollution Control Equipment

The source consists of the following new emission unit and pollution control device during this registration revision process:

- (a) One (1) 6C Komori offset printing press.

Note that the new unit will replace the existing units in "(c)" above.

Unpermitted Emission Units and Pollution Control Equipment

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

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Construction and Operation Permit No. 091-3497-00071, issued April 4, 1994.
- (b) Registration No. 091-9400-00114, issued February 27, 1998.
- (c) Registration No. 091-18311-00114, issued December 11, 2003.

All conditions from previous approvals / registrations were incorporated into this registration.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

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

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

A letter application for the purposes of this review was received on April 28, 2005.

Emission Calculations

The calculations are included in Appendix A (pages 1 to 7).

Uncontrolled Potential Emissions of the Source After Modification

The table reflects the unrestricted potential to emit.

| Pollutant | Potential To Emit (tons/year) |
|-----------------|-------------------------------|
| PM | 0.00 |
| PM-10 | 0.00 |
| SO ₂ | 0.00 |
| VOC | 17.48 |
| CO | 0.40 |
| NO _x | 0.70 |

| HAPs | Potential To Emit (tons/year) |
|---------------------|-------------------------------|
| Single HAP (Xylene) | 7.35 |
| Total HAPs | 10.71 |

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of criteria pollutants is less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of VOC is greater than levels listed in 326 IAC 2-1.1-3(d)(1), therefore the source is subject to the provisions of 326 IAC 2-5.5.1. A registration will be issued.
- (d) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year, therefore, the source is not subject to the provisions of 326 IAC 2-7.

County Attainment Status

The source is located in LaPorte County.

| Pollutant | Status |
|-----------------|------------|
| PM-10 | attainment |
| PM-2.5 | attainment |
| SO ₂ | attainment |
| NO ₂ | attainment |
| Ozone | attainment |
| CO | attainment |
| Lead | attainment |

Federal Rule Applicability

- (a) This source is not subject to the requirements of 40 CFR 60, Subpart QQ, Standards of Performance for the Graphics Arts Industry: Publication Rotogravure Printing. This standard applies to each publication rotogravure printing press, that commenced construction, modification or reconstruction after October 28, 1980. This source does not have any rotogravure printing presses and therefore, not subject to the requirements of this rule.
- (b) This source is not subject to the requirements of 40 CFR 63.820, Subpart KK - National Emission Standard for the Printing and Publishing Industry. This standard applies to major source of hazardous air pollutants (HAPs), at which publication rotogravure, product and packaging rotogravure or wide-web flexographic printing presses are operated. The printing presses at this source are not subject to the NESHAP, because they are not publication, product and packaging rotogravure printing presses, or wide-web flexographic printing presses, and they are not major for single HAP and combined HAPs.

State Rule Applicability - Entire Source

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

The source emits less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1-1 does not apply.

326 IAC 2-6 (Emission Reporting)

This source is located in LaPorte County which is not one of the specifically listed counties, nor does the source have the potential to emit CO, VOC, NO_x, PM10 (including fugitive emissions), or SO₂ in amounts at or exceeding one-hundred (100) tons per year. Therefore, the requirements of 326 IAC 2-6 do not apply to the source.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary

Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

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

State Rule Applicability - Individual Facilities

326 IAC 8-1-6 (Volatile Organic Compounds)

This source is not subject to this rule. This rule applies to facilities constructed after January 1980, which have potential VOC emissions of 25 tons or more per year, and are not regulated by any other provisions of 326 IAC 8. All the facilities at this source were constructed after January 1980, but each has potential VOC emissions of less than 25 tons per year, therefore, this rule does not apply.

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

This rule applies to packaging rotogravure, publication rotogravure, and flexographic printing sources existing as of November 1, 1980, whose potential emissions of volatile organic compounds (VOC) are greater than one hundred (100) tons per year, or new sources after November 1, 1980, located anywhere in the state, with potential emissions of twenty-five (25) tons per year or more VOC. This rule does not apply because the new printing press is not a rotogravure or flexographic printing press and has potential emissions less than 25 tons per year.

Conclusion

The construction and operation of this lithographic printing press operation shall be subject to the conditions of the attached Registration No. 091-21183-00114.

Appendix A: Emission Calculations

Company Name: Foster Printing Service, Inc.
Address City IN Zip: 4295 S. Ohio Street, Michigan City, IN 46360
Permit No.: 091-21183-00114
Reviewer: LStapf
Date: May 26 2005

| Uncontrolled Potential Emissions (tons/year) | | | |
|---|------------------|-------------|---------------|
| Emissions Generating Activity | | | |
| Pollutant | Printing Presses | Natural Gas | TOTAL |
| PM | 0.00 | 0.00 | 0.00 |
| PM10 | 0.00 | 0.00 | 0.00 |
| SO2 | 0.00 | 0.00 | 0.00 |
| NOx | 0.00 | 0.70 | 0.70 |
| VOC | 17.48 | 0.00 | 17.48 |
| CO | 0.00 | 0.40 | 0.40 |
| total HAPs | 10.71 | negl. | 10.71 |
| worst case single HAP | 7.35 (Xylene) | negl. | 7.35 (Xylene) |
| See attached spreadsheets from source for full calculations. | | | |
| Total emissions based on rated capacity at 8,760 hours/year. | | | |
| Controlled Potential Emissions (tons/year) | | | |
| Emissions Generating Activity | | | |
| Pollutant | Printing Presses | Natural Gas | TOTAL |
| PM | 0.00 | 0.00 | 0.00 |
| PM10 | 0.00 | 0.00 | 0.00 |
| SO2 | 0.00 | 0.00 | 0.00 |
| NOx | 0.00 | 0.70 | 0.70 |
| VOC | 17.48 | 0.00 | 17.48 |
| CO | 0.00 | 0.40 | 0.40 |
| total HAPs | 10.71 | negl. | 10.71 |
| worst case single HAP | 7.35 (Xylene) | negl. | 7.35 (Xylene) |
| See attached spreadsheets from source for full calculations. | | | |
| Total emissions based on rated capacity at 8,760 hours/year, after control. | | | |

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

Company Name: Foster Printing Service, Inc.
Address City IN Zip: 4295 S. Ohio Street, Michigan City, IN 46360
Permit No.: 091-21183-00114
Reviewer: LStapf
Date: May 26 2005

Heat Input Capacity Potential Throughput
MMBtu/hr MMBtu/yr

1.1 9.6
One (1) natural gas fired dryer rated at 1.1 MMBtu/hr

| | Pollutant | | | | | |
|-------------------------------|-----------|-------|-----|----------------------|-----|------|
| | PM* | PM10* | SO2 | NOx | VOC | CO |
| Emission Factor in lb/MMCF | 1.9 | 7.6 | 0.6 | 140.0 **see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 0.4 |

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 3 for HAPs emissions calculations.

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: Foster Printing Service, Inc.
Address City IN Zip: 4295 S. Ohio Street, Michigan City, IN 46360
Permit No.: 091-21183-00114
Reviewer: LStapf
Date: May 26 2005

HAPs - Organics

| | | | | | |
|-------------------------------|--------------------|----------------------------|-------------------------|-------------------|--------------------|
| Emission Factor in lb/MMcf | Benzene 2.1E-03 | Dichlorobenzene 1.2E-03 | Formaldehyde 7.5E-02 | Hexane 1.8E+00 | Toluene 3.4E-03 |
| Potential Emission in tons/yr | 1.012E-05 | 5.782E-06 | 3.614E-04 | 8.672E-03 | 1.638E-05 |

HAPs - Metals

| | | | | | |
|-------------------------------|-----------------|--------------------|---------------------|----------------------|-------------------|
| Emission Factor in lb/MMcf | Lead 5.0E-04 | Cadmium 1.1E-03 | Chromium 1.4E-03 | Manganese 3.8E-04 | Nickel 2.1E-03 |
| Potential Emission in tons/yr | 2.409E-06 | 5.300E-06 | 6.745E-06 | 1.831E-06 | 1.012E-05 |

Methodology is the same as page 2.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

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

Company Name: Foster Printing Service, Inc.
Address City IN Zip: 4295 S. Ohio Street, Michigan City, IN 46360
Permit No.: 091-21183-00114
Reviewer: LStapf
Date: May 26 2005

Potential Uncontrolled Emissions:

Throughput for Packaging Rotogravure Printing Press:

| Press I.D. | Maximum Line Speed (ft/min) | Convert Feet to Inches | Maximum Print Width (in) | 60 Min/ Hour | 8,760 HR YEAR | 1/1,000,000 | Potential MMin ² /Year |
|-----------------------------------|--------------------------------|---------------------------|-----------------------------|-----------------|------------------|-------------|-----------------------------------|
| Diddle Model Heatsset Web | 800 | 12 | 20.0 | 60 | 8,760 | 1,000,000 | 100,915 |
| 6C Komori sheetfed offset printer | 320 | 12 | 40.0 | 60 | 8,760 | 1,000,000 | 80,732 |
| Solna 164 Sheetfed Offset | 122 | 12 | 25.0 | 60 | 8,760 | 1,000,000 | 19,237 |
| Heidelberg GTO Sheetfed Offset | 80 | 12 | 20.0 | 60 | 8,760 | 1,000,000 | 10,092 |
| | | | | | | | 210,976 |

PRINTING VOC:

| Ink Name | Maxium Coverage lbs/ MMin ² | Weight % Organics | Flash Off % | Potential Throughput MMin ² /Year | Tons/ 2,000 lbs | VOC Pounds per Hour | VOC Tons per Year |
|--|---|-------------------|-------------|---|--------------------|---------------------|-------------------|
| Ink | 0.08 | 35.00% | 80% | 210,976 | 2,000 | 0.54 | 2.36 |
| Allied Hydro + Fountain Solution | 0.02 | 98.00% | 80% | 210,976 | 2,000 | 0.38 | 1.65 |
| Solvents | 0.07 | 99.00% | 80% | 210,976 | 2,000 | 1.34 | 5.85 |
| Dynafont M Fountain Solution | 0.01 | 77.00% | 80% | 210,976 | 2,000 | 0.15 | 0.65 |
| | | | | | | | |
| Total Potential Uncontrolled Emissions: | | | | | | 2.40 | 10.52 |

Controlled and Limited Emissions:

| Press I.D. | Control Device | Capture System Capture Efficiency | Thermal/Catalytic Oxidizer Destruction Efficiency | Controlled/Limited VOC Pounds per Hour | Controlled/Limited VOC Tons per Year |
|------------------------------------|----------------------------|--------------------------------------|--|---|---|
| | | | | | |
| | catalytic/thermal oxidizer | 0.00% | 95.00% | 2.40 | 10.52 |
| | | | | | |
| Total Controlled Emissions: | | | | 2.40 | 10.52 |

Methodology:

Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8,760 hours per year = MMin² per Year

VOC = Maximum Coverage pounds per MMin² * Weight percentage organics (volatiles minus water) * Flash off * Throughput * Tons per 2,000 pounds = Tons per Year

Controlled/Limited Emissions = Uncontrolled Emissions * (1 - (Capture Efficiency * Destruction Efficiency)) * VOC Input Limitation (%)

Appendix A: Emission Calculations
HAPs From Printing Press Operations

Company Name: Foster Printing Service, Inc.
Address City IN Zip: 4295 S. Ohio Street, Michigan City, IN 46360
Permit No.: 091-21183-00114
Reviewer: LStapf
Date: May 26 2005

| Potential Uncontrolled Emissions: | | | | | | | | | | | | | | |
|--|--|------------|-----------------------------------|-----------------------------------|---------------------------------|--|--|---|---------------------------------|-------------------------------|-------------------------------------|---|--|----------------------------------|
| Coating Name | Maximum Coverage lbs/ MMin ² | Flashoff % | Potential MMin ² /Year | Weight % Methanol (as applied) | Weight % Xylene (as applied) | Weight % Glycol Ether (as applied) | Weight % Methylene Chloride (as applied) | Weight % Ethylene Glycol (as applied) | Methanol Emissions (tons/yr) | Xylene Emissions (tons/yr) | Glycol Ether Emissions (tons/yr) | Methylene Chloride Emissions (tons/yr) | Ethylene Glycol Emissions (tons/yr) | TOTAL HAP Emissions (tons/yr) |
| Ink | 0.08 | 80.00% | 212.490 | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Allied Hydro + Fountain Solution | 0.02 | 80.00% | 212.490 | 0.0% | 0.0% | 0.0% | 0.0% | 24.0% | 0.00 | 0.00 | 0.00 | 0.00 | 0.41 | 0.41 |
| Solvents | 0.07 | 80.00% | 212.490 | 17.0% | 83.0% | 0.0% | 0.0% | 0.0% | 1.01 | 4.94 | 0.00 | 0.00 | 0.00 | 5.95 |
| Dynafount M Fountain Solution | 0.01 | 80.00% | 212.490 | 0.0% | 0.0% | 11.0% | 2.0% | 0.0% | 0.00 | 0.00 | 0.09 | 0.02 | 0.00 | 0.11 |
| Total Potential Uncontrolled Emissions: | | | | | | | | | 1.01 | 4.94 | 0.09 | 0.02 | 0.41 | 6.47 |
| Total Controlled Emissions: | | | | | | | | | 1.01 | 4.94 | 0.09 | 0.02 | 0.41 | 6.47 |

Methodology:

HAPs = Maximum Coverage pounds per MMin² * Wight percent volatile * Weight percentage HAPs * Throughput * (1 ton/2,000 lbs) = Tons per Year
 Controlled/Limited Emissions = Uncontrolled Emissions * (1 - (Capture Efficiency * Destruction Efficiency)) * VOC Input Limit (%)

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

Company Name: Foster Printing Service, Inc.
Address City IN Zip: 4295 S. Ohio Street, Michigan City, IN 46360
Permit No.: 091-21183-00114
Reviewer: LStapf
Date: May 26 2005

A. One (1) Heidelberg 8-color Sheetfed Offset Lithographic Printing

VOC Emissions

| Ink/Cleaning Solvent | Maximum Usage (lb/hr) * | VOC Content (wt. %) | Flast Off (% VOC emitted) | Potential Emissions | | |
|------------------------------------|----------------------------|------------------------|------------------------------|---------------------|--------|--------|
| | | | | (lb/hr) | lb/day | ton/yr |
| Sheetfed Inks & Varnishes | 0.9348 | 15.00% | 5.00% | 0.01 | 0.17 | 0.03 |
| Blanket Wash #3656 | 0.6293 | 100.00% | 100.00% | 0.63 | 15.10 | 2.76 |
| Roller Wash #3552 | 0.5142 | 98.00% | 100.00% | 0.50 | 12.09 | 2.21 |
| Dyna Kleen | 0.0087 | 10.00% | 100.00% | 0.00 | 0.02 | 0.00 |
| Metering Roller Cleaner | 0.0226 | 29.30% | 100.00% | 0.01 | 0.16 | 0.03 |
| Anti-Skin Spray | 0.0028 | 100.00% | 100.00% | 0.00 | 0.07 | 0.01 |
| Allied Hydro Plus | 0.2015 | 79.00% | 100.00% | 0.16 | 3.82 | 0.70 |
| Allied L.L. Plus Fountain Solution | 0.1813 | 18.00% | 100.00% | 0.03 | 0.78 | 0.14 |
| Anti-Static Spray | 0.0011 | 90.00% | 100.00% | 0.00 | 0.02 | 0.00 |
| Total: | | | | 1.34 | 32.24 | 5.88 |

Notes:

* Maximum usages are taken directly from Construction Permit No.: 091-9400-00114, issued on February 27, 1998.

B. Two (2) Video inkjets for Inkjet Label Printing System.

VOC Emissions

| Ink/Cleaning Solvent | Maximum Usage (lb/hr) * | VOC Content (lbs/liter) | Flast Off (% VOC emitted) | Potential Emissions | | |
|----------------------------------|----------------------------|-----------------------------|------------------------------|---------------------|--------|--------|
| | | | | (lb/hr) | lb/day | ton/yr |
| Inkjet Ink | 0.10 | 0.01 | 100.00% | 0.10 | 2.41 | 0.44 |
| Makeup Fluid & Cleaning Solution | 0.13 | 0.00 | 100.00% | 0.13 | 3.10 | 0.57 |
| Total: | | | | 0.23 | 5.51 | 1.01 |

* Maximum usage is provided by the source.

Methodology:

VOC Emissions (ton/yr) = Max. Usage (lb/hr) x VOC content (wt. %) x Flash Off (% VOC emitted) x 8760 hr / yr x 1 ton / 2000 lb.