

**CONSTRUCTION PERMIT  
OFFICE OF AIR MANAGEMENT**

**Bowne of South Bend  
5021 Nimtz Parkway  
South Bend, Indiana 46628**

is hereby authorized to construct

- (a) one (1) Sheet Fed printing press with a maximum line speed of 13,000 sheets per hour designated ISF, and
- (b) four (4) Web Offset printing presses, each having a maximum line speed of 1,422 feet per minute, designated WO5-1 through WO5-4.

This permit is issued to the above mentioned company (herein known as the Permittee) under the provisions of 326 IAC 2-1 and 40 CFR 52.780, with conditions listed on the attached pages.

Construction Permit No.: CP-141-9011-00179	
Issued by:  Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

## Construction Conditions

### General Construction Conditions

1. That the data and information supplied with the application shall be considered part of this permit. Prior to any proposed change in construction which may affect allowable emissions, the change must be approved by the Office of Air Management (OAM).
2. That this permit to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

### Effective Date of the Permit

3. That pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.
4. That pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. That notwithstanding Construction Condition No. 6, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

### First Time Operation Permit

6. That this document shall also become a first-time operation permit pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:
  - (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the facilities were constructed as proposed in the application. The facilities covered in the Construction Permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.
  - (b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
  - (c) Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.
  - (d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1-7.1(Fees).

- (e) Pursuant to 326 IAC 2-1-4, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. The operation permit issued shall contain as a minimum the conditions in the Operation Conditions section of this permit.

Phase Construction Time Frame

- 7. That pursuant to 326 IAC 2-1-9(b)(Revocation of Permits), the IDEM may revoke this permit to construct if the:
  - (a) Construction of Phase 1 (including: one (1) Sheet Fed printing press and two (2) Web Offset printing presses) has not begun within eighteen (18) months from the date of the effective date of this permit or if during the construction of Phase 1, work is suspended for a continuous period of one (1) year or more.
  - (b) Construction of Phase 2 (including: two (2) Web Offset printing presses) has not begun within eighteen (18) months after the operation of Phase 1 or if during the construction of Phase 2, work is suspended for a continuous period of one (1) year or more.

The OAM may extend such time upon satisfactory showing that an extension, formally requested by the Permittee is justified.

- 8. That when the facility is constructed and placed into operation the following operation conditions shall be met:

**Operation Conditions**

General Operation Conditions

- 1. That the data and information supplied in the application shall be considered part of this permit. Prior to any change in the operation which may result in an increase in allowable emissions exceeding those specified in 326 IAC 2-1-1 (Construction and Operating Permit Requirements), the change must be approved by the Office of Air Management (OAM).
- 2. That the permittee shall 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.

Preventive Maintenance Plan

- 3. That pursuant to 326 IAC 1-6-3 (Preventive Maintenance Plans), the Permittee shall prepare and maintain a preventive maintenance plan, including the following information:
  - (a) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices.
  - (b) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions.
  - (c) Identification of the replacement parts which will be maintained in inventory for quick replacement.

The preventive maintenance plan shall be submitted to IDEM, OAM upon request and shall be subject to review and approval.

Transfer of Permit

4. That pursuant to 326 IAC 2-1-6 (Transfer of Permits):
- (a) In the event that ownership of this printing plant is changed, the Permittee shall notify OAM, Permit Branch, within thirty (30) days of the change. Notification shall include the date or proposed date of said change.
  - (b) The written notification shall be sufficient to transfer the permit from the current owner to the new owner.
  - (c) The OAM shall reserve the right to issue a new permit.

Permit Revocation

5. That pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:
- (a) Violation of any conditions of this permit.
  - (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.
  - (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.
  - (d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.
  - (e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of 326 IAC 2-1 (Permit Review Rules).

Availability of Permit

6. That pursuant to 326 IAC 2-1-3(l), the Permittee shall maintain the applicable permit on the premises of this source and shall make this permit available for inspection by the IDEM or other public official having jurisdiction.

Annual Emission Reporting

7. That pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee must annually submit an emission statement for the source. This statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Management  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30.

Open Burning

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

Volatile Organic Compounds (VOC)

9. That pursuant to 326 IAC 2-1-3(i)(8), records of surface coating quantities and organic solvent contents shall be maintained for a minimum period of 36 months and made available upon request of the Office of Air Management (OAM). Any change or modification which may increase the potential VOC emissions to 100 tons per year or more, potential emissions of a single hazardous air pollutant (HAP) to 10 tons per year or more, or potential combined HAP emissions to 25 tons per year or more from the equipment covered in this permit must be approved by the Office of Air Management (OAM) before such change may occur.

## Indiana Department of Environmental Management Office of Air Management

### Technical Support Document (TSD) for New Construction and Operation

#### Source Background and Description

Source Name:	Bowne of South Bend
Source Location:	5021 Nimtz Parkway, South Bend, IN
County:	St. Joseph
Construction Permit No.:	CP-141-9011-00179
SIC Code:	2759
Permit Reviewer:	Janusz Johnson

The Office of Air Management (OAM) has reviewed an application from Bowne of South Bend relating to the construction and operation of a new printing plant, consisting of the following equipment:

- (a) one (1) Sheet Fed printing press with a maximum line speed of 13,000 sheets per hour designated ISF, and
- (b) four (4) Web Offset printing presses, each having a maximum line speed of 1,422 feet per minute, designated WO5-1 through WO5-4.

#### Recommendation

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

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

An application for the purposes of this review was received on September 23, 1997, with additional information received on November 7, 1997.

#### Emissions Calculations

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations (3 pages).

### Total Potential and Allowable Emissions

Indiana Permit Allowable Emissions Definition (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	0.0	0.0
Particulate Matter (PM10)	0.0	0.0
Sulfur Dioxide (SO <sub>2</sub> )	0.0	0.0
Volatile Organic Compounds (VOC)	92.8	92.8
Carbon Monoxide (CO)	0.0	0.0
Nitrogen Oxides (NO <sub>x</sub> )	0.0	0.0
Single Hazardous Air Pollutant (HAP)	5.1	5.1
Combination of HAPs	12.3	12.3

- (a) The potential emissions before control are the same as the allowable emissions, therefore, the potential emissions before control are used for the permitting determination.
- (b) Allowable emissions (as defined in the Indiana Rule) of volatile organic compounds (VOC) are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.

### County Attainment Status

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

## Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.0
PM10	0.0
SO <sub>2</sub>	0.0
VOC	92.8
CO	0.0
NO <sub>x</sub>	0.0
Single HAP	5.1
Combination HAPs	12.3

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

## Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

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

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

This is the first air approval issued to this source.

## Federal Rule Applicability

- (a) There are no New Source Performance Standards (326 IAC 12), 40 CFR Part 60, applicable to these facilities. NSPS Subpart QQ (40 CFR Part 60.430) does not apply because the Sheet Fed and Web Offset printing presses are not rotogravure printing presses.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, applicable to these facilities. NESHAP Subpart KK (40 CFR Part 60.820) does not apply because this source is not be a major source of hazardous air pollutants (HAPs) as defined in 40 CFR 63.2.

### State Rule Applicability

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

This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than 10 tons/yr of VOC. Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by April 15 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

#### 326 IAC 8-5-5 (Miscellaneous Operations: Graphic Arts Operations)

This rule does not apply because the printing presses being constructed under this permit are not rotogravure or flexographic presses.

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

This rule does not apply because each new printing press (i.e. facility) has potential emissions less than 25 tons per year.

There are no other 326 IAC 8 rules that apply.

### Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 187 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

- (a) This new printing plant will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Amendments to Clean Air Act.
- (b) See attached spreadsheets for detailed air toxic calculations.
- (c) This new printing plant is not subject to 326 IAC 2-1-3.4 (New Source Toxics Control) because it is not a major source of hazardous air pollutants (HAP), as defined in 40 CFR 63.41.

### Conclusion

The construction of this new printing plant will be subject to the conditions of the attached proposed **Construction Permit No. CP-141-9011-00179**.

**Appendix A: Emissions Calculations  
VOCs from printing**

**Company Name: Bowne of South Bend**  
**Address City IN Zip: 5021 Nimtz Parkway, South Bend, IN**  
**CP: 141-9011**  
**Plt ID: 141-00179**  
**Reviewer: Janusz Johnson**  
**Date: November 20, 1997**

**SHEETFED PRESSES**

ACTUAL usages based on the average of three (3) sheetfed presses at the other plant operating 2000 hours/year  
 POTENTIAL usages are based on operating 8760 hours per year

	ACTUALS PER LINE	POTENTIAL PER LINE	
Ink usage per line (lb/yr)	14500.00	63510.00	
Worst case VOC content (wt. %)	29.20%	29.20%	
Coating usage per line (lb/yr)	12000.00	52560.00	
Worst case VOC content (wt. %)	4.59%	4.59%	
<b>Emissions (tons/yr)</b>	<b>2.39</b>	<b>10.48</b>	x1 line = <b>10.48 tons/yr</b>

**WEB OFFSET PRESSES**

ACTUAL usage based on the average of four (4) web offset presses at the other plant operating 2325 hours/year  
 POTENTIAL usages are based on operating 8760 hours per year

	ACTUALS PER LINE	POTENTIAL PER LINE	
Ink usage per line (lb/yr)	31750.00	119625.81	
Worst case VOC content (wt. %)	27.70%	27.70%	
Flash Off (%)	5.00%	5.00%	
<b>Emissions (tons/yr)</b>	<b>0.22</b>	<b>0.83</b>	x4 lines = <b>3.31 tons/yr</b>

## Indiana Department of Environmental Management Office of Air Management

### Addendum to the Technical Support Document for New Construction and Operation

Source Name: Bowne of South Bend  
 Source Location: 5021 Nimitz Parkway, South Bend, IN  
 County: St. Joseph  
 Construction Permit No.: CP-141-9011-00179  
 SIC Code: 2759  
 Permit Reviewer: Janusz Johnson

On December 10, 1997, the Office of Air Management (OAM) had a notice published in The South Bend Tribune, South Bend, Indiana, stating that Bowne of South Bend had applied for a permit for construction and operation of a new printing plant. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On December 11, 1997, EIS Environmental Engineers, Inc., representing Bowne of South Bend, submitted the following comments:

Comment 1: The emission calculations for the web offset presses presented in Appendix A of the Technical Support Document are in error. The basis for the calculations should be actual ink usage of 31,750 pounds per year and 2325 actual operating hours per year. Also, the worst case VOC content should be 27.7%.

Response 1: The calculations presented in the TSD of the draft permit were incorrect. Changes have been made to Page 1 of 3 of the TSD Appendix A : Emission Calculations based on the information supplied during the comment period. The "Total Potential and Allowable Emissions" Table on Page 2 of 4 of the TSD shall be revised as follows (bold emphasis added):

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	0.0	0.0
Particulate Matter (PM10)	0.0	0.0
Sulfur Dioxide (SO <sub>2</sub> )	0.0	0.0
Volatile Organic Compounds (VOC)	<b>89.1</b>	<b>89.1</b>
Carbon Monoxide (CO)	0.0	0.0
Nitrogen Oxides (NO <sub>x</sub> )	0.0	0.0
Single Hazardous Air Pollutant (HAP)	5.1	5.1
Combination of HAPs	12.3	12.3

The change in potential emissions also affects the "Source Status" Table on Page 3 of 4 of the TSD. This table shall be revised as follows (bold emphasis added):

Pollutant	Emissions (ton/yr)
PM	0.0
PM10	0.0
SO <sub>2</sub>	0.0
VOC	<b>89.1</b>
CO	0.0
NO <sub>x</sub>	0.0
Single HAP	5.1
Combination HAPs	12.3

The revised calculations decrease the level of potential VOC emissions anticipated from the new printing presses. Therefore, this change will not affect the status of the source or the conditions of the permit, and this change will not require an additional public notice period. The TSD will not actually be changed such that it can provide a basis for the changes made herein.

Comment 2: Bowne of South Bend plans to recycle solvents and cleaners which will reduce the level of actual VOC emissions from the proposed equipment.

Response 2: The effect of recycling 38% of the cleaner and solvent wastes on the potential VOC emissions was calculated on Page 2 of 3 of the TSD Appendix A. The potential VOC emissions reported in the TSD (as revised above in the response to Comment 1) do not include credit for recycling. Further discussion with EIS Environmental Engineers, Inc., representing Bowne of South Bend indicated that this was not a problem provided that conditions could be added to the permit in the future to allow credit for recycling should the need arise.

On December 22, 1997, the OAM determined that Operation Condition No.9 on Page 5 of 5 of the permit should include recordkeeping requirements. The condition shall be changed from:

9. Any change or modification which may increase the potential VOC emissions to 100 tons per year or more, potential emissions of a single hazardous air pollutant (HAP) to 10 tons per year or more, or potential combined HAP emissions to 25 tons per year or more from the equipment covered in this permit must be approved by the Office of Air Management (OAM) before such change may occur.

to read as follows (bold emphasis added):

9. **That pursuant to 326 IAC 2-1-3(i)(8), records of surface coating quantities and organic solvent contents shall be maintained for a minimum period of 36 months and made available upon request of the Office of Air Management (OAM).** Any change or modification which may increase the potential VOC emissions to 100 tons per year or more, potential emissions of a single hazardous air pollutant (HAP) to 10 tons per year or more, or potential combined HAP emissions to 25 tons per year or more from the equipment covered in this permit must be approved by the Office of Air Management (OAM) before such change may occur.

This change will provide documentation for the demonstration of compliance with the original intent of the condition.