

Mr. Patrick J. Peak  
Ivy Hill Corporation  
1405 North Fruitridge Ave.  
Terre Haute, IN 47804

Re: **SMF 167-9592-00063**  
First Significant Modification to  
**FESOP 167-6257-00063**

Dear Mr. Peak:

Ivy Hill Corporation was issued a FESOP on December 13, 1996 for a printing operation. A letter requesting changes to this permit and an application for new equipment was received on February 26, 1998. Pursuant to the provisions of 326 IAC 2-8-11, a significant modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of the replacement of press 6C40 with a new booth, identified as 6C56. There will be no increase in allowable emissions from the source, and record keeping and reporting requirements for the new press will be the same as the requirements for the existing press.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Ms. Dana L. Brown, of my staff, at the above address; or by phone at 812-462-3433.

Sincerely,

George M. Needham,  
Director,  
Vigo County Air Pollution Control

Attachments

DLB

cc: U.S. EPA, Region V  
Administrative and Development - Autumn Marker  
Policy Planning and Coordination - Winter Bottum

# FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

**VIGO COUNTY AIR POLLUTION CONTROL**  
**under contract for:**  
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

201 Cherry Street  
Terre Haute, Indiana 47807  
Phone: 1-(812)-462-3433

**Ivy Hill Corporation**  
**1405 North Fruitridge Ave.**  
**Terre Haute, Indiana 47804**

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: F 167-6257-00063	
Issued by: George M. Needham, Director Vigo County Air Pollution Control	Issuance Date: December 13, 1996

First Significant Permit Modification: SMF 167-9592-00063	Pages Affected: 4, 23, 43, 47
Issued by: George M. Needham, Director Vigo County Air Pollution Control	Issuance Date:

## SECTION A SOURCE SUMMARY

### A.1 General Information

The Permittee owns and operates a printing operation.

Responsible Official: Patrick J. Peak  
Source Address: 1405 North Fruitridge Ave., Terre Haute, Indiana 47804  
Mailing Address: 4325 Shepherdsville Road, Louisville, KY, 40218  
SIC Code: 2752  
County Location: Vigo  
County Status: Nonattainment for SO2.  
Source Status: Synthetic Minor Source, FESOP Program

### A.2 Emission Units and Pollution Control Summary

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

1. One (1) Planeta printing press (Model RA-142-6+L-ALV) with a maximum operating rate of 14,000 sheets per hour, which is identified as 6C56, without control.
2. One (1) Planeta printing press (Model V97-SW1, Serial Number 284912) which is identified as 6C55. This press was installed in 1989.
3. One (1) Diddle printing press (Model ML-1000, Serial Number 3322438) which is identified as UVW001. This press was installed in 1996.
4. One (1) Planeta printing press (Model V68-12SW2, Serial Number 276910) which is identified as 6C64. This press was installed in 1995.
5. One (1) Planeta printing press (Model V87-12, Serial Number 240423) which is identified as 7C55. This press was installed in 1986.
6. One (1) Planeta printing press (Model VL76g-2SW1, Serial Number 300920) which is identified as 6C50. This press was installed in 1991.
7. One (1) Heidelberg printing press (Model CD102-7+LX, Serial Number 538358) which is identified as 7C40. This press was installed in 1996.
8. One (1) Puhl paper collector/baler which was installed in 1991.

## **SECTION D.1 FACILITY OPERATION CONDITIONS**

One (1) Planeta printing press (Model RA-142-6+L-ALV) with a maximum operating rate of 14,000 sheets per hour, which is identified as 6C56, without control.

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

### **Construction Conditions [326 IAC 2-1-3.2]**

#### **General Construction Conditions**

D.1.1 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**

D.1.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

D.1.3 Pursuant to 326 IAC 2-1-9(b) (Revocation of Permits), IDEM, OAM, and Vigo County Air Pollution Control may revoke this section of the approved permit if construction is not commenced within eighteen (18) months after receipt of this permit or if construction is suspended for a continuous period of one (1) year or more.

D.1.4 All requirements of these construction conditions 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**

D.1.5 This document shall also become the first-time operation permit for the facility under this section of this 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:

Indiana Department of Environmental Management  
Permit Administration & Development Section, Office of Air Management  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Vigo County Air Pollution Control  
201 Cherry Street  
Terre Haute, Indiana 47807

verifying that the facilities were constructed as proposed in the application. The facilities covered in this section of this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM and Vigo County Air Pollution Control.

- (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) The permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this permit.

### **Emissions Limitations and Standards [326 IAC 2-8-4(1)]**

#### **D.1.6 Volatile Organic Compound**

The VOC emissions from the printing press shall be limited as follows:

VOC emissions shall not exceed 22 tons per year rolled monthly.

Additionally, the VOC emissions from all the presses combined shall not exceed 88 tons per year rolled monthly.

Therefore, the requirements of 326 IAC 2-7 and 326 IAC 8-1-6 do not apply.

#### **D.1.7 Hazardous Air Pollutants**

The combined hazardous air pollutant emissions from all the presses combined shall be limited to no more than 21.1 tons per year rolled monthly.

Therefore, the requirements of 326 IAC 2-7 do not apply.

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

#### **D.1.8 Volatile Organic Compound (VOC) Usage**

The Permittee shall maintain records at the source of the materials used that contain any VOCs. The records shall be complete and sufficient to establish compliance with the VOC usage limits and VOC emission limits established in this permit. The records shall contain a minimum of the following:

- (a) The weight of VOC containing material used, including purchase orders and invoices necessary to verify the type and amount used;
- (b) The VOC content (weight percent) of each material used;
- (c) The weight of VOCs emitted for each compliance period, considering capture and control efficiency, if applicable.

#### **D.1.9 Hazardous Air Pollutant (HAP)**

The Permittee shall maintain records at the facility of the materials used that contain any HAPs. The

records shall be complete and sufficient to establish compliance with the HAP usage limits and HAP emission limits that may be established in this permit. The records shall contain a minimum of the following:

- (a) The weight of HAP containing material used, including purchase orders and invoices necessary to verify the type and amount used;
- (b) The HAP content (**weight percent**) of each material used;
- (c) Identification of the facility or facilities associated with the usage of each HAP; and
- (c) The weight of HAPs emitted for each compliance period, considering capture and control efficiency, if applicable.

D.1.10 Quarterly Reporting

A quarterly summary to document compliance with operation conditions numbers D.1.6 and D.1.7 shall be submitted to the addresses listed in Section C.12 - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported.

D.1.11 Preventive Maintenance

A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for this facility.

D.1.12 Calculation of Individual Press Emissions

On December 5, 1996 Ivy Hill submitted a plan to accurately estimate the emissions on a press by press basis from the overall source records. The plan was determined to be accurate enough to use and the provisions of that plan can be used as the method for splitting the emissions up. The processes covered in this plan are: Ink Usage, Coating Usage, Solvent Usage, Alcohol Usage and Alcohol Substitute Usage. Any other source of VOC or HAP emissions from the presses must be tracked on a press by press basis. The calculation information shall be submitted as part of the quarterly reports required by Condition D.1.10.

**VIGO COUNTY AIR POLLUTION CONTROL**  
201 Cherry Street  
Terre Haute Indiana, 47807

and **INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
Office of Air Management  
Compliance Data Section  
100 North Senate Ave  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015

## FESOP Quarterly Report VOC Summary

Source Name: Ivy Hill Packaging  
Source Address: 1405 Fruitridge Ave., Terre Haute, Indiana 47804  
FESOP No.: F 167-6257-00063  
Facility: Printing Presses  
Parameter: VOC Fed to the printing presses

**Year:** \_\_\_\_\_

Press	Month	Month	Month	Limit
6C56				1.83 ton/month
6C55				1.83 ton/month
UVW001				1.83 ton/month
6C64				1.83 ton/month
7C55				1.83 ton/month
6C50				1.83 ton/month
7C40				1.83 ton/month
Total				7.33 ton/month

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

9 Attached are supporting spreadsheets.

Submitted by: \_\_\_\_\_  
Title/Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

**VIGO COUNTY AIR POLLUTION CONTROL**  
**201 Cherry Street**  
**Terre Haute, IN 47807**

and

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT COMPLIANCE DATA SECTION**  
**Office of Air Management**  
**100 North Senate Ave.**  
**P.O. Box 6015**  
**Indianapolis, IN 46206-6015**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)**  
**VOC Report Form**

Source Name: Ivy Hill Packaging  
Source Address: 1405 North Fruitridge Ave., Terre Haute, Indiana  
FESOP No.: F 167-6257-00063  
Facility: Press 6C56  
Parameter: VOC Emissions  
Limit: 22 Tons per year press 6C56 (rolled monthly)

Year

Month	Ton VOC Press 6C56 This Month	Ton VOC Press 6C56 Last 12 Months

- 9 No Deviation occurred in this month.
- 9 Deviation/s occurred in this month.  
Deviation has been reported on: \_\_\_\_\_
- 9 Attached are supporting spreadsheets.

Submitted by: \_\_\_\_\_  
Title/Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_

Mail to: Permit Administration & Development Section  
Office Of Air Management  
100 North Senate Avenue  
P. O. Box 6015  
Indianapolis, Indiana 46206-6015

Ivy Hill Packaging  
1405 North Fruitridge Ave.  
Terre Haute, Indiana 47804

**Affidavit of Construction**

I, \_\_\_\_\_, being duly sworn upon my oath, depose and say:  
(Name of the Authorized Representative)

1. I live in \_\_\_\_\_ 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 \_\_\_\_\_ for \_\_\_\_\_.  
(Title) (Company Name)
3. By virtue of my position with \_\_\_\_\_, I have personal  
(Company Name)  
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of \_\_\_\_\_.  
(Company Name)
4. I hereby certify that Ivy Hill Corporation, 1405 North Fruitridge Ave., Terre Haute, Indiana 47804, has constructed the 6C56 printing press in conformity with the requirements and intent of the construction permit application received by the Office of Air Management on February 26, 1998 and as permitted pursuant to **Significant Modification No. SMF-167-9592, Plant ID No. 167-00063** issued on \_\_\_\_\_.

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

\_\_\_\_\_  
Date

STATE OF INDIANA)  
)SS

COUNTY OF \_\_\_\_\_ )

Subscribed and sworn to me, a notary public in and for \_\_\_\_\_ County and State of  
Indiana on this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_.

My Commission expires: \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name (typed or printed)

**Indiana Department of Environmental Management  
Office of Air Management  
and  
Vigo County Air Pollution Control**

**Technical Support Document for Enhanced New Source Review and  
First Significant Permit Modification of the  
Federally Enforceable State Operating Permit (FESOP)**

**Source Background and Description**

Source Name:	Ivy Hill Corporation	
Source Location:	1405 North Fruitridge Avenue, Terre Haute, Indiana 47804	
County:	Vigo	
Permit No.:	F167-6257-00063	Issued: December 13, 1996
Revision No.	SMF-167-9592-00063	
SIC Code:	2752	
Permit Reviewer:	Dana L. Brown	

**History**

On February 26, 1998, Ivy Hill Corporation filed a construction permit application with Vigo County Air Pollution Control relating to the construction and operation of a new lithographic printing press, identified as 6C56, to replace an existing printing press, identified as 6C40 in FESOP 167-6257-00063, issued December 13, 1996. Potential emissions of VOC from the proposed printing press are above the 25 ton per year level requiring a state construction permit. This significant modification also satisfies the requirements of 326 IAC 2-1 through enhanced new source review.

**Changes Proposed**

- (1) The description of press 6C40 in Section A.2 on page 4 of 53, and in Section D.1 on page 23 of 53 of the original FESOP will be revised to indicate the replacement of printing press 6C40, with a capacity of 10,000 sheets per hour, with a new printing press as follows (changes bolded for emphasis):

One (1) Planeta printing press (**Model RA-142-6+L-ALV**) with a maximum operating rate of **14,000 sheets per hour, which is identified as 6C56, without control.**

- (2) Construction conditions for new press 6C56 will be added to Section D.1, on page 23 of 53 of the FESOP.
- (3) Reporting forms will be revised for the new press.

**Enforcement Issue**

There are no enforcement actions pending.

**Recommendation**

The staff recommends to the Commissioner that the first significant modification be approved.

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

## **Emissions Calculations**

See Appendix A (Emissions Calculation Spreadsheets) for detailed calculations. (1 page)

## **Total Potential and Allowable Emissions**

See Technical Support Document of original FESOP. Potential VOC emissions from press 6C40, which is being removed from the source are 36.62 tons per year. Potential VOC emissions from new press 6C56 are 46.90 tons per year, therefore there is an increase in potential VOC emissions from this significant modification of 10.28 tons per year.

Allowable emissions from the source will not change.

## **Federal Rule Applicability**

There are no changes in Federal rule applicability from the original FESOP.

## **State Rule Applicability**

There are no changes in State rule applicability from the original FESOP.

## **Compliance Monitoring**

There are no changes in the Compliance Monitoring requirements from the original FESOP.

## **Air Toxic Emissions**

There are no changes in the air toxic emissions due to this modification.

## **Conclusion**

The first significant modification to this source will be subject to the conditions of the attached proposed **FESOP Significant Modification Permit No. SMF167-9592-00063**.

Appendix A: Emissions Calculations  
 VOC From Printing Press Operations

Company Name: Ivy Hill Corporation  
 Address City, IN Zip: 1405 North Fruitridge Ave, Terre Haute, Indiana 47804  
 SMF: 167-9592-00063  
 Plt ID: 167-00063  
 Reviewer: Dana L. Brown  
 Date: April 1, 1998

THROUGHPUT							
Press I.D.	MAXIMUM LINE SPEED FEET MIN	CONVERT FEET TO INCHES	MAXIMUM PRINT WIDTH INCHES	60 MIN HOUR	8760 HR YEAR	1/1000000	MMin <sup>2</sup> /YEAR
Planeta	777.8	12	56	60	8760	1000000	274721

INK VOCS						
Ink Name Press Id	Maxium Coverage lbs/ MMin <sup>2</sup>	Weight % Volatiles*	Flash Off %	Through Put MMin <sup>2</sup> / Year	Tons 2000 lbs	Tons Year
UV Coating	0.6754	9%	100.00%	274721	2000	8.35
Isopropanol	0.1179	100%	100.00%	274721	2000	16.19
Blanket/Roller Wash	0.1608	100%	100.00%	274721	2000	22.09
UV Ink (Highest VOC)	0.0447	4%	100.00%	274721	2000	0.27

<b>Total VOC</b>	<b>46.90</b>	<b>Ton/yr</b>
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\*VOC = Maximum Coverage pounds per MMin<sup>2</sup> \* Weight % volatiles (weight % of water & organics - weight % of water = weights % organics) \* Flash off \* Throughput \* Tons per 2000 pounds = Tons per Year

METHODOLOGY

Throughput = Maxium line speed feet per minute \* Convert feet to inches \* Maximum print width inches \* 60 minutes per hour \* 8760 hours per year = MMin<sup>2</sup> per Year

VOC = Maximum Coverage pounds per MMin<sup>2</sup> \* Weight percentage volatiles (water minus organics) \* Flash off \* Throughput \* Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED

FLASH OFF OF 80%. OTHER TYPE OF PRINTERS HAVE A FLASH OFF OF 100%

printing.wk4 9/95