Mr. Steve Valente
GAC Indianapolis, Web Division
5455 West 84th Street
Indianapolis, IN 46268

RE: MMF 097-12262-00145
Second Minor Permit Revision to
FESOP F097-5516-00145

Dear Mr. Valente:

GAC Indianapolis, Web Division was issued a permit (FESOP) on December 12, 1996, related to the operation of the Lithographic Heatset Offset Presses.

On January 9, 1998, the First Minor Permit Modification (MMF 097-8797) was issued; on November 9, 1998, the First Administrative Permit Amendment (AAF 097-10224) was issued.

An Application requesting changes to this permit was received on April 22, 1999. Pursuant to the provisions of 326 IAC 2-8-11.1 (Permit Revisions) a Minor Permit Revision, due to the "Modifications involving a pollution control project or pollution prevention project as defined in 326 IAC 2-1.1-1 that do not increase the potential to emit of any regulated pollutant greater than the thresholds under subsections (e)(1), but requires a significant change in the method or methods to demonstrate or monitor compliance", to this permit is hereby approved as described in the attached amended pages of Federally Enforceable State Operating Permit (FESOP) number F097-5516-00145.

The Permit Revision includes changes in the Stack Testing Requirements, VOC capture efficiency and retention factor, Compliance Monitoring Requirements, Record Keeping and Reporting.

Also, the source name was changed from GAC Shepard Poorman, Web Division to GAC Indianapolis, Web Division; responsible official name was changed to Mr. Timothy Browning.

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

This decision is subject to Indiana Administrative Order and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Mr. Boris Gorlin, by phone at (317)-327-2234 or by Fax at (317)327-2274 or by mail at the address shown below.

Environmental Resources Management Division
2700 South Belmont Avenue
Indianapolis, IN 46221

Sincerely,

Mona A. Salem,
COO
DPW

enclosures: FESOP Minor Permit Revision (5 pages), TSD (4 pages)

cc: Matt Mosier, Compliance Program Manager
Mindy Hahn, IDEM-OAM
Files

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) ENHANCED NEW SOURCE REVIEW

OFFICE OF AIR MANAGEMENT
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION

GAC Indianapolis, Web Division
5455 West 84th Street
Indianapolis, Indiana 46268

(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.: F097-5516-00145	
Issued by: Dr. Robert Holm, Administrator ERMD	Issuance Date: December 12, 1996

First Minor Permit Modification: MMF097-8797	Pages Affected: 1 through 33
Issued by: Dr. Robert Holm, Administrator ERMD	Issuance Date: January 9, 1998

First Administrative Permit Amendment: AAF097-10224-00145	Pages Affected: 1, 4, 26, 29, 30, 31, 32, 33
Issued by: Dr. Robert Holm, Administrator ERMD	Issuance Date: November 9, 1998

Second Minor Permit Revision **MMF 097-12262-00145**	Pages Affected: 1, 4, 26, 27, 28
Issued by: Mona A. Salem Chief Operating Officer Department of Public Works City of Indianapolis	Issuance Date:

SECTION A SOURCE SUMMARY

A.1 General Information [326 IAC 2-8-3 (b)]

The Permittee owns and operates a Lithographic Printing Operation.

Responsible Official:	Mr. Timothy Browning
Source Address:	5455 West 84th Street, Indianapolis Indiana 46268
Mailing Address:	P.O. Box 68110, Indianapolis Indiana
SIC Code:	2752 and 2732
County Location:	Marion
County Status:	Attainment for all criteria pollutants
Source Status:	Minor Source, PSD Rules; Synthetic Minor Source, Part 70 Permit Program

A.2 Emission Units and Pollution Control Summary [326 IAC 2-8-3(c)(3)]

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

1) Emitting units number one (1) is a Heidelberg Lithographic Heatset Offset Web Press model number M-9 equipped with a 0.75 MMBTU/hour natural gas fired dryer. The Heidelberg Press has a maximum operating capacity of 25.58 million square inches per hour. VOC and HAP emissions are controlled by a 3.36 MMBTU/hour Thermal Incinerator exhausting out one (1) stack identified as S_2.

2) Emitting units number two (2) is a Heidelberg -Harris Lithographic Heatset Offset Web Press model number M-600 equipped with a 0.75 MMBTU/hour natural gas fired dryer. The Heidelberg Press has a maximum operating capacity of 26.92 million square inches per hour. VOC and HAP emissions are controlled by a 3.36 MMBTU/hour Thermal Incinerator exhausting out one (1) stack identified as S_2.

3) Emissions Unit number three (3) Videojet Printer, model number Excel 17089416. The Videojet Printer has a maximum ink usage of 0.5527 pounds per hour and a maximum usage of makeup solvent of 0.8357 pounds per hour. Emissions from this unit are vented into the building. This unit was installed in 1997.

A.3 Insignificant Activities [326 IAC 2-7-1(20)][326 IAC 2-8-3(c)(3)(l)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

(1) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.

(2) Trimmers that do not produce fugitive emissions and that are equipped with a dust collector or trim material recovery device such as a bag filter or cyclone.

(3) Prepress Area is classified as an insignificant emitting activity based on the following information. The Potential emissions for this area was based on extrapolation of actual usage data to reflect continuous hours of operation. The potential emissions for this area was established at 0.40 tons per year for all HAPs combined and 0.67 tons of VOC per year. The highest potential emissions of an individual HAP was established at 0.23 tons of Hexane.

SECTION D.1 FACILITY OPERATION CONDITIONS

Emitting units number one (1) is a Heidelberg Lithographic Heatset Offset Web Press model number M-9 equipped with a 0.75 MMBTU/hour natural gas fired dryer. The Heidelberg Press has a maximum operating capacity of 25.58 million square inches per hour. VOC and HAP emissions are controlled by a 3.36 MMBTU/hour Thermal Incinerator exhausting out one (1) stack identified as S_2.

Emitting units number one (2) is a Heidelberg Lithographic Heatset Offset Web Press model number M-600 equipped with a 0.75 MMBTU/hour natural gas fired dryer. The Heidelberg Press has a maximum operating capacity of 26.92 million square inches per hour. VOC and HAP emissions are controlled by a 3.36 MMBTU/hour Thermal Incinerator exhausting out one (1) stack identified as S_2.

Emissions Unit number three (3) Videojet Printer, model number Excel 17089416. The Videojet Printer has a maximum ink usage of 0.5527 pounds per hour and a maximum usage of makeup solvent of 0.8357 pounds per hour. Emissions from this unit are vented into the building. This unit was installed in 1997.

Emissions Limitations [326 IAC 2-8-4(1)]

D.1.1 Volatile Organic Compound Emissions:[326 IAC 8-1-6][326 IAC 2-8-4(1)]

(a) Pursuant to 326 IAC 8-1-6 (General VOC Reduction Requirements for New Facilities), the VOC emissions from the M-9 and M-600 presses (emissions units #1 and #2) shall be controlled using Best Available Control Technology (BACT). BACT shall be:

1) use of a thermal incinerator to control VOC emissions at all times the presses are in operation,

2) a capture efficiency of 100% for VOCs from Inks and 70% for VOCs from fountain solutions, and

3) a destruction efficiency of 96% in the Thermal Oxidizer for all VOCs collected.

(b) Pursuant to 326 IAC 2-8-4(1), the total VOC emissions from the model M-9 Heidelberg Press (emission unit #1), model M-600 Heidelberg-Harris Press (emission unit #2) and Videojet Printer (emission unit #3) shall not exceed 7.72 tons per month. This emissions limitation is equivalent to 98.28 tons per 365 day period such that the requirements of 326 IAC 2-7 (Part 70 Operating Permit) shall not apply.

D.1.2 Hazardous Air Pollutant Emissions [326 IAC 2-8-4(1)]

(a) Pursuant to 326 IAC 2-8-4(1), the emissions of a single hazardous air pollutant (HAP) from the model M-9 Heidelberg Press (emission unit #1), model M-600 Heidelberg-Harris Press (emission unit #2) and Videojet Printer (emission unit #3) shall not exceed 0.73 tons per month. This emissions limitation is equivalent to 8.76 tons of any individual HAP per 365 day period such that the requirements of the Part 70 Operating Permit program shall not apply.

(b) Pursuant to 326 IAC 2-8-4(1), the emissions of any combination of hazardous air pollutants (HAPs) from the model M-9 Heidelberg Press (emission unit #1), model M-600 Heidelberg-Harris Press (emission unit #2) and Videojet Printer (emission unit #3) shall not exceed 1.96 tons per month. This emissions limitation is equivalent to 23.52 tons of any combination of HAPs per 365 day period such that the requirements of the Part 70 Operating Permit program shall not apply.

D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for the thermal incinerator controlling the emissions from the model M-9 Heidelberg Press (emission unit #1) and model M-600 Heidelberg-Harris Press (emission unit #2).

Compliance Determination [326 IAC 2-8-4(3)]

D.1.4 Stack Testing Requirements [326 IAC 2-8-4(9)]

The Permittee shall conduct stack testing for VOCs at the inlet and outlet of the thermal incinerator within 120 days after the effective date of this permit. modification. The Permittee shall comply with the testing requirements specified in Sections C - Performance Testing, of this permit. During the stack test the usage of all VOC containing materials shall be monitored. The VOC emissions shall be calculated based on material usage, established VOC capture efficiency, VOC retention factor, and Thermal Oxidizer 96% destruction efficiency.

Compliance Assurance Monitoring Requirements [326 IAC 2-8-5(a)(1)]

D.1.5 Monitoring

(a) The Permittee shall monitor the temperature in the combustion zone of the thermal incinerator on a continuous basis. The Thermal Oxidizer shall maintain a minimum operating temperature of 1200^0F in the combustion zone, or the average temperature as determined in the most recent compliance tests which documents compliance with condition D.1.1.

(b) The Permittee shall monitor the Dryer pressure to ensure that the pressure in the Dryer is lower than the pressure in the press room.

(c) The Preventive Maintenance Plan for the thermal incinerator shall contain troubleshooting contingencies and corrective actions for when the combustion temperature falls below the minimum temperature when any one of the presses are in operation.

(d) Additional inspections and preventive measures shall be preformed as prescribed in the Preventative Maintenance Plan.

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

D.1.6 Recordkeeping Requirements

(a) To document compliance with condition D.1.1(c) the permittee shall maintain records in accordance with (1) through (4). Records maintained for (1) through (4) shall be complete and sufficient to establish compliance with VOC emissions limitation in condition D.1.1(c).

(1) The weight of VOC containing material used, including purchase orders and invoices necessary to verify the type and amount used;

(2) The VOC content (weight percent) of each material used;

(3) The weight of VOCs emitted for each compliance period, considering capture and control efficiency, if applicable;

(4) The following operation parameters of the thermal oxidizer:

(i) VOC destruction efficiency of the control device;

(ii) A description of the data used to establish the capture and destruction efficiencies; and

(iii) Continuous temperature readings in the combustion zone of the thermal oxidizer.

(e) The following operation parameters of the Dryer Pressure Differential Monitor:

(a) Pressure difference between the Dryer and the press room recorded once per shift when the press is operating.

D.1.7 Quarterly Reporting

Quarterly summary to document compliance with operation conditions numbers D.2.1(b) shall be submitted to the address(es) listed in Section C - General Reporting Requirements, using the enclosed forms or their equivalent, within thirty (30) days after the end of the quarter being reported.

Indiana Department of Environmental Management
Office of Air Management
and
Indianapolis Environmental Resources Management Division

Technical Support Document for a Minor Permit Revision to a Federally Enforceable State Operating Permit (FESOP)

Source Background and Description

Source Name:	**GAC Indianapolis, Web Division**
Source Location:	**5455 West 84th Street, Indianapolis Indiana 46268**
County:	**Marion**
SIC Code:	**2752 and 2732**
Operation Permit No.:	**FESOP F097-5516-00145**
Operation Permit Issuance Date:	**December 12, 1996**
Permit Revision No.:	**MMF 097-12262-00145**
Permit Reviewer:	**Boris Gorlin**

The ERMD has reviewed a revision application from the GAC Indianapolis, Web Division relating to the operation of the Heidelberg Lithographic Heatset Offset Press model M-9, Emissions Unit #1, the Heidelberg-Harris Lithographic Heatset Offset Press model M-600, Emissions Unit #2, and the Thermal Oxidizer for VOC emissions control.

History

This permit (FESOP) was issued on December 12, 1996. On January 9, 1998, the First Minor Permit Modification (MMF 097-8797) was issued; on November 9, 1998, the First Administrative Permit Amendment (AAF 097-10224) was issued.

On April 22, 1999, GAC Indianapolis, Web Division requested a permit revision as listed below.

C FESOP conditions be revised to accommodate the results of the Stack Test conducted on October 7, 1998; modify the Presses M-9 (Emission Unit #1) and M-600 (Emission Unit #2) maximum capacity; VOC capture efficiencies according to USEPA Control Technique Guideline “Control of Volatile Organic Compound Emissions.

The required Stack Test was conducted on October 7, 1998. The VOC Thermal Oxidizer destruction efficiency was determined to be 98.7% based on measured inlet and outlet VOC concentrations. However, it appeared impossible to obtain reliable data about the VOC capture efficiency due to high boiling point of the VOC compounds used and its condensation inside the sampling lines prior to the analyzer.

The USEPA Control Technique Guideline (CTG), “Control of Volatile Organic Compound Emissions from Offset Lithographic Printing”, gives specific guidelines for determining the capture efficiency for the inks, particularly:

(a) Page 5-2: For heatset inks, the amount of VOC retained by the substrate was estimated at **20%** (15% in the original FESOP).

(b) Page 7-9: For heatset printing, 100 % capture is achievable for emissions from the dryer . To ensure 100 % capture, the pressure in the dryer is kept slightly lower that the press room pressure when the press is operating.

The supplement to CTG, "Alternative Control Techniques Document: Offset Lithographic Printing", published by USEPA, states (page 10):

(a) 40% direct carryover of VOC from automatic blanket washing is a reasonable general assumption when the vapor pressured of the cleaning material is less than 10 mm Hg at 20^0C.

(b) 70% direct carryover of VOC from alcohol substitutes in fountain solution is a reasonable general assumption.

- Compliance Monitoring Condition regarding Dryer pressure to ensure 100 % dryer emissions capture.
- Change in the company name.
- Change of name of the responsible official.

Recommendation

The staff recommends to the Administrator that the Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information 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 April 22, 1999. Additional information was received on April 4, 2000.

The following changes were made as the Second Minor Permit Revision for this source.

Front page of the FESOP

Name of the Source was changed to GAC Indianapolis, Web Division

Section A

Condition A.1 General Information (Page 4 of 33) - the Responsible Official name was changed to Mr. Timothy Browning.

Condition A.2 Emission Unit and Pollution Control Summary (page 4 of 33) - the description of the emissions units control equipment was changed. The emission unit description was revised to read as follows:

1) Emitting units number one (1) is a Heidelberg Lithographic Heatset Offset Web Press model number M-9 equipped with a 0.75 MMBTU/hour natural gas fired dryer. The Heidelberg

Press has a maximum operating capacity of **25.58** ~~35.57~~ million square inches per hour. VOC and HAP emissions are controlled by a 3.36 MMBTU/hour Thermal Incinerator exhausting out one (1) stack identified as S_2.

2) Emitting units number two (2) is a Heidelberg Lithographic Heatset Offset Web Press model number M-600 equipped with a 0.75 MMBTU/hour natural gas fired dryer. The Heidelberg Press has a maximum operating capacity of **26.92** ~~45.14~~ million square inches per hour. VOC and HAP emissions are controlled by a 3.36 MMBTU/hour Thermal Incinerator exhausting out one (1) stack identified as S_2.

3) Emissions Unit number three (3) Videojet Printer, model number Excel 17089416. The Videojet Printer has a maximum ink usage of 0.5527 pounds per hour and a maximum usage of makeup solvent of 0.8357 pounds per hour. Emissions from this unit are vented into the building. This unit was installed in 1997.

Section D.1 (Page 26 of 33)

D.1.1 Volatile Organic Compound Emissions:[326 IAC 8-1-6][326 IAC 2-8-4(1)]

(a) Pursuant to 326 IAC 8-1-6 (General VOC Reduction Requirements for New Facilities), the VOC emissions from the M-9 and M-600 presses (emissions units #1 and #2) shall be controlled using Best Available Control Technology (BACT). BACT shall be:

1) use of a thermal incinerator to control VOC emissions at all times the presses are in operation,

2) a **capture** ~~collection~~ efficiency of **100%** ~~96%~~ for VOCs from Inks and **70%** ~~50%~~ for VOCs from fountain solutions, and

3) a destruction efficiency of **96% in the Thermal Oxidizer** ~~92%~~ for all VOCs collected.

(b) Pursuant to 326 IAC 2-8-4(1), the total VOC emissions from the model M-9 Heidelberg Press (emission unit #1), model M-600 Heidelberg-Harris Press (emission unit #2) and Videojet Printer (emission unit #3) shall not exceed 7.72 tons per month. This emissions limitation is equivalent to 98.28 tons per 365 day period such that the requirements of 326 IAC 2-7 (Part 70 Operating Permit) shall not apply.

Compliance Determination [326 IAC 2-8-4(3)] (Page 27 of 33)

D.1.4 Stack Testing Requirements [326 IAC 2-8-4(9)]

The Permittee shall conduct stack testing for VOCs at the inlet and outlet of the thermal incinerator within 120 days after the effective date of this permit. modification. The Permittee shall comply with the testing requirements specified in Sections C - Performance Testing, of this permit. During the stack test the usage of all VOC containing materials shall be monitored. The VOC emissions shall be calculated based on material usage, **established VOC capture efficiency, VOC retention factor, and Thermal Oxidizer** ~~and compared against the inlet VOC concentrations measured to ensure compliance with~~ **96%** ~~92%~~ **destruction** ~~collection~~ efficiency. ~~for inks and 50% collection efficiency for fountain solutions over all is achieved. The calculations shall assume a retention factor of 15 % for VOCs from the inks.~~

Compliance Assurance Monitoring Requirements [326 IAC 2-8-5(a)(1)] (Page 27 of 33)

D.1.5 Monitoring

(a) The Permittee shall monitor the temperature in the combustion zone of the thermal incinerator on a continuous basis. The Thermal Oxidizer shall maintain a minimum operating temperature of 1200^{0}F in the combustion zone, or the average temperature as determined in the most recent compliance tests which documents compliance with condition D.1.1.

(b) The Permittee shall monitor Dryer pressure to ensure that the pressure in the Dryer is lower than1 the pressure in the press room.

(c)~~(b)~~ The Preventive Maintenance Plan for the thermal incinerator shall contain troubleshooting contingencies and corrective actions for when the combustion temperature falls below the minimum temperature when any one of the presses are in operation.

(d)~~(c)~~ Additional inspections and preventive measures shall be preformed as prescribed in the Preventative Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] (Pages 27 and 28 of 33)

D.1.6 Recordkeeping Requirements

(a) To document compliance with condition D.1.1(c) the permittee shall maintain records in accordance with (1) through **(5)** ~~(4)~~. Records maintained for (1) through **(5)** ~~(4)~~ shall be complete and sufficient to establish compliance with VOC emissions limitation in condition D.1.1(c).

(1) The weight of VOC containing material used, including purchase orders and invoices necessary to verify the type and amount used;

(2) The VOC content (weight percent) of each material used;

(3) The weight of VOCs emitted for each compliance period, considering capture and control efficiency, if applicable; and

(4) The following operation parameters of the thermal oxidizer:

~~(i) VOC capture efficiency;~~

(i) ~~(ii)~~ VOC destruction efficiency of the control device;

(ii) ~~(iii)~~ A description of the data used to establish the capture and destruction efficiencies; and

(iii) ~~(iv)~~ Continuous temperature readings in the combustion zone of the thermal oxidizer.

(5) The following operation parameters of the Dryer Pressure Differential Monitor:

(1) Pressure difference between the Dryer and the press room recorded once per shift when the press is operating.