MICHIGAN DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
AIR QUALITY DIVISION

October 25, 2010

PERMIT TO INSTALL
No. 107-10

ISSUED TO
McKay Press, Inc.

LOCATED AT
7600 West Wackerly Street
Midland, Michigan

IN THE COUNTY OF
Midland

STATE REGISTRATION NUMBER
P0111

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Natural Resources and Environment. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **August 17, 2010**	
DATE PERMIT TO INSTALL APPROVED: **October 25, 2010**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

Common Acronyms		Pollutant/Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
ANSI	American National Standards Institute	°C	Degrees Celsius
BACT	Best Available Control Technology	CO	Carbon Monoxide
CAA	Clean Air Act	dscf	Dry standard cubic foot
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter
CFR	Code of Federal Regulations	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO_x	Oxides of Nitrogen
MDNRE	Michigan Department of Natural Resources and Environment (Department)	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM10	PM less than or equal to 10 microns diameter
MSDS	Material Safety Data Sheet	PM2.5	PM less than or equal 2.5 microns diameter
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour
NSPS	New Source Performance Standards	ppm	Parts per million
NSR	New Source Review	ppmv	Parts per million by volume
PS	Performance Specification	ppmw	Parts per million by weight
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge
PTI	Permit to Install	scf	Standard cubic feet
RACT	Reasonably Available Control Technology	sec	Seconds
ROP	Renewable Operating Permit	SO_2	Sulfur Dioxide
SC	Special Condition	THC	Total Hydrocarbons
SCR	Selective Catalytic Reduction	tpy	Tons per year
SRN	State Registration Number	µg	Microgram
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds
TEQ	Toxicity Equivalence Quotient	yr	Year
VE	Visible Emissions		

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Natural Resources and Environment, P.O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Natural Resources and Environment. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EU-HEATSET-01	7C 26" Harris Heatset Webfed Offset Lithographic Printing Press with Manual Blanket and Roller Wash. Controlled by a Regenerative Thermal Oxidizer (RTO). Stack ID: SV-RTO	October 2010	FGFACILITY
EU-SHEETFED-01	6C Komori 28" X 40" Sheetfed Offset Lithographic Printing Press with Aqueous Coating Capability. Automatic Blanket and Roller Wash. Stack ID: NA (In-plant emissions)	October 2010	FGSHEETFED FGFACILITY
EU-SHEETFED-02	6C Komori 28" X 40" Sheetfed Offset Lithographic Printing Press with Aqueous Coating Capability. Automatic Blanket and Roller Wash. Stack ID: NA (In-plant emissions)	October 2010	FGSHEETFED FGFACILITY
EU-SHEETFED-03	2C 12.25" X 18" Envelope Jet Sheetfed Offset Lithographic Printing Press with Manual Wash. Stack ID: NA (In-plant emissions)	October 2010	FGSHEETFED FGFACILITY
EU-INKJET-01	Domino Inkjet Label Printing System Stack ID: NA (In-plant emissions)	October 2010	FGPRINTER FGFACILITY
EU-INKJET-02	Buskro Inkjet Label Printing System Stack ID: NA (In-plant emissions)	October 2010	FGPRINTER FGFACILITY
EU-DIGITAL-01	HP Indigo 5500 Digital Printing Press Stack ID: NA (In-plant emissions)	October 2010	FGPRINTER FGFACILITY
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

The following conditions apply to: EU-HEATSET-01

DESCRIPTION: 7C 26" Harris Heatset Webfed Offset Lithographic Printing Press with Manual Blanket and Roller Wash.

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: RTO for VOC emissions

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOCs	2.5 tpy*	12-month rolling time period as determined at the end of each calendar month	EU-HEATSET-01	SC VI.1 SC VI.3 SC VI.5	R 336.1205(3), R 336.1702(a)

*Total combined stack plus fugitive emissions.

Applicable VOC Emission Factors:

Ink: Retention rate of 20 percent of the VOC in the oil based ink applied to the paper, with 100 percent by weight overall capture efficiency of the remaining 80 percent by weight of VOC emitted and a destruction efficiency of 95 percent by weight.

Fountain Solution: The fountain solution has no retention factor and fugitive emissions of 30 percent, with 100 percent by weight overall capture efficiency of the remaining 70 percent by weight of VOC emitted and a destruction efficiency of 95 percent by weight.

Cleanup Solution (*e.g. B*lanket Wash, Roller Wash): 100 percent by weight as fugitive emissions for the manual wash system, there is no capture of the cleanup solution emissions. No credit was allowed for Solvent retention in wiping towels.

References:

- Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing, EPA-453/R-06-002, September 2006.
- Alternative Control Techniques Document: Offset Lithographic Printing, USEPA 453/R-94-054, June 1994.
- DRAFT Guideline Series – Control of VOC Emissions from Offset Lithographic Printing, USEPA, Sept. 1993.

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall recover and reclaim, recycle, or dispose of all inks, fountain solutions, and blanket/roller wash (materials), in accordance with all applicable regulations. **(R 336.1225, R 336.1702(a), R 336.1901)**

2. The permittee shall capture all waste materials and store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1225, R 336.1702(a), R 336.1901)**

3. The permittee shall handle all VOC and/or HAP containing materials in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1225, R 336.1702(a), R 336.1901)**

4. The permittee shall not operate EU-HEATSET-01 unless a malfunction abatement plan (MAP) as described in Rule 911(2), for the RTO, has been submitted within 60 days of RTO installation, and is implemented and maintained. If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EU-HEATSET-01 unless the associated dryer is installed, maintained and operated in a satisfactory manner. Satisfactory operation requires that the dryer is operating at a pressure lower than all adjacent areas so that air flows into the dryer through all natural draft openings at all times. This shall be achieved by using existing built-in interlock system which will trigger automatically and shuts off the appropriate press if the dryer is not operating in negative pressure. **(R 336.1225, R 336.1702(a), R 336.1910)**

2. The permittee shall not operate EU-HEATSET-01 unless the RTO is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the RTO requires a minimum VOC destruction efficiency of 95 percent (by weight), and maintaining a minimum temperature of 1450 °F and a minimum retention time of 0.5 seconds. **(R 336.1225, R 336.1702(a), R 336.1901, R 336.1910)**

3. The permittee shall install, calibrate, maintain, and operate in a satisfactory manner a temperature monitoring device to continuously monitor the temperature of the RTO. **(R 336.1225, R 336.1702(a), R 336.1901)**

4. The permittee shall implement the following listed pollution prevention exercises for EU-HEATSET-01: **(R 336.1225, R 336.17029(a), R 336.1901)**

   a. Collected solvents and solvent saturated towels or wipes shall be managed in a manner that minimizes emissions and will be disposed in accordance with applicable regulations.
   b. All press related cleaning solvents (blanket and roller washes) shall have composite (individual) partial vapor pressures that do not exceed 10 mmHg@20^{o}C(68^{o}F).
   c. All containers of new and used VOC-containing press related cleaning materials (blanket and roller washes, and solvent-containing cleaning towels) shall be kept closed at all times.

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall annually test and certify the built-in interlock system to show compliance with SC IV.1. **(R 336.1225, R 336.1702(a), R 336.1901)**

2. The permittee shall determine the VOC content of any material, as received and as applied, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's VOC formulation data using federal Reference Test Method 24 (inks, coatings, fountain

solution additives and cleaning solvents) or 24A (only applies to solvent-borne inks and related coatings used in the publication rotogravure industry). **(R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

3. Within 60 days of achieving the maximum production rate, but not later than 365 days after commencement of initial startup, the permittee shall verify the destruction efficiency of the RTO ducted to EU-HEATSET-01, by testing at owner's expense, in accordance with Department requirements. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of destruction efficiency includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1205, R 336.1225, R 336.1702(a), R 336.1901, R 336.1901, R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1225, R 336.1702(a))**

2. The permittee shall monitor and record, in a satisfactory manner, the bed temperature of the thermal oxidizer, on a continuous basis, during operation of EU-HEATSET-01. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. Any changes in device type, location or ability to monitor and record the temperature in satisfactory manner requires prior approval by the Air Quality Division District Supervisor. **(R 336.1225, R 336.1702(a), R 336.1901)**

3. The permittee shall keep a separate written record of the following for the EU-HEATSET-01 on a calendar month averaging period:

   a) The type (ink, fountain solution, cleanup solvent such as blanket/roller wash, thinning, *etc.*) of each material used.
   b) The VOC content of each VOC containing material as received and as applied (in percent by weight or pounds per gallon).
   c) The usage rate (in pounds or gallons) of each material as applied.
   d) The amount (in pounds or gallons) of each material reclaimed.
   e) Record to demonstrate compliance with SC IV.4.b.
   f) VOC emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

   The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205(3), R 336.1225, R 336.1702(a))**

4. The permittee shall keep records of the bed temperature of the RTO. The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request. **(R 336.1225, R 336.1702(a), R 336.1901)**

5. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1225, R 336.1702(a), R 336.1901)**

6. The permittee shall keep annual testing and certification records of the built-in interlock system to show compliance with SC V.1. All records shall be kept on file for a period of five years and made available to the Department upon request. **(R 336.1225, R 336.1702(a), R 336.1901)**

VII. REPORTING

1. Within 30-days after the completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or authorized agent per Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EU-HEATSET-01. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-RTO	12 x 12	34	R 336.1225, R 336.1901, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

1. Within 30 calendar days after the issuance of this permit, the permittee shall label each emission unit with a method acceptable to the District Supervisor. The permittee must notify the District Supervisor, Air Quality Division, in writing as to the date that the labeling was completed. This notification shall take place within 15 calendar days after the labeling has been completed. **(R 336.1201)**

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGSHEETFED	Two Sheetfed Offset Lithographic Printing Presses and One Sheetfed Envelope Press	EU-SHEETFED-01 EU-SHEETFED-02 EU-SHEETFED-03
FGPRINTERS	Two inkjet label printing systems and one HP Indigo 5500 Digital Printing Press	EU-INKJET-01 EU-INKJET-02 EU-DIGITAL-01
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	

The following conditions apply to: FGSHEETFED

DESCRIPTION: Two Sheetfed Offset Lithographic Printing Presses and One Sheetfed Envelope Press

Emission Units: EU-SHEETFED-01, EU-SHEETFED-02, and EU-SHEETFED-03

POLLUTION CONTROL EQUIPMENT: None

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC Content of the Fountain Solution	< 5% By Weight as Applied	Per change in type of fountain solution	Each Emission Unit of the FGSHEETFED	SC VI.1 SC VI.3 SC VI.4	R 336.1702(a)
2. VOC	16.0* tpy	12-month rolling time period as determined at the end of each calendar month	FGSHEETFED	SC VI.1 SC VI.2 SC VI.4	R 336.1702(a)

*Total combined fugitive emissions.

Non-heatset Ink: Retention rate of 95 percent of the VOC in the oil based ink applied to the paper, the remaining 5 percent by weight of VOC emitted.

Cleanup Solution (*e.g. B*lanket Wash, Roller Wash): 100 percent by weight as fugitive emissions. No credit for Solvent retention in wiping towels.

References:

- *Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing*, EPA-453/R-06-002, September 2006.
- Alternative Control Techniques Document: Offset Lithographic Printing, USEPA 453/R-94-054, June 1994.
- DRAFT Guideline Series – Control of VOC Emissions from Offset Lithographic Printing, USEPA, Sept. 1993.

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. All waste inks and cleaning solvents shall be captured and stored in closed containers and shall be disposed of in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1901)**

2. The permittee shall properly dispose of VOC-containing used shop towels. **(R 336.1225, R 336.1702(a), R 336.1901)**

3. All printing press-related cleaning solvents shall have composite partial vapor pressures that do not exceed 10 mmHg@20^{o}C(68^{o}F). **(R 336.1225, R 336.1702(a), R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall determine the VOC content of any material, as received and as applied, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's VOC formulation data using federal Reference Test Method 24 (inks, coatings, fountain solution additives and cleaning solvents) or 24A (only applies to solvent-borne inks and related coatings used in the publication rotogravure industry). **(R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a))**

2. The permittee shall keep written record of the following for the FGSHEETFED on a calendar month period:

    a) The type (ink, fountain solution, cleanup solvent such as blanket/roller wash, thinning, *etc.*) of each material used.
    b) Chemical composition of fountain solution, including weight percent of each component.
    c) The VOC content of each VOC containing material as received and as applied (in percent by weight or pounds per gallon).
    d) The usage rate (in pounds or gallons) of each material as applied.
    e) The amount (in pounds or gallons) of each material reclaimed.
    f) Record to demonstrate compliance with SC III.3.
    g) VOC emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

    The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1225,**

R 336.1702(a))

3. The permittee shall calculate the VOC content of the fountain solution using the method detailed in Appendix A or an alternate method approved by the AQD District Supervisor. Calculations shall include both dampening aid and wetting agent, as used, in percent by weight. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1225, R 336.1702(a))**

4. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each VOC containing material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1901)**

VII. REPORTING

1. Within 30-days after the completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or authorized agent per Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGSHEETFED. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTIONS

NA (In-plant emissions)

IX. OTHER REQUIREMENTS

1. Within 30 calendar days after the issuance of this permit, the permittee shall label each emission unit with a method acceptable to the District Supervisor. The permittee must notify the District Supervisor, Air Quality Division, in writing as to the date that the labeling was completed. This notification shall take place within 15 calendar days after the labeling has been completed. **(R 336.1201)**

Footnotes:

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to: FGPRINTERS

DESCRIPTION: Two inkjet label printing systems and a HP 5500 Indigo digital printing press

Emission Units: EU-INKJET-01, EU-INKJET-02, and EU-DIGITAL-01

POLLUTION CONTROL EQUIPMENT: None

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	3.05* tpy	12-month rolling time period as determined at the end of each calendar month	FGPRINTERS	SC VI.1 SC VI.2 SC VI.4	R 336.1702(a)
*Total combined fugitive emissions.					

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall recover and reclaim, recycle, or dispose of all inks in accordance with all applicable regulations. **(R 336.1225, R 336.1702(a), R 336.1901)**

2. The permittee shall capture all waste materials and store them in closed containers. The permittee shall dispose of all waste materials in an acceptable manner in compliance with all applicable state rules and federal regulations. **(R 336.1225, R 336.1702(a), R 336.1901)**

3. The permittee shall handle all VOC and/or HAP containing materials in a manner to minimize the generation of fugitive emissions. The permittee shall keep containers covered at all times except when operator access is necessary. **(R 336.1225, R 336.1702(a), R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall determine the VOC content of any material, as received and as applied, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's VOC formulation data using federal Reference Test Method 24 (inks, coatings, fountain solution additives and cleaning solvents) or 24A (only applies to solvent-borne inks and related coatings used in the publication rotogravure industry). **(R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205(3), R 336.1224, R 336.1225, R 336.1702(a))**

2. The permittee shall keep written record of the following for the FGPRINTERS on a calendar month period:

   a) The type (ink and coatings, etc.) of each material used.
   b) The VOC content of each VOC containing material as received and as applied (in percent by weight or pounds per gallon).
   c) The usage rate (in pounds or gallons) of each material as applied.
   d) The amount (in pounds or gallons) of each material reclaimed.
   e) VOC emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

   The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1225, R 336.1702(a))**

3. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each VOC containing material, including the weight percent of each component. The data may consist of Material Safety Data Sheets, manufacturer's formulation data, or both as deemed acceptable by the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702(a), R 336.1901)**

VII. REPORTING

1. Within 30-days after the completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or authorized agent per Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of FGINKJET. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTIONS

NA (In-plant emissions)

IX. OTHER REQUIREMENTS

1. Within 30 calendar days after the issuance of this permit, the permittee shall label each emission unit with a method acceptable to the District Supervisor. The permittee must notify the District Supervisor, Air Quality Division, in writing as to the date that the labeling was completed. This notification shall take place within 15 calendar days after the labeling has been completed. **(R 336.1201)**

Footnotes:

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply Source-Wide to: FGFACILITY

POLLUTION CONTROL EQUIPMENT: RTO for EU-HEATSET-01, all other emission units are fugitive in-plant emissions.

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1.. Each Individual HAP	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.3	R 336.1205(3)
2. Aggregate HAPs	Less than 22.5 tpy	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.3	R 336.1205(3)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The HAP content of any material (ink, fountain solution, cleanup solvent (blanket/roller cleaning solvents), thinning, *etc.*), as applied and as received, shall be determined using manufacturer's formulation data. Upon request of the District Supervisor, the HAP content of manufacturer's formulation data shall be verified using Method 311. **(R 336.1702(a), R 336.2001, R 336.2003, R 336.2004)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. All required calculations shall be completed in a format acceptable to the AQD District Supervisor and made available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205(3), R 336.1225, R 336.1901)**

2. The permittee shall maintain a current listing from the manufacturer of the chemical composition of each material (ink, fountain solution, cleanup solvent (blanket/roller cleaning solvents), thinning, *etc.*), including the weight percent of each component. The data may consist of Material Safety Data Sheets,

manufacturer's formulation data, or both. The data shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1224, R 336.1225, R 336.1702(a))**

3. The permittee shall keep the following information on a monthly basis for the FGFACILITY:

   a) Gallons used of each material;
   b) Gallons reclaimed of each material, where applicable (typically cleanup or purge solvent);
   c) HAP content, in pounds per gallon, of each material;
   d) Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per month; and
   e) Individual and aggregate HAP emission calculations determining the yearly emission rate of each in tons per 12-month rolling time period as determined at the end of each calendar month.

   The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five (5) years and made available to the Air Quality Division upon request. **(R 336.1205(3), R 336.1299(e))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

Appendix A
Weight Percent of VOCs* in Fountain Solution
For Offset Lithographic Printing

Month/Year:

		A	B	C	D	E[1]
Date	**Material ID**	**Material Used as received (gallons)**	**Material Density (lbs/gal)**	**VOC Content as received (wt %)**	**Water Used (gallons)**	**VOC Content as used (wt %)**

***** Include both dampening aid and wetting agent, as used, in percent by weight.

VOC Weight Percent Limit = 5%

[1] To Calculate the VOC weight percent use the following equation:

$$E = \frac{\left(A \times B \times \frac{C}{100}\right) \times 100}{(A \times B) + (D \times 8.34)} = \frac{(A \times B \times C)}{(A \times B) + (D \times 8.34)}$$

For C, if 9% use 9 not 0.09
E shall be less than or equal to 5%