

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

March 11, 2015

**PERMIT TO INSTALL
137-12A**

**ISSUED TO
LTi Printing, Inc.**

**LOCATED AT
518 North Centerville Road
Sturgis, Michigan**

**IN THE COUNTY OF
Saint Joseph**

**STATE REGISTRATION NUMBER
A6405**

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. 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:

March 9, 2015

DATE PERMIT TO INSTALL APPROVED:

March 11, 2015

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
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
CO ₂ e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H ₂ S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	kW	Kilowatt
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
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	PM with aerodynamic diameter ≤10 microns
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM with aerodynamic diameter ≤ 2.5 microns
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonably Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO ₂	Sulfur Dioxide
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TAC	Toxic Air Contaminant	µg	Microgram
TEQ	Toxicity Equivalence Quotient	VOC	Volatile Organic Compound
VE	Visible Emissions	yr	Year

* 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 Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, 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 Environmental Quality. **(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
EUOFFSETPRESS77	Non-Heatset Sheetfed Offset Lithographic Printing Press; Heidelberg Speedmaster XL 106. Automatic and Manual Blanket and Roller Wash	03-10-2015	FGOFFSET, FGFACILITY
EUOFFSETPRESS78	Non-Heatset Sheetfed Offset Lithographic Printing Press; Heidelberg Speedmaster XL 106. Automatic and Manual Blanket and Roller Wash	03-10-2015	FGOFFSET, FGFACILITY
EUFLEXOPRESS01	Web Flexographic Printing Press; Arpeco; 7 Color	01-02-1991	FGFLEXO, FGFACILITY
EUFLEXOPRESS03	Web Flexographic Press; Mark Andy #3; 8 Color	01-02-1991	FGFLEXO, FGFACILITY
EUFLEXOPRESS05	Web Flexographic Press; Mark Andy #5; 8 Color	01-02-1991	FGFLEXO, FGFACILITY
EUFLEXOPRESS06	Web Flexographic Press; Webtron; 5 Color	01-02-1991	FGFLEXO, FGFACILITY
EUFLEXOPRESS07	Web Flexographic Press; Mark Andy #7; 8 Color	01-02-1991	FGFLEXO, FGFACILITY
EUFLEXOPRESS08	Web Flexographic Press; Webtron; 8 Color	01-02-1991	FGFLEXO, FGFACILITY
EUFLEXOPRESS12	Web Flexographic Press; Mark Andy LP 3000; 10 Color	01-02-1991	FGFLEXO, FGFACILITY
EUFLEXOPRESSROTO	Web Flexographic Printing Press; 8 Color	01-02-1991	FGFLEXO, FGFACILITY
EUPLATEMAKING	Web Flexographic Platemaking Process.	01-02-1991	FGFLEXO, FGFACILITY
EUWASHTANK1	Web Flexographic Parts Washing Tank	01-02-1991	FGFLEXO, FGFACILITY
EUWASHTANK2	Web Flexographic Parts Washing Tank	01-02-1991	FGFLEXO, FGFACILITY
EUWASHTANK3	Web Flexographic Parts Washing Tank	01-02-1991	FGFLEXO, FGFACILITY
EUDIPTANK	Web Flexographic Corrosive Dip Tank	01-02-1991	FGFLEXO, 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.			

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
FGOFFSET	Two Non-Heatset Sheetfed Offset Lithographic Printing Presses Including Automatic and Manual Wash System.	EUOFFSETPRESS77, EUOFFSETPRESS78
FGFLEXO	Eight Flexographic Printing Presses, one Platemaking process, three Parts Washing Tanks and one Corrosive Dip Tank.	EUFLEXOPRESS01, EUFLEXOPRESS03, EUFLEXOPRESS05, EUFLEXOPRESS06, EUFLEXOPRESS07, EUFLEXOPRESS08, EUFLEXOPRESS12, EUFLEXOPRESSROTO, EUPLATEMAKING, EUWASHTANK1, EUWASHTANK2, EUWASHTANK3, EUDIPTANK
FGFACILITY	All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.	All process equipment source-wide

The following Flexible Group conditions apply to: FGOFFSET

DESCRIPTION: Two Non-Heatset Sheetfed Offset Lithographic Printing Presses Including Automatic and Manual Wash System.

Emission Units: EUOFFSETPRESS77, EUOFFSETPRESS78

POLLUTION CONTROL EQUIPMENT: N/A

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	20 tpy	12-month rolling time period as determined at the end of each calendar month	FGOFFSET	SC VI.1, SC VI.2, SC VI.4	R 336.1205, R 336.1225, R 336.1702(a)

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC Content of the Fountain Solution	< 5% By Weight as Applied	Instantaneous	FGOFFSET	SC VI.1, SC VI.3, SC VI.4	R 336.1702(a)

III. PROCESS/OPERATIONAL RESTRICTIONS

1. All VOC-containing inks, fountain solution, cleaning solvents such as blanket and roller washes, used shop towels, etc. (materials) shall be stored in closed containers and shall be handled / disposed of in an acceptable manner, in compliance with all applicable state Air Quality rules and federal Air Quality regulations. **(R 336.1225, R 336.1702(a), R 336.1901)**
2. 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 336.1205, R 336.1225, R 336.1702(a), R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETERS

N/A

V. TESTING/SAMPLING

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

1. The VOC content of any material, as received and as applied, shall be determined 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) pursuant to Rule 1040(5). Upon prior written approval by the AQD District Supervisor, VOC content may be determined from manufacturer's formulation data. If the Method 24 or 24A and the formulation values should differ, the Method 24 or 24A results shall be used to determine compliance. **(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 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205, R 336.1225, R 336.1702)**
2. The permittee shall keep written record of the following for the FGOFFSET on a calendar month period:
 - a) Identification of the category (ink, coating, blanket wash, roller wash, press wash, etc.) of each VOC containing material used and reclaimed.
 - b) The VOC content of each material as received and as-applied (in percent by weight or pounds per gallon).
 - c) The usage and reclaim (in pounds or gallons) of each VOC containing material.
 - d) 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 made available to the Department upon request. **(R 336.1205, 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. The permittee shall keep all records on file at the facility and make them 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 manufacturer's formulation data as deemed acceptable by the AQD District Supervisor. All records shall be kept on file and made available to the Department upon request. **(R 336.1225, R 336.1702, R 336.1901)**

VII. REPORTING

N/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. SVOFFSET77	20	16	R 336.1225 ¹
2. SVOFFSET78	20	16	R 336.1225 ¹

IX. OTHER REQUIREMENTS

1. Within 30 days of issuance of this permit, the permittee shall label each emission unit according to a method acceptable to the AQD District Supervisor. Within seven days of completing the labeling, the permittee shall notify the AQD District Supervisor, in writing, as to the date the labeling was completed. **(R 336.1201)**

Footnotes:

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

The following conditions apply to : FGFLEXO

DESCRIPTION: Eight Flexographic Printing Presses, one Platemaking process, three Parts Washing Tanks and one Corrosive Dip Tank.

Emission Unit ID: EUFLEXOPRESS01, EUFLEXOPRESS03, EUFLEXOPRESS05, EUFLEXOPRESS06, EUFLEXOPRESS07, EUFLEXOPRESS08, EUFLEXOPRESS12, EUROTOPRESS, EUPLATEMAKING, EUWASHTANK1, EUWASHTANK2, EUWASHTANK3, EUDIPTANK

POLLUTION CONTROL EQUIPMENT: N/A

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	9.1 tpy	12-month rolling time period as determined at the end of each calendar month	FGFLEXO	SC VI.1, SC VI.2, SC VI.3	R 336.1205, R 336.1702(d), R 336.1225

II. MATERIAL LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC content of the inks and coatings	Shall not exceed 25%, by volume of the total volatile fraction, as applied Or The non-volatile fraction must be greater than 60% by volume of coating or ink, minus water, as applied	Instantaneous	Each Flexographic Press	SC VI.1, SC VI.3	R 336.1702(a),

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall capture all waste inks, coatings, cleanup solvents (e.g. press wash, roller wash), etc. (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 336.1205, R 336.1225, R 336.1702(a), R 336.1901)**
2. 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 336.1205, R 336.1225, R 336.1702(a), R 336.1901)**

IV. DESIGN/EQUIPMENT PARAMETERS

N/A

V. TESTING/SAMPLING

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

1. The VOC content of any material, as received and as applied, shall be determined 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) pursuant to Rule 1040(5). Upon prior written approval by the AQD District Supervisor, VOC content may be determined from manufacturer's formulation data. If the Method 24 or 24A and the formulation values should differ, the Method 24 or 24A results shall be used to determine compliance. **(R 336.1702, 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. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205, R 336.1225, R 336.1702)**
2. The permittee shall keep a written record of the following for FGFLEXO on a calendar month averaging period:
 - a) The type of each material used.
 - b) Chemical composition of each material, including weight percent of each component.
 - c) The VOC content of each material, with and without water and exempt solvents, (in percent by weight or pounds per gallon), as received and as applied.
 - d) The usage rate (in pounds or gallons) of each material as applied.
 - e) The amount (in pounds or gallons) of material reclaimed for each emission unit.
 - 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.
 - g) VOC content of the inks and coatings, as a percentage of the total volatile fraction, including water, on an instantaneous basis; or the non-volatile volume fraction of the inks and coatings as a percent of the ink or coating total volume, minus water, based upon instantaneous.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor and make them available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702(a))**

3. 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 as deemed acceptable by the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702, R 336.1901)**

VII. REPORTING

N/A

VIII. STACK/VENT RESTRICTIONS

N/A

IX. OTHER REQUIREMENTS

1. Within 30 days of issuance of this permit, the permittee shall label each emission unit according to a method acceptable to the AQD District Supervisor. Within seven days of completing the labeling, the permittee shall notify the AQD District Supervisor, in writing, as to the date the labeling was completed. **(R 336.1201)**

The following conditions apply Source-Wide to: FGFACILITY

POLLUTION CONTROL EQUIPMENT: N/A

I. EMISSION LIMITS

N/A

II. MATERIAL LIMITS

Material	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. *BLEND IMAGESOLV RI	515.0 gallons per year	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1 SC VI.2	R 336.1225(2)

*Restriction in place due to presence of Polycyclic Aromatics

III. PROCESS/OPERATIONAL RESTRICTIONS

N/A

IV. DESIGN/EQUIPMENT PARAMETERS

N/A

V. TESTING/SAMPLING

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

N/A

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205)**
2. The permittee shall keep the following information on a calendar month basis for FGFACILITY:
 - a) Gallons of BLEND IMAGESOLV RI used.
 - b) Where applicable, gallons BLEND IMAGESOLV RI material reclaimed.
 - c) Usage rate of BLEND IMAGESOLV RI in gallons per calendar month.
 - d) Usage rate of BLEND IMAGESOLV RI in gallons per 12-month rolling time period as determined at the end of each calendar month.

The permittee shall keep the records in a format acceptable to the AQD District Supervisor. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(3))**

VII. REPORTING

N/A

VIII. STACK/VENT RESTRICTIONS

N/A

IX. OTHER REQUIREMENTS

N/A

