

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

November 20, 2017

**PERMIT TO INSTALL
101-17**

**ISSUED TO
Multi Packaging Solutions**

**LOCATED AT
13 4th Street
Holland, Michigan**

**IN THE COUNTY OF
Ottawa**

**STATE REGISTRATION NUMBER
N5214**

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:

June 29, 2017

DATE PERMIT TO INSTALL APPROVED:

November 20, 2017

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

PERMIT TO INSTALL

Table of Contents

Section	Page
Alphabetical Listing of Common Abbreviations / Acronyms	2
General Conditions	3
Special Conditions	5
Emission Unit Summary Table.....	5
Flexible Group Summary Table	6
Flexible Group Conditions for FG-PrintingPakMfg.....	7
Special Conditions for FG-Facility.....	10
Appendix A: Weight Percent of VOCs in Fountain Solution	12

Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO _{2e}	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
EU	Emission Unit	gr	Grains
FG	Flexible Group	HAP	Hazardous Air Pollutant
GACS	Gallons of Applied Coating Solids	Hg	Mercury
GC	General Condition	hr	Hour
GHGs	Greenhouse Gases	HP	Horsepower
HVLP	High Volume Low Pressure*	H ₂ S	Hydrogen Sulfide
ID	Identification	kW	Kilowatt
IRSL	Initial Risk Screening Level	lb	Pound
ITSL	Initial Threshold Screening Level	m	Meter
LAER	Lowest Achievable Emission Rate	mg	Milligram
MACT	Maximum Achievable Control Technology	mm	Millimeter
MAERS	Michigan Air Emissions Reporting System	MM	Million
MAP	Malfunction Abatement Plan	MW	Megawatts
MDEQ	Michigan Department of Environmental Quality	NMOC	Non-methane Organic Compounds
MSDS	Material Safety Data Sheet	NO _x	Oxides of Nitrogen
NA	Not Applicable	ng	Nanogram
NAAQS	National Ambient Air Quality Standards	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	Particulate Matter equal to or less than 10 microns in diameter
NSPS	New Source Performance Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonable Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO ₂	Sulfur Dioxide
SNCR	Selective Non-Catalytic Reduction	TAC	Toxic Air Contaminant
SRN	State Registration Number	Temp	Temperature
TEQ	Toxicity Equivalence Quotient	THC	Total Hydrocarbons
USEPA/EPA	United States Environmental Protection Agency	tpy	Tons per year
VE	Visible Emissions	µg	Microgram
		µm	Micrometer or Micron
		VOC	Volatile Organic Compounds
		yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 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
EU-Press-01	2011 Conventional sheet-fed offset lithographic printing press, Heidelberg CX-102 8+L, maximum sheet size 28" x 40". Automatic and/or manual blanket wash.	2011	FG-PrintingPakMfg, FG-Facility
EU-Press-02	2006 Conventional sheet-fed offset lithographic printing press, Heidelberg CX-102 8+L, maximum sheet size 28" x 40". Automatic and/or manual blanket wash.	2006	FG-PrintingPakMfg, FG-Facility
EU-Press-03	2003 Conventional and UV sheet-fed offset lithographic printing press, Heidelberg CX-102 6+L, maximum sheet size 28" x 40". Automatic and/or manual blanket wash.	2003	FG-PrintingPakMfg, FG-Facility
EU-Press-04	2000 Conventional sheet-fed offset lithographic printing press, Heidelberg CX-102 6+L, maximum sheet size 28" x 40". Automatic and/or manual blanket wash.	2000	FG-PrintingPakMfg, FG-Facility
EU-Digital-01	Kirk Rudy IR inkjet labeler Model 882-1 2009	2009	FG-PrintingPakMfg, FG-Facility
EU-Digital-02	Kirk Rudy IR inkjet labeler Model 882-1 2011	2011	FG-PrintingPakMfg, FG-Facility
EU-DieCutter-01	B1-Sheet fed, unheated platen, non blanking Bobst 1998 Model SP102-CERII	1998	FG-PrintingPakMfg, FG-Facility
EU-DieCutter-02	B2-Sheet fed, blanking Bobst die cutter. 2001 Model SP102-EII	2001	FG-PrintingPakMfg, FG-Facility
EU-DieCutter-03	B3-Sheet fed, non blanking Bobst 2003 Model SP104-E	2003	FG-PrintingPakMfg, FG-Facility
EU-DieCutter-04	B4-Sheet fed, blanking Bobst 2002 Model SP104-ER	2002	FG-PrintingPakMfg, FG-Facility
EU-Folder-Gluer-01	FG01-Signature Model 90 Max blank size 36 inches wide	2006	FG-PrintingPakMfg, FG-Facility
EU-Folder-Gluer-02	FG02-International Model 40 Max blank size 40 inches wide	1993	FG-PrintingPakMfg, FG-Facility
EU-Folder-Gluer-03	FG03-Bobst Model 110 Domino Max blank size 45 inches wide	1993	FG-PrintingPakMfg, FG-Facility
EU-Folder-Gluer-04	FG04-International Model 33 Max blank size 33 inches wide	1981	FG-PrintingPakMfg, FG-Facility

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
FG-PrintingPakMfg	Four sheet-fed offset lithographic printing presses. The printers are cleaned automatically and/or manually with blanket wash.	EU-Press-01, EU-Press-02, EU-Press-03, EU-Press-04
	Two digital (inkjet) labelers	EU-Digital-01, EU-Digital-02
	Four die cutters	EU-DieCutter-01, EU-DieCutter-02, EU-DieCutter-03, EU-DieCutter-04
	Four folder/gluer	EU-Folder-Gluer-01, EU-Folder-Gluer-02, EU-Folder-Gluer-03, EU-Folder-Gluer-04
FG-Facility	All process equipment source-wide including equipment covered by other permits, grandfathered equipment and exempt equipment.	NA

The following Flexible Group conditions apply to: FG-PrintingPakMfg

DESCRIPTION: Four sheet-fed offset lithographic printing presses and its associated two inkjet labelers, four die cutters, and four folder/gluer. The printers are cleaned automatically and/or manually with blanket wash.

Emission Units: EU-Press-01, EU-Press-02, EU-Press-03, EU-Press-04, EU-Digital-01, EU-Digital-02, EU-DieCutter-01, EU-DieCutter-02, EU-DieCutter-03, EU-DieCutter-04, EU-Folder-Gluer-01, EU-Folder-Gluer-02, EU-Folder-Gluer-03, EU-Folder-Gluer-04

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOCs	34.8 tpy	12-month rolling time period as determined at the end of each calendar month	FG-PrintingPakMfg	SC VI.1, SC VI.2, SC VI.3	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	5.0 % By weight, as applied	Instantaneous	EU-Press-01, EU-Press-02, EU-Press-03, EU-Press-04	SC V.2, SC VI.1, SC VI.2, SC VI.3, Appendix A	R 336.1702(a)
2. VOC Content of Glue	2.9 % By weight, as applied	Instantaneous	EU-Folder-Gluer-01, EU-Folder-Gluer-02, EU-Folder-Gluer-03, EU-Folder-Gluer-04	SC VI.1, SC VI.2, SC VI.3	R 336.1702(a)
3. Fountain Solution	1,400 lbs per month	Monthly	FG-PrintingPakMfg	SC VI.1, SC VI.2, SC VI.3, SC VI.4	R 336.1225
4. ECURE140 LVTR	7,500 lbs per month	Monthly	EU-Press-03	SC VI.1, SC VI.2, SC VI.4, SC VI.5	R 336.1225

III. PROCESS/OPERATIONAL RESTRICTIONS

- All VOC-containing inks, fountain solution, coatings, cleaning solvents such as blanket and roller washes, used shop towels, etc. (materials) shall be stored in closed containers and 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))**

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 336.1224, R 336.1225, R 336.1702(a))**
3. All printing press-related cleaning solvents shall have VOC composite partial vapor pressures that do not exceed 10 mmHg @ 20°C (68°F). **(R 336.1702(a))**

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 verify the VOC content of any ink, coating, *etc.* (material), as received and as applied, using federal Reference Test Method 24 or 24A 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))**
2. The permittee shall verify the VOC content of the fountain solution as received and as applied, using federal Reference Test Method 24 or 24A pursuant to Rule 1040(5) on an annual basis. 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 336.225, 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 last 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(a))**
2. 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. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1225, R 336.1702)**
3. The permittee shall keep the following information on a calendar month basis for FG-PrintingPkgMfg:
 - a) The type of operation (type of press (sheet-fed or digital), die cutter, folder/gluer)
 - b) The type of each VOC containing material used and reclaimed (ink, coating, blanket wash, roller wash, press wash, *etc.*)
 - c) The amount of fountain solution used in pounds.
 - d) The VOC content of each material as received and as-applied (in percent by weight or pounds per gallon)
 - e) VOC mass emission calculations determining the monthly emission rate in tons per calendar month. (Retention factors from Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing, EPA-453/R-06-002, September 2006 may be used or an alternate factor approved by the AQD District Supervisor)
 - 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. (Retention factors from Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing, EPA-453/R-06-002, September 2006 may be used or an alternate factor approved by the AQD District Supervisor)

The permittee shall keep the records using mass balance, or an alternative method and 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 336.1702(a))**

4. 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 336.1702(a))**
5. The permittee shall monitor and record, in a satisfactory manner, the amount of EUCURE140 LVTR used in EU-Press-03 in pounds on a monthly basis. **(R 336.1205, R 336.1225)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

1. The exhaust gases from FG-PrintPackMfg shall be released only into the general in-plant environment. **(R 336.1224, R 336.1225, 40 CFR 52.21(c) & (d))**

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: FG-Facility

DESCRIPTION: All process equipment source-wide including equipment covered by other permits, grand-fathered equipment and exempt equipment.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing/ Monitoring Method	Underlying Applicable Requirements
1. Each Individual HAP	8.9 tpy	12-month rolling time period as determined at the end of each calendar month	FG-Facility	SC VI.1, SC VI.2	R 336.1205(3)
2. Aggregate HAPs	22.4 tpy	12-month rolling time period as determined at the end of each calendar month	FG-Facility	SC VI.1, SC VI.2	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 permittee shall determine the HAP content of any material as applied and as received, using manufacturer's formulation data. Upon request of the AQD District Supervisor, the permittee shall verify the manufacturer's HAP formulation data using EPA Test Method 311. **(R 336.1205(3))**

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 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(3))**

2. The permittee shall keep the following information for FG-Facility on a calendar month basis:
 - a) Gallons or pounds of each HAP containing material used.
 - b) Where applicable, gallons or pounds of each HAP containing material reclaimed.
 - c) HAP content, in pounds per gallon or pounds per pound, of each HAP containing material used.
 - d) Individual and aggregate HAP emission calculations determining the monthly emission rate of each in tons per calendar month.
 - e) Individual and aggregate HAP emission calculations determining the annual emission rate of each in tons 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 and make them available to the Department upon request. **(R 336.1205(3))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

