

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

August 16, 2016

PERMIT TO INSTALL
362-99F

ISSUED TO
Coveris Flexibles US, Inc.

LOCATED AT
155 Brook Street
Battle Creek, Michigan

IN THE COUNTY OF
Calhoun

STATE REGISTRATION NUMBER
B7628

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 28, 2016	
DATE PERMIT TO INSTALL APPROVED: August 16, 2016	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	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 ₂ e	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_FLEXO-100	Flexographic Printing Press No. 100 with an In-Line Laminator. Stack Identification: SV_RTO-1 & SV_RTO-2.	January 15, 2002	FG_FLEXO-ROTO-PW FG_RTO-1and2 FG_FACILITY
EU_FLEXO-102	Flexographic Printing Press No. 102 with an In-line Laminator. Stack Identification: SV_RTO-1 & SV_RTO-2.	January 1, 2000	FG_FLEXO-ROTO-PW FG_RTO-1and2 FG_FACILITY
EU_FLEXO-110	Flexographic Printing Press No. 110: 10-color Wide-web Central Impression (CI) Drum Equipped with an In-line Laminator. Stack Identification: SV_RTO-1 & SV_RTO-2.	November 15, 2007	FG_FLEXO-ROTO-PW FG_RTO-1and2 FG_FACILITY
EU_FLEXO-112	Flexographic Printing Press No. 112: 10-color Central Impression (CI) Drum printing press equipped with a Corona Treater. The corona treater uses an electrical charge to treat the film and it is emitting ozone. Stack Identification: SV_RTO-1 & SV_RTO-2	November 29, 2010 / May 25, 2010	FG_FLEXO-ROTO-PW FG_RTO-1and2 FG_FACILITY
EU_ROTTO-806	Rotogravure Printing Press No 806 with In-line Laminator. Stack Identification: SV_RTO-1 & SV_RTO-2.	January 1, 1985	FG_FLEXO-ROTO-PW FG_RTO-1and2 FG_FACILITY
EU_ROTTO-808	Rotogravure Printing Press No 808 with In-line Laminator. Stack Identification: SV_RTO-1 & SV_RTO-2.	January 1, 1987	FG_FLEXO-ROTO-PW FG_RTO-1and2 FG_FACILITY
EU_SideLoad	Side (Front) Loading Renzman Parts Washer. Stack Identification: SV_RTO-1 & SV_RTO-2.	January 1, 1993	FG_FLEXO-ROTO-PW FG_RTO-1and2 FG_FACILITY
EU_TopLoad	Top Loading Renzman Parts Washer, Solvent Distillation Unit, Solvent Holding Tank. Stack Identification: SV_RTO-1 & SV_RTO-2.	January 1, 1983	FG_FLEXO-ROTO-PW FG_RTO-1and2 FG_FACILITY
EU_LAM-404	Solventless Laminator No. 404 Stack Identification: SC_LAM-404.	January 1, 1981	FG_FACILITY
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_LAM-404

DESCRIPTION: Solventless Laminator No. 404

Flexible Group ID: FGFACILITY

POLLUTION CONTROL EQUIPMENT: None

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	1.88 x 10 ⁻³ pph	Test Protocol	EU_LAM-404	GC 13	R 336.1225
2. VOC	0.01 tpy	12-month rolling time period as determined at the end of each calendar month	EU_LAM-404	SC VI.1 SC VI.2 SC VI.3	R 336.1205(3) R 336.1702(a)

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 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 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 336.1702(a))**
2. The permittee shall keep written record of the following for the EU_LAM-404 on a calendar month averaging period:
 - a. Gallons (with water) of each material (coatings, adhesives, etc.) used and reclaimed;
 - b. As received and as applied, VOC content of each material (minus water and with water);
 - c. VOC mass emission calculations determining the monthly emission rate in tons per month;
 - d. VOC mass emission calculations determining the yearly emission rate in tons per 12-month rolling time period as determined at the end of each calendar month; and
 - e. Actual hours of operations.

The records are for the purpose of compliance demonstration and shall be kept in the format approved by the Air Quality Division District Supervisor. The records shall be kept on site 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))**

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. 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, R 336.1901)**

VII. REPORTING

NA

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_LAM-404	30	23	R 336.1225, R 336.1901, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

1. Within fifteen days of issuance of this permit, the permittee shall label the EU_LAM-404 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).

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_FLEXO-ROTO-PW	Four flexographic printing lines, two rotogravure printing lines, and two Parts Wash (PW) lines. All lines are within a Permanent Total Enclosure (PTE) and controlled by two parallel Regenerative Thermal Oxidizers (RTO).	EU_FLEXO-100 EU_FLEXO-102 EU_FLEXO-110 EU_FLEXO-112 EU_ROT0-806 EU_ROT0-808 EU_SideLoad EU_TopLoad
FG_RTO-1and2	Two parallel RTOs to control eight emission units.	EU_FLEXO-100 EU_FLEXO-102 EU_FLEXO-110 EU_FLEXO-112 EU_ROT0-806 EU_ROT0-808 EU_SideLoad EU_TopLoad
FG_FACILITY	All equipment at the stationary source including equipment covered by other permits, grand-fathered equipment and exempt equipment.	NA

The following conditions apply to: FG_FLEXO-ROTO-PW

DESCRIPTION: Four flexographic printing lines, two rotogravure printing lines, and two Parts Wash (PW) lines. All lines are within a Permanent Total Enclosure (PTE) and controlled by two parallel Regenerative Thermal Oxidizers (RTO).

Emission Units: EU_FLEXO-100, EU_FLEXO-102, EU_FLEXO-110, EU_FLEXO-112, EU_ROT0-806, EU_ROT0-808, EU_SideLoad, EU_TopLoad

POLLUTION CONTROL EQUIPMENT: RTO for solvent-based inks

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	33.1 pph	Test Protocol	FG_FLEXO-ROTO-PW	GC 13	R 336.1225
2. VOC	75.0 tpy	12-month rolling time period as determined at the end of each calendar month	FG_FLEXO-ROTO-PW	SC VI.1 SC VI.3 SC VI.4 SC VI.5	R 336.1205(3) R 336.1225 R 336.1702(a) R 336.1707

II. MATERIAL LIMITS

1. Permittee shall not operate the EU_SideLoad or EU_TopLoad portions of FG_FLEXO-ROTO-PW unless all applicable provisions of R 336.1707 are met. **(R 336.1707)**
2. The overall reduction in VOC emissions from rotogravure and flexographic operations of the FG_FLEXO-ROTO-PW shall exceed all applicable provisions of R 336.1624. **(R 336.1225, R 336.1624, R 336.1702(a))**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate the FG_FLEXO-ROTO-PW, unless the pressure within the permanent total enclosure (PTE) is a minimum of 0.007 inches of water less than the adjacent area on a continuous basis. The differential pressure shall be monitored in a manner and with instrumentation acceptable to the Air Quality Division. The differential pressure monitoring instrument shall display the differential pressure as the pressure within the PTE minus the adjacent room pressure (e.g., an acceptable pressure reading is equal to or less than -0.007 inches of water). **(R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate FG_FLEXO-ROTO-PW unless the PTE is installed and operating properly. Proper operation requires that the PTE is operating at a pressure lower than all adjacent areas, so that air flows into the PTE through all natural draft openings (NDO). An NDO is defined as any opening that is not connected to a duct in which a fan or blower is installed. **(R 336.1225, R 336.1702(a), R 336.1910)**

V. TESTING/SAMPLING

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

1. If applicable, the permittee shall determine the VOC content, water content, and density of any coating, as applied and as received, 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, the permittee may determine the VOC content from manufacturer's formulation data. If the Method 24 or 24A results and the formulation values should differ, the permittee shall use the Method 24 or 24A results to determine compliance. **(R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**
2. Upon written request from the AQD District Supervisor, the permittee shall verify the capture efficiency of the PTE, by testing at owner's expense, in accordance with the Department requirements. No less than 60 days prior to testing, a complete testing plan shall be submitted to the AQD District Supervisor. This testing plan must be approved by the Department prior to testing. A complete report of the test results must be submitted to the AQD District Supervisor within 60 days following the testing. When the PTE or equipment in the PTE has been modified, testing will not be required if it is demonstrated to and approved by the AQD District Supervisor that the modification does not significantly change the equipment and does not alter the capture efficiency of the PTE. **(R 336.1205(3), R 336.1224, R 336.1225, 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. 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), R 336.1224, R 336.1225, R 336.1702(a))**
2. For FG_FLEXO-ROTO-PW, the permittee shall monitor and record the pressure differential between the PTE and the outside area on a continuous basis to verify that air is entering the PTE. If there is any new or modified equipment added to the PTE, or if the PTE is modified, the permittee shall prepare and submit a revised air pressure differential monitoring plan to the Air Quality Division, Technical Programs Unit (formerly known as Compliance Support Unit) within 90 days of the proposed change. The monitoring plan shall include a quality assurance plan stating the method proposed to calibrate/audit the monitor in order to verify the monitoring equipment has been installed and is operating properly. The plan shall be submitted and approved by the Air Quality Division prior to any change in monitoring. **(R 336.1207(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 336.1224, R 336.1225, R 336.1702(a))**
4. The permittee shall keep the following information on a monthly basis for FG_FLEXO-ROTO-PW:
 - a. Gallons (with water) of each material used and, if applicable, reclaimed.
 - b. VOC content (minus water and with water) of each MATERIAL, as received and as applied.
 - c. A demonstration of compliance with SC II.1 and II.2.
 - d. VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - e. VOC mass 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 permittee shall keep the records using mass balance or an alternate 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 336.1205, R 336.1225, R 336.1702(a), R 336.1707)**

- For FG_FLEXO-RTO-PW, the permittee shall keep records of the water pressure differential between the PTE and the adjacent area, in accordance with the differential pressure monitoring plan. 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))**

VII. REPORTING

NA

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-1	60	40	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV_RTO-2	60	40	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

- Within fifteen days of installation of an emission unit, the permittee shall label the each emission unit of FG_FLEXO-ROTO-PW 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 to: FG-RTO-1 and 2

DESCRIPTION: Two parallel RTOs to control eight emission units.

Emission Units: EU_FLEXO-100, EU_FLEXO-102, EU_FLEXO-110, EU_FLEXO-112, EU_ROTOTO-806, EU_ROTOTO-808, EU_SideLoad, EU_TopLoad

POLLUTION CONTROL EQUIPMENT: RTO for solvent-based inks

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate FG_FLEXO-ROTO-PW unless one or both thermal oxidizers are installed and operating properly. Proper operation of each thermal oxidizer includes a minimum VOC capture efficiency of 100 percent (by weight), a minimum VOC destruction efficiency of 98 percent (by weight), maintaining a minimum temperature of 1590°F, and a minimum retention time of 0.5 seconds. **(R 336.1225, R 336.1702(a), R 336.1910)**
2. The permittee shall install a continuous pressure monitoring device equipped with a visual or audible alarm in the common duct to the thermal oxidizers. **(R 336.1225, R 336.1702(a), R 336.1910)**

V. TESTING/SAMPLING

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

1. Within 60 days of achieving the maximum production rate, but not later than 180 days after the commencement of operation of any new or modified equipment in FG_FLEXO-ROTO-PW, the permittee shall verify and quantify VOC emission rates from FG_FLEXO-ROTO-PW, capture efficiency and destruction efficiency of both RTOs (RTO-1 & RTO-2), by testing at owner's expense, in accordance with Department requirements, will be required. No less than 60 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. Testing will not be required if it is demonstrated to and approved by the AQD District Supervisor that the modification does not significantly change the equipment and does not alter the capture efficiency of the PTE and destruction efficiency of the RTO (RTO-1 & RTO-2). **(R 336.1205(3), R 336.1224, R 336.1225, 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. 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), R 336.1224, R 336.1225, R 336.1702(a))**
2. The permittee shall monitor and record the temperature in each Regenerative Thermal Oxidizer at a location on a continuous basis in a manner and with instrumentation acceptable to the Air Quality Division. All records are for the purpose of compliance demonstration, 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), R 336.1901, R 336.1910)**
3. Permittee shall maintain records of both RTO temperatures for the purpose of compliance demonstration. The 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), R 336.1901, R 336.1910)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

The following conditions apply Source-Wide to: FG FACILITY

POLLUTION CONTROL EQUIPMENT: RTO for solvent borne inks

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	Less than 90 tpy	12-month rolling time period as determined at the end of each calendar month	FG_FACILITY	SC VI.1 SC VI.2 SC VI.4	R 336.1205(3)
2. Each Individual HAP	Less than 9.0 tpy	12-month rolling time period as determined at the end of each calendar month	FG_FACILITY	SC VI.1 SC VI.3 SC VI.4	R 336.1205(3)
3. Aggregate HAPs	Less than 22.0 tpy	12-month rolling time period as determined at the end of each calendar month	FG_FACILITY	SC VI.1 SC VI.3 SC VI.4	R 336.1205(3)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

1. All waste inks, coatings, cleanup solvents, adhesives, etc. (materials) shall be captured and stored in closed containers and disposed of in an acceptable manner in compliance with all applicable rules and regulations. **(R 336.1205(3), R 336.1225, 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. If applicable, 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 336.1205(3), R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, R 336.2040(5))**
2. The HAP content of any material, as received/as applied, shall be determined using manufacturer's formulation data. Upon request of the AQD District Supervisor, the manufacturer's HAP formulation data shall be verified 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. 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 336.1901)**
2. The permittee shall keep written record of the following for the FG_FACILITY on a calendar month averaging period:
 - a. Gallons (with water) of each material (inks—solvent inks & waterborne inks, coatings, adhesives, etc.) used and reclaimed;
 - b. As received, VOC content of each material (with water);
 - c. VOC mass emission calculations determining the monthly emission rate in tons per month; and
 - d. Total combined VOC mass emission calculations determining the yearly emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

The records are for the purpose of compliance demonstration and shall be kept using mass balance or an alternate method and format approved by the Air Quality Division District Supervisor. The records shall be kept on site 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))**

3. The permittee shall keep written record of the following for the FG_FACILITY on a calendar month averaging period:
 - 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 are for the purpose of compliance demonstration and shall be kept using mass balance or an alternate method and format approved by the Air Quality Division District Supervisor. The records shall be kept on site for a period of at least five years and made available to the Department upon request. **(R 336.1205(3))**

4. The applicant 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. 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, R336.1225, R 336.1702(a))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

NA

IX. OTHER REQUIREMENTS

NA

Footnotes:

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