

**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION**

October 22, 2019

PERMIT TO INSTALL
232-971

ISSUED TO
Walsworth Publishing Company, Inc.

LOCATED AT
2180 Maiden Lane
Saint Joseph, Michigan

IN THE COUNTY OF
Berrien

STATE REGISTRATION NUMBER
N1698

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. 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 5, 2019	
DATE PERMIT TO INSTALL APPROVED: October 22, 2019	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO ₂ e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H ₂ S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO _x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO ₂	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

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 Environment, Great Lakes, and Energy, 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 Rule 210 (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 Rule 219 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 Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(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 Rule 301, 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 Rule 303 (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 Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT 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 (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EUM-1000A2	Harris M-1000A2 – 10 Units, Double Web Offset Press, Two Stage Dryer Ovens, and Automatic Blanket Wash System Controlled By a Regenerative Thermal Oxidizer (RTO).	10-01-2004	FGWebFed
EUM-1000A	Harris M-1000A – Double Web Press, Double Dryer Ovens, and Automatic Blanket Wash System. Controlled By a Regenerative Thermal Oxidizer (RTO).	07-01-2000	FGWebFed
EUM-20002	Goss Sunday 2000 – Single Web Press with a built-in ECOCOOL/T105-1460 System	TBD	FGWebFed
EUM-2000	Goss Sunday 2000 – Single Web Press with a built-in ECOCOOL/T105-1460 System	05-01-2015 01-12-2016	FGWebFed
EUSheetFed-02	Heidelberg HB102SP 5/c, Sheetfed 5-Color Offset Press.	08-01-1998	FGSheetFed
EUSheetFed-05	Coater	03-01-1993	FGSheetFed
EUSheetFed-08	Heidelberg SM 102-8-PS 40", Sheetfed 8-Color Offset Press.	03-01-2015	FGSheetFed
EUInkJet-01	Sitma 1 Ink Jet Printer.	06-01-1994	FGInkJet
EUInkJet-02	Sitma 2 Ink Jet Printer	04-01-1991	FGInkJet
EUInkJet-03	Domino Ink Jet Printer	03-01-2000	FGInkJet
EUInkJet-04	Bitjet Ink Jet Printer	03-01-2015	FGInkJet
EUInkJet-05	Bitjet Ink Jet Printer	01-01-2018	FGInkJet

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 336.1291.

FLEXIBLE GROUP SPECIAL CONDITIONS

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
FGWebFed	Four (4) Webfed Heatset Offset Lithographic Printing Presses. The Harris presses (EUM-1000A2 & EUM-1000A) are controlled by a regenerative thermal oxidizer (RTO), and the Goss Sunday presses (EUM-2000 and EUM-20002) are controlled by its own built-in ECOCOOL system.	EUM-1000A2, EUM-1000A, EUM-2000, EUM-20002
FGSheetFed	Two (2) Sheetfed Offset Lithographic Printing Presses and One (1) Coater.	EUSheetFed-02, EUSheetFed-05, EUSheetFed-08
FGInkJet	Five (5) Ink Jet Printers	EUInkJet-01, EUInkJet-02, EUInkJet-03, EUInkJet-04, EUInkJet-05

FGWebFed
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Four (4) Webfed Heatset Offset Lithographic Printing Presses. The Harris presses (EUM-1000A2 & EUM-1000A) are controlled by a regenerative thermal oxidizer (RTO), and the Goss Sunday presses (EUM-2000 and EUM-20002) are controlled by its own built-in ECOCOOL system.

Emission Unit: EUM-1000A2, EUM-1000A, EUM-2000, EUM-20002

POLLUTION CONTROL EQUIPMENT

A Regenerative Thermal Oxidizer (RTO) and two ECOCOOL Systems

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOC	15.0 tpy	12-month rolling time period as determined at the end of each calendar month	FGWebFed	SC VI.3	R 336.1702(a)
2. kerosine, hydro-desulfurized (Cas No. 64742-81-0)	3.9 tpy	12-month rolling time period as determined at the end of each calendar month	FGWebFed	SC VI.4	R 336.1225(1)

II. MATERIAL LIMIT(S)

1. All printing press-related blanket and roller washes (cleaning solvents) shall have VOC composite partial vapor pressures that do not exceed 10 mmHg @ 20°C (68°F) or contain less than 30% VOC by weight. **(R 336.1702(a))**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. 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. The permittee shall not operate FG-WebFed unless a malfunction abatement plan (MAP) for an RTO and two ECOCOOL Systems unless a malfunction abatement plan (MAP) as described in Rule 911(2), is implemented and maintained. The MAP shall, at a minimum, specify the following:
 - a) A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.
 - b) An identification of the sources and air cleaning operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.

- c) A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.
- d) A description of the procedures to capture, handle and dispose of all materials to minimize the generation of fugitive emissions per SC III.1 and III.2.

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 336.1205, R 336.1225, R 336.1702(a), R 336.1910, R 336.1911)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall not operate EUM-1000A2 and EUM-1000A unless the RTO is installed, maintained and operated in a satisfactory manner. Satisfactory operation of the RTO includes a minimum VOC destruction efficiency of 95 percent (by weight), a minimum retention time of 0.5 seconds, a minimum combustion temperature of 1450°F or at the minimum temperature during the most recent control device performance test which demonstrates compliance with a minimum of 95 percent destruction efficiency, and in accordance with the MAP required in SC III.3. **(R 336.1205, R 336.1702(a), R 336.1910)**
2. The permittee shall not operate EUM-1000A2 and EUM-1000A unless the dryers are installed, maintained and operated in a satisfactory manner. Satisfactory operation requires that the dryers are operating at a pressure lower than all adjacent areas, so that air flows into the enclosure through all natural draft openings (NDOs). NDO is defined as any opening that is not connected to a duct in which a fan or blower is installed. This shall be achieved by using the 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 336.1205, R 336.1702(a), R 336.1910)**
3. The permittee shall install, calibrate, maintain and operate a temperature monitoring device in the combustion chamber of the RTO in a satisfactory manner. The monitoring device shall monitor the temperature on a continuous basis during the operation of EUM-1000A2 and EUM-1000A. **(R 336.1205, R 336.1702(a))**
4. The permittee shall not operate EUM-2000 and/or EUM-20002 unless each ECOCOOL System is installed, maintained and operated in a satisfactory manner. Satisfactory operation of each ECOCOOL System includes a minimum VOC destruction efficiency of 95 percent (by weight), a minimum retention time of 0.6 seconds, a minimum combustion temperature of 1450°F or at the minimum temperature during the most recent control device performance test which demonstrates compliance with a minimum of 95 percent destruction efficiency, and in accordance with the MAP required in SC III.3. **(R 336.1205, R 336.1702(a), R 336.1910)**
5. The permittee shall not operate each ECOCOOL System for EUM-2000 and EUM-20002 unless each system is operating at a pressure lower than all adjacent areas, so that air flows into the enclosure through all natural draft openings (NDOs). NDO is defined as any opening that is not connected to a duct in which a fan or blower is installed. This shall be achieved by using the automatic shutdown for the entire press in event of a malfunction. **(R 336.1205, R 336.1702(a), R 336.1910)**
6. The permittee shall install, calibrate, maintain and operate a temperature monitoring device in the combustion chamber of each ECOCOOL System in a satisfactory manner. The monitoring device shall monitor the temperature on a continuous basis during the operation of EUM-2000 and/or EUM-20002. **(R 336.1205, R 336.1702(a))**

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, fountain solution, *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. Upon written request from the AQD District Supervisor, the permittee shall verify the VOC destruction efficiency of the RTO for EUM-1000A2 and EUM-1000A or ECOCOOL/T105-1460 for EUM-2000, by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1702(a), R 336.1910, R 336.2001, R 336.2003, R 336.2004)**
3. Within 180 days from commencement of trial operation of EUM-20002, the permittee shall verify the VOC destruction efficiency of the ECOCOOL/T121-1020, by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in 40 CFR Part 60, Appendix A. An alternate method, or a modification to the approved EPA Method, may be specified in an AQD approved Test Protocol. No less than 60 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. **(R 336.1702(a), R 336.1910, 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, 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 monthly basis for FGWebFed:
 - a) The type of each VOC containing material used and reclaimed (heatset inks, UV inks, coatings, fountain solutions, cleaning solutions, *etc.*).
 - b) The amount (in pounds or gallons) of each VOC containing material used and reclaimed.
 - c) All applicable records to show compliance with SC II.1
 - 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 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 336.1702(a))**

4. The permittee shall keep the following information on a calendar month basis for FGWebFed:
 - a) Gallons (with water) of each kerosine, hydro-desulfurized (CAS No. 64742-81-0) containing material used.
 - b) Where applicable, gallons (with water) of each kerosine, hydro-desulfurized (CAS No. 64742-81-0) containing material reclaimed.
 - c) Each kerosine, hydro-desulfurized (CAS No. 64742-81-0) content (with water) in pounds per gallon of each material used.
 - d) Kerosine, hydro-desulfurized (CAS No. 64742-81-0) mass emission calculations determining the monthly emission rate in tons per calendar month.
 - e) Kerosine, hydro-desulfurized (CAS No. 64742-81-0) 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 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.¹ **(R 336.1225(1))**

5. The permittee shall record, in a satisfactory manner, the temperature in the combustion zone of the RTO on a continuous basis, during operation of EUM-1000A2 and EUM-1000A. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. All records shall be kept on file and made available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702)**
6. The permittee shall record, in a satisfactory manner, the temperature in the combustion zone of each ECOCOO System on a continuous basis, during operation of EUM-2000 and/or EUM-20002. Temperature data recording shall consist of measurements made at equally spaced intervals, not to exceed 15 minutes per interval. All records shall be kept on file and made available to the Department upon request. **(R 336.1205, R 336.1225, R 336.1702)**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation or modification of EUM20002 authorized by this Permit to Install, the permittee or the authorized agent pursuant to 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 the commencement of trial operation of EUM20002. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTION(S)

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 (EUM-1000A2 & EUM-1000A)	24	32	R 336.1225, 40 CFR 52.21(c) & (d)
2. SV-ECOCOO-01 (EUM-2000)	22	34	R 336.1225, 40 CFR 52.21(c) & (d)

Stack & Vent ID	Maximum Exhaust Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
3. SV-ECOCOOL-02 (EUM-20002)	22	34	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

**FGSheetFed
 FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Two (2) Sheetfed Offset Lithographic Printing Presses and One (1) Coater.

Emission Unit: EUSheetFed-02, EUSheetFed-05, EUSheetFed-08

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	24.6 tpy	12-month rolling time period as determined at the end of each calendar month	FGSheetFed	SC VI.1, SC VI.2, SC VI.3	R 336.1702(a)
2. Petroleum Naphtha (CAS No. 64742-47-8)	7.5 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 336.1225(1)

II. MATERIAL LIMIT(S)

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	FGSheetFed	SC VI.1, SC VI.2, SC VI.5	R 336.1702(a)

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. 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 PARAMETER(S)

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, fountain solution, *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))**

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, 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 monthly basis for FGSheetFed:
 - a) The type of each VOC containing material used and reclaimed (non-heatset sheetfed inks, UV inks, coatings, fountain solutions, cleaning solutions, *etc.*).
 - b) The amount (in pounds or gallons) of each VOC containing material used and reclaimed.
 - c) The VOC content of each material as received and as applied (in percent by weight or pounds per gallon).
 - d) 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)
 - 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. (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 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 336.1702(a))**

4. The permittee shall keep the following information on a monthly basis for FGSheetFed:
 - a) The type of each Petroleum Naphtha (CAS No. 64742-47-8) containing material used and reclaimed (non-heatset sheetfed inks, UV inks, coatings, fountain solutions, cleaning solutions, *etc.*).
 - b) The amount (in pounds or gallons) of each Petroleum Naphtha (CAS No. 64742-47-8) containing material used and reclaimed.
 - c) The Petroleum Naphtha (CAS No. 64742-47-8) content of each material as received and as-applied (in percent by weight or pounds per gallon).
 - d) Petroleum Naphtha (CAS No. 64742-47-8) 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)
 - e) Petroleum Naphtha (CAS No. 64742-47-8) 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 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.¹
(R 336.1225(1))

5. 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))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FGInkJet
FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Five (5) Ink Jet Printers

Emission Unit: EUInkJet-01, EUInkJet-02, EUInkJet-03, EUInkJet-04, EUInkJet-05

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing Method	Underlying Applicable Requirements
1. VOCs	0.7 tpy	12-month rolling time period as determined at the end of each calendar month	FGInkJet	SC VI.1, SC VI.2, SC VI.3	R 336.1702(a)
2. Solvent Black 27	43.8 lb/yr	12-month rolling time period as determined at the end of each calendar month	FGInkJet	SC VI.4	R 336.1225
3. Acetone	1.5 tpy	12-month rolling time period as determined at the end of each calendar month	FGInkJet	SC VI.5	R 336.1224, R 336.1225

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. 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))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

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, fountain solution, 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))**

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, 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 monthly basis for FGInkJet:
 - a) The type of each VOC containing material used and reclaimed (inks, coatings, blanket wash, etc.).
 - b) The amount (in pounds or gallons) of each VOC containing material used and reclaimed.
 - c) The VOC content of each material as received and as applied (in percent by weight or pounds per gallon).
 - d) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
 - 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 permittee shall keep the records using mass balance, or 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 336.1702(a))**

4. The permittee shall keep the following information on a monthly basis for FGInkJet:
 - a) The type of each Solvent Black 27 containing material used.
 - b) The amount (in pounds or gallons) of each Solvent Black 27 containing material used.
 - c) Solvent Black 27 mass emission calculations determining the monthly emission rate in pounds per calendar month.
 - d) Solvent Black 27 emission calculations determining the annual emission rate in pounds 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 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 336.1225)**

5. The permittee shall keep the following information on a monthly basis for FGInkJet:
 - a) The type of each acetone containing material used.
 - b) The amount (in pounds or gallons) of each acetone containing material used.
 - c) Acetone mass emission calculations determining the monthly emission rate in pounds per calendar month.
 - d) Acetone emission calculations determining the annual emission rate in pounds 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 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 336.1224, R 336.1225)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

FGFACILITY CONDITIONS

DESCRIPTION

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment and exempt equipment.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Monitoring / Testing 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.1, SC VI.2	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.1, SC VI.2	R 336.1205(3)
3. Naphthalene (CAS No. 91-20-3)	166.5 lb/yr	12-month rolling time period as determined at the end of each calendar month	FGFACILITY	SC VI.1, SC VI.3	R 336.1225(2)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

NA

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

- 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))**

- 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))**
- The permittee shall keep the following information on a monthly basis for FGFACILITY:
 - 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. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(3))**

3. The permittee shall keep the following information on a monthly basis for FGFACILITY:
- a) The type of each Naphthalene (CAS No. 91-20-3) containing material used and reclaimed.
 - b) The amount (in pounds or gallons) of each Naphthalene (CAS No. 91-20-3) containing material used and reclaimed.
 - c) The Naphthalene (CAS No. 91-20-3) content of each material as received and as applied (in percent by weight or pounds per gallon).
 - d) Naphthalene (CAS No. 91-20-3) 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)
 - e) Naphthalene (CAS No. 91-20-3) 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 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.¹
(R 336.1225(2))

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

