



Louisville Metro Air Pollution Control District
 850 Barret Avenue
 Louisville, Kentucky 40204-1745



Federally Enforceable District Origin Operating Permit (FEDOOP)

Permit No.: O-0617-15-F

Plant ID: 0617

Effective Date: xx/xx/2015

Expiration Date: xx/xx/2020

Permission is hereby given by the Louisville Metro Air Pollution Control District to operate the process(es) and equipment described herein which are located at:

Gateway Press, Incorporated
 4500 Robards Lane
 Louisville, KY 40232

The applicable procedures of District Regulation 2.17 regarding review by the U.S. EPA and public participation have been followed in the issuance of this permit. Based on review of the application on file with the District, permission is given to operate under the conditions stipulated herein. If a renewal permit is not issued prior to the expiration date, the owner or operator may continue to operate in accordance with the terms and conditions of this permit beyond the expiration date, provided that a complete renewal application is submitted to the District no earlier than twelve (12) months and no later than ninety (90) days prior to the expiration date.

Emission limitations to qualify for non-major status:

Pollutant:	VOC	HAP-T	HAP-1
Tons/year:	< 25	< 12.5	< 5

Application No.:	30129	Application Received:	02/16/2007
	13729		04/08/2010
	58226		08/07/2013
	69700		02/25/2015

Permit Writer: Elise Venard

Public Notice Date: 07/29/2015

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FEDOOP Permit Revisions/Changes

Revision No.	Permit No.	Issuance Date	Public Notice Date	Change Type	Change Scope	Description
Initial	0075-97-F	4/22/1997	3/16/1997	Initial	Entire Permit	Initial Permit Issuance
R1	0075-97-F (R1)	4/22/1997	5/6/2000	Administrative	General Conditions Pages 2-4	Minor revision to update General Conditions and permit attachments 24-96 and 25-96
R2	0075-97-F (R2)	5/12/2002	5/12/2002	Renewal	Entire Permit	Scheduled 5-year permit renewal
R3	0075-97-F (R3)	6/12/2002	11/9/2003	Administrative	Entire Permit	Revisions to incorporate construction permit 282-02-C
N/A	O-0617-F	x/x/2015	7/29/2015	Renewal	Entire Permit	permit renewal with changes to include: <ul style="list-style-type: none"> • STAR-exempt status • Change in Responsible Official • Removal of equipment 75-97-F (R3) attachment 23.85 • Removal of equipment 75-97-F (R3) attachment 290-89 • Removal of equipment 75-97-F (R3) attachment 174-93 • Removal of equipment 75-97-F (R3) attachment 24-96 • Addition of Insignificant Activity units

Construction Permit History:

Permit No.	Issue Date	Description
380-05-C	12/31/2006	Undecided make & model, heatset, offset, web press
381-05-C	12/6/2006	Undecided make & model, combustion device for 380-05-C

Permit No.	Issue Date	Description
108-09-C	4/22/2009	Mitsubishi Diamond, 6-color, sheet-fed offset press

Abbreviations and Acronyms

AP-42	- AP-42, <i>Compilation of Air Pollutant Emission Factors</i> , published by U.S.EPA
APCD	- Louisville Metro Air Pollution Control District
BAC	- Benchmark Ambient Concentration
Btu	- British thermal unit
CEMS	- Continuous Emission Monitoring System
CFR	- Code of Federal Regulations
CO	- Carbon monoxide
District	- Louisville Metro Air Pollution Control District
EA	- Environmental Acceptability
gal	- U.S. fluid gallons
GHG	- Greenhouse Gas
HAP	- Hazardous Air Pollutant
HCl	- Hydrogen chloride
Hg	- Mercury
hr	- Hour
in.	- Inches
lbs	- Pounds
l	- Liter
LMAPCD	- Louisville Metro Air Pollution Control District
mm Hg	- Millimeters of mercury column height
MM	- Million
NAICS	- North American Industry Classification System
NO _x	- Nitrogen oxides
PM	- Particulate Matter
PM ₁₀	- Particulate Matter less than 10 microns
PM _{2.5}	- Particulate Matter less than 2.5 microns
ppm	- parts per million
PSD	- Prevention of Significant Deterioration
psia	- Pounds per square inch absolute
QA	- Quality Assurance
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO ₂	- Sulfur dioxide
STAR	- Strategic Toxic Air Reduction
TAC	- Toxic Air Contaminant
UTM	- Universal Transverse Mercator
VOC	- Volatile Organic Compound
w.c.	- Water column
year	- Any period of twelve consecutive months, unless "calendar year" is specified
yr	- Year, or any 12 consecutive-month period, as determined by context

Preamble

This permit covers only the provisions of Kentucky Revised Statutes Chapter 77 Air Pollution Control, the regulations of the Louisville Metro Air Pollution Control District (District) and, where appropriate, certain federal regulations. The issuance of this permit does not exempt any owner or operator to whom it has been issued from prosecution on account of the emission or issuance of any air contaminant caused or permitted by such owner or operator in violation of any of the provisions of KRS 77 or District regulations. Any permit shall be considered invalid if timely payment of annual fees is not made. The permit contains general permit conditions and specific permit conditions. General conditions are applicable unless a more stringent requirement is specified elsewhere in the permit.

General Conditions

1. The owner or operator shall comply with all General Conditions herein and all terms and conditions in the referenced process/process equipment list.
2. All terms and conditions in this FEDOOP are enforceable by EPA, except those terms and conditions specified as District-only enforceable, and those which are not required pursuant to the Clean Air Act Amendments of 1990 (CAAA) or any of the Act's applicable requirements.
3. All application forms, reports, compliance certifications, and other relevant information submitted to the District shall be certified by a responsible official. If a change in the responsible official (RO) occurs during the term of this permit, or if an RO is added, the owner or operator shall provide written notification via *Administrative Information Form* (form AP-100A) to the District within 30 calendar days of such change or addition.
4. The owner or operator shall submit an *Annual FEDOOP Compliance Certification* (form 9440-0), signed by the responsible official, to the District, on or before April 15 of the year following the year for which the certification applies.
5. Periodic testing, instrumental monitoring, or non-instrumental monitoring, which may include record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstrating continuing compliance with the terms and conditions of this permit.
6. The owner or operator shall retain all records required by the District or any applicable requirement, including all required monitoring data and supporting information, for a period of five years from the date of the monitoring, sampling, measurement, report, or application, unless a longer time period for record retention is required by the District or an applicable requirement. Records shall be retrievable within a reasonable time and made available to the District, Kentucky Division for Air Quality, or the EPA upon request.
7. The owner or operator shall provide written notification to the District, and receive approval, prior to making any changes to existing equipment or processes that would result in emissions of any regulated pollutant in excess of the allowable emissions specified in this permit.
8. This permit may be reissued, revised, reopened, or revoked pursuant to District Regulation 2.17. Repeated violations of permit conditions are sufficient cause for revocation of this permit. The filing of a request by the owner or operator for any reissuance, revision, revocation, termination, or a notification of planned changes in equipment or processes, or anticipated noncompliance shall not alter any permit requirement.
9. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed either 10 tons per year, or such lesser quantity as the EPA has established by rule, of any one Hazardous Air Pollutant (HAP) or 25 tons

per year of all HAPs combined. Fugitive HAP emissions shall be included in this limit. HAPs are listed in Section 112(b) of the CAAA and as amended in 40 CFR 63, Subpart C.

10. Except as otherwise specified or limited herein, the owner or operator shall not allow or cause the emissions to equal or exceed 100 tons per year of any regulated pollutant, including particulate matter, PM₁₀, PM_{2.5}, sulfur dioxide, carbon monoxide, nitrogen oxides, lead, hydrogen sulfide, gaseous fluorides, total fluorides, or Volatile Organic Compounds (VOC); any pollutant subject to any standard in District Regulation 7.02; any substance listed in sections 112(r), 602(a) and 602(b) of the CAAA; or any combination of greenhouse gasses whose combined global warming potential equals or exceeds 100,000 tons CO₂-equivalent, as defined in 40 CFR 98). Fugitive emissions shall be included in these limits for source categories listed in District Regulation 2.16.
11. Unless specified elsewhere in this permit, the owner or operator shall complete required monthly record keeping within 30 days following the end of each calendar month.

12.

Unless specified elsewhere in this permit, the owner or operator shall submit annual reports demonstrating compliance with the emission limitations specified. The report shall contain monthly and consecutive 12-month totals for each pollutant that has a federally enforceable limitation on the potential to emit. All reports shall include the company name, plant ID number, and the beginning and ending date of the reporting period. The compliance reports shall clearly identify any deviation from a permit requirement or a declaration that there were no such deviations. All annual compliance reports shall include the following per Regulation 2.17, section 3.5.

- A certification statement: "Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete", and
- The signature and title of a responsible official of the company.

The report must be postmarked no later than March 1 of the year following the calendar year covered in the annual report.

13. The owner or operator shall comply with all applicable requirements of the following federally enforceable District Regulations:

Regulation	Title
1.01	General Application of Regulations and Standards
1.02	Definitions
1.03	Abbreviations and Acronyms
1.04	Performance Tests
1.05	Compliance with Emissions Standards and Maintenance Requirements
1.06	Source Self-Monitoring, Emissions Inventory Development and Reporting
1.07	Excess Emissions During Startups, Shutdowns, and Upset Conditions
1.08	Administrative Procedures

Regulation	Title
1.09	Prohibition of Air Pollution
1.10	Circumvention
1.11	Control of Open Burning
1.14	Control of Fugitive Particulate Emissions
2.01	General Application (Permit Requirements)
2.02	Air Pollution Regulation Requirements and Exemptions
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements
2.07	Public Notification for Title V, PSD, and Offset Permits; SIP Revisions; and Use of Emission Reduction Credits
2.09	Causes for Permit Modification, Revocation, or Suspension
2.10	Stack Height Considerations
2.11	Air Quality Model Usage
2.17	Federally Enforceable District Origin Operating Permits
4.01	General Provisions for Emergency Episodes
4.02	Episode Criteria
4.03	General Abatement Requirements
4.07	Episode Reporting Requirements
6.01	General Provisions
6.02	Emission Monitoring for Existing Sources
7.01	General Provisions

14. The owner or operator shall comply with all applicable requirements of the following District-only enforceable regulations:

Regulation	Title
1.12	Control of Nuisances
1.13	Control of Objectionable Odors in the Ambient Air
2.08	Fees
5.00	Definitions
5.01	General Provisions
5.02	Adoption and Incorporation by Reference of National Emission Standards for Hazardous Air Pollutants
5.14	Hazardous Air Pollutants and Source Categories
5.20	Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant
5.21	Environmental Acceptability for Toxic Air Contaminants
5.22	Procedures for Determining the Maximum Ambient Concentration of a Toxic Air Contaminant
5.23	Categories of Toxic Air Contaminants
7.02	Adoption of Federal New Source Performance Standards

15. The owner or operator shall submit emission inventory reports, as required by Regulation 1.06, if so notified by the District.
16. The owner or operator shall submit timely reports of abnormal conditions or operational changes that may cause excess emissions, as required by Regulation 1.07.
17. Applications, reports, test data, monitoring data, compliance certifications, and any other document required by this permit shall be submitted to:

*Air Pollution Control District
Room 205
850 Barret Ave
Louisville, KY 40204-1745*

Emission Unit: Plant-wide

Plant-wide Applicable Regulations:

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
2.17	Federally Enforceable District Origin Operating Permits	5.1,5.2, 5.3
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	3

Plant-wide Specific Conditions

S1. Standards (Regulation 2.17, section 5.1)

a. VOC

- i. The owner or operator shall not allow or cause the plant-wide emissions of VOC to equal or exceed 25 tons during any consecutive 12-month period.¹
²(Regulation 2.17, section 5.1)
- ii. The owner or operator shall store all VOC containing materials in closed containers when not in use. This includes materials such as inks, solvents, fountain solution, press cleaning materials, and waste materials including rags/wipes/paper used to clean press components. (Regulation 7.25, section 3) (BACT)
- iii. The owner or operator shall clean up all spills of any VOC containing materials no matter how small it is. If the spill is significant (i.e. more than one gallon), the owner or operator shall notify maintenance or professionals for assistance. (Regulation 7.25, section 3) (BACT)

S2. Monitoring and Record Keeping (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. VOC

1 On 08/12/2013, source requested the limits of the criteria pollutant VOC < 25 tons per year, total HAPs < 12.5 tons per year and largest single HAP < 5.0 tons per year to qualify as FEDOOP STAR Exempt as defined by Regulation 5.00, section 1.13.5.

2 According to District calculated PTE on 4/6/2015, Gateway Press cannot exceed either total HAP or individual HAP limits; therefore this permit will not address HAP Standards, Monitoring & Recording, or Reporting requirements.

- i. The owner or operator shall maintain monthly records of the name, quantity used, and VOC content (as applied) for each of the following raw materials: inks, fountain solution concentrate, fountain solution additive, blanket wash, roller wash, press cleaning materials, and any other VOC containing material used during each calendar month and each consecutive 12-month period.
- ii. The owner or operator shall, on a monthly basis, calculate and maintain records of the total plant-wide VOC emissions for each calendar month and each consecutive 12-month period to demonstrate ongoing compliance with the 25 tons per year plant-wide emissions limit.
- iii. VOC emissions shall be calculated according to the following methodology, unless the District approves an alternative method in writing:

Heatset Web Press

$$E_{VOC} = \frac{[(I_{voc})(I_{Ret})(C_{HI}) + (FS_{voc})(C_{FS}) + (BW_{voc})(C_{BW})](CE) + [(0.05)(I_{voc})] + [(0.30)(FS_{voc})] + [(0.60)(BW_{voc})] + [N_{voc}(R)] + Et_{voc} + [M_{VOC}(R)]}{1}$$

- E_{VOC} = lbs VOC Emissions
- I_{voc} = lbs of heatset ink used X weight % VOC in heat-set ink.
- I_{Ret} = 0.80 (1-Ink oil retention factor of 0.20 for heatset inks)
- C_{HI} = 0.95 (Capture Efficiency for heatset Ink)
- FS_{voc} = Qty of fountain sol'n Used (gal) X VOC content of fountain sol'n (lbs/gal)
 - solution reservoir temperature shall be maintained at or below 60°F
- C_{FS} = 0.70 (Capture Efficiency for fountain solution using alcohol substitutes)
- BW_{voc} = Qty of blanket wash used (gallons) X VOC content of blanket wash (lbs/gal)
 - vapor pressure < 10mm Hg at 68°F
- C_{BW} = 0.40 (Capture Efficiency for Blanket Wash)
- CE = Control Efficiency (if applicable) - For Catalytic Oxidizer (95%), the RTO 98%
- N_{voc} = Qty of naphtha used (gallons) X VOC content (lbs/gal)
- Et_{voc} = Qty of etch used (gallons) X VOC content (lbs/gal)
- M_{VOC} = Quantity of mineral spirits (gal) X VOC content (lbs/gal)
- R = 1.00 or 0.50 (Fraction of cleanup solvent unrecovered)
 - vapor pressure < 10mm Hg at 68°F

Sheet-fed Press

$$E_{VOC} = (I_{voc})(I_{Ret}) + FS_{voc} + BW_{voc} + N_{voc}(R) + M_{VOC}(R) + Et_{voc}$$

- E_{VOC} = lbs VOC Emissions
- I_{voc} = lbs of sheet-fed ink used X weight % VOC in sheet-fed ink (0.18 maximum)
- I_{Ret} = 0.05 (1 - Ink oil retention factor of 0.95 for sheet-fed inks)
- FS_{voc} = Qty of fountain sol'n Used (gal) x VOC content of fountain sol'n (lbs/gal)
 - solution reservoir temperature shall be maintained at or below 60°F
- BW_{voc} = Qty of blanket wash used (gallons) x VOC content of blanket wash (lbs/gal)
 - vapor pressure < 10mm Hg at 68°F
- N_{voc} = Qty of naphtha used (gallons) x VOC content (lbs/gal)
- M_{VOC} = Quantity of mineral spirits (gal) X VOC content (lbs/gal)
- Et_{voc} = Qty of etch used (gallons) x VOC content (lbs/gal)

- R = 1.00 or 0.50 (Fraction of cleanup solvent unrecovered)
- vapor pressure < 10mm Hg at 68°F
- iv. The owner or operator shall maintain daily records of the results of the temperature measurements for each fountain solution reservoir.
- 1) The owner or operator shall use a thermometer or other temperature detection device capable of reading to within 2.0°F to measure and record the temperature of each fountain solution reservoir at least once per day for each operating day.
- v. The owner or operator shall maintain a copy of the Material Safety Data Sheet (MSDS) for each VOC-containing material used at this plant.
- 1) The owner or operator shall maintain records of the MSDS for VOC containing materials used to manually clean press components if an R-value of 0.50 is used in the emission calculations.
- vi. The owner or operator shall maintain records of any corrective action taken and preventive measures implemented when a deviation of any permit requirement occurs.

S3. Reporting (Regulation 2.17, section 3.5 and 5.2)

The owner or operator shall submit the following information in the annual compliance report:

a. VOC

Annual reports shall include the following information:

- i. The total plant-wide calendar month VOC emissions and the total plant-wide consecutive 12-month VOC emission for each month in the reporting period.
- ii. Identification and a brief explanation of any deviation from a permit term or condition, including periods of excess emissions or recording gaps.
- iii. A description of any corrective action taken including measures taken to minimize the extent and duration of the excess emissions. A negative declaration if no deviations have occurred.

Comments/Explanations for U1: Plant-wide

The following table summarizes the compliance monitoring methods to assure ongoing compliance with District regulations and the terms and conditions of this permit.

Pollutant	Monitoring	Record Keeping	Frequency
VOC	Raw material usage	Record the quantity of each VOC containing material used during each calendar month	Monthly
	Emissions	Record the calendar month and consecutive 12-month VOC emissions	Monthly
	Raw material VOC content	Maintain a copy of the MSDS for each VOC containing material used	Continuous
	Fountain Solution	Records of the FS temperature	Daily
	Blanket Wash	Records of the VOC content as applied	As required
	Production rate	Record the run-time, make-ready, and total manned-hours	Monthly
VOC/ HAP	Control device performance	Established performance indicator required by permit	Daily
	Bypass Events	As required	As required

Emission Unit U1: Sheet-Fed Pressroom**U1 Applicable Regulations:**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
2.17	Federally Enforceable District Origin Operating Permits	3.5, 5.1, 5.2
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	3

U1 Equipment:

Emission Point	Description	Applicable Regulation	Control ID	Stack ID	Installation Date
HEID-2	Heidelberg model 102 ZP, 2-color, sheet-fed, offset press rated at 10,000 sheets / hour, printing area of 1120 in ²	2.17, 7.25	N/A	N/A	3/1982
MIT-8C	Mitsubishi model Diamond 3000R, 8-color, sheetfed offset press rated at 13,000 sheets / hour, printing area of 1120 in ²		N/A	S-2 (vent)	6/2002
MIT-6C	Mitsubishi Diamond Series, 6-color, sheet-fed offset, press with coating unit rated at 16,000 sheets / hour, printing area of 1120 in ²		N/A	N/A	4/2009

U1 Control Devices:

There are no control devices associated with this emission unit.

U1 Specific Conditions

S1. Standards (Regulation 2.17, section 5.1)

a. VOC

- i. The owner or operator shall not allow or cause the emissions of VOC to exceed 2.5 tons during any consecutive 12-month period from the Heidelberg ‘102 ZP’ 2-color sheet-fed press. (Permit 75-97-F (R3))
- ii. The owner or operator shall not allow or cause the emissions of VOC to exceed 7.0 tons during any consecutive 12-month period from the Mitsubishi ‘Diamond 3000R’ 8-color sheet-fed press (MIT-8C).³ (Permit 282-02-C)
 - 1) The District has determined that the use of low VOC inks (10% by weight), refrigerated alcohol substitutes in the fountain solution, and the automatic blanket washer system represents Best Available Control Technology (BACT) for the Mitsubishi Diamond 3000R 8-color sheet-fed press installed in 2002. (Permit 282-02-C)(Regulation 7.25))
- iii. For the Mitsubishi 6-color sheet-fed printing press (MIT-6C), the owner or operator shall not allow or cause the VOC emissions to exceed 5.5 tons per year. (BACT)⁴ (Permit 108-09-C)
 - 1) The owner or operator shall comply with the VOC emission standards listed in the following Table. The District has determined that the following VOC requirements represent the Best Available Control Technology (BACT) for the MIT-6C printing press.

Raw Material	BACT Limit
Conventional Inks	18% by weight VOC
Specialty Inks (including, but are not limited to, metallic, magnetic, fluorescent, and iridescent inks)	25% by weight VOC 10% of total ink usage
Fountain Solution	5% by weight VOC as applied;

³ The District has determined that the use of low VOC inks (18% by weight), refrigerated alcohol substitutes in the fountain solution, and the automatic blanket washer system represents the Best Available Control Technology (BACT) for the Mitsubishi Diamond 3000R (MIT-8C) sheet-fed press installed in 2002.

⁴ The District has determined that the use of raw materials that comply with the VOC emission standard stated for unit MIT6C with an annual VOC emission limit of 5.5 tons represents BACT level of control for the Mitsubishi 6-color offset lithography sheet-fed press.

Raw Material	BACT Limit
	8.5% by weight if Chilled Fountain Solution at 60°F max; Vinyl or Plastic Sheets: 10% by weight as applied
Blanket Wash	70% by weight VOC as applied or vapor pressure ≤ 10 mm Hg at 68°F
Roller Wash	70% by weight VOC as applied or vapor pressure ≤ 10 mm Hg at 68°F
Overprint or Water-based Coatings	1.0 lb. VOC/gallon as applied

(Regulation 7.25, section 3) (BACT))

- iv. See Emission Unit Plant-wide.

S2. Monitoring and Record Keeping (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. VOC

- i. The owner or operator shall maintain monthly records, including calculations that show the calendar month and consecutive 12-month total VOC emissions from the Heidelberg 2-color (HEID-2) printing press.
- ii. The owner or operator shall maintain monthly records, including calculations that show the calendar month and consecutive 12-month total VOC emissions from the Mitsubishi Diamond 3000R (MIT-8C) printing press.
- iii. The owner or operator shall maintain monthly records, including calculations that show the calendar month and consecutive 12-month total VOC emissions from the Mitsubishi 6-color (MIT-6C) printing press.
- iv. See Emission Unit Plant-wide.

S3. Reporting (Regulation 2.17, section 5.2)

a. VOC

Annual reports shall include the following information:

- i. For the Heidelberg 2-color press (HEID-2), the owner or operator shall report the total calendar month VOC emissions for each calendar month and consecutive 12-month period .

- ii. For the Mitsubishi Diamond 3000R press (MIT-8C), the owner or operator shall report the total calendar month VOC emissions for each calendar month and consecutive 12-month period.
- iii. For the Mitsubishi 6-color press (MIT-6C), the owner or operator shall report the total calendar month VOC emissions for each calendar month and consecutive 12-month period.
- iv. See Emission Unit Plant-wide.

Emission Unit U2: Web Pressroom**U2 Applicable Regulations:**

FEDERALLY ENFORCEABLE REGULATIONS		
Regulation	Title	Applicable Sections
2.17	Federally Enforceable District Origin Operating Permits	5.1, 5.2, 5.3
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	3
6.43	Volatile Organic Compound Emission Reduction Requirements	14

U2 Equipment

Emission Point	Description	Applicable Regulation	Control ID	Stack ID	Installation Date
M-300	Harris Graphics, 4-color, heat-set web offset press with automatic press wash rated at 1200 feet/min, printing area of 819 in ²	2.17, 6.43, 7.25	N/A	S-4 (stack)	6/1983
Rotoman	Man Roland 'Rotoman', 8-color, heat-set web offset press with automatic blanket wash, rated at 79,140 sheet/hour, printing area of 864.5 in ²	2.17, 7.25	TNV Oxidizer	S-7 (stack)	6/2007

U2 Control Devices:

Control ID	Description	Control Efficiency	Performance Indicator	Stack ID
TNV Oxidizer	MEGTEC Dual-Dry Thermal Recuperative Oxidizer fueled by natural gas rated at 2.25 MMBtu/hr.	98%	1400°F	S-7 (stack)

U2 Specific Conditions

S1. Standards (Regulation 2.17, section 5.1)

a. VOC

- i. The owner or operator shall not allow or cause the emissions of VOC to exceed 25 tons during any consecutive 12-month period from the Harris Graphics M-300 heat-set web press.⁵ (Regulation 7.25, section 3.1)(Permit 75-97-F (R3))
 - 1) The owner or operator is required to equip the M-300 press with automatic blanket washers. The blanket wash solvent used on these presses shall contain no more than 2.2 pounds of VOC per gallon, less water, as applied. (Regulation 6.43, section 14)
- ii. The owner or operator shall not allow or cause the emissions of VOC to exceed 17.0 tons per year from the Rotoman heat-set web press. (Regulation 7.25, section 3.1)(BACT)⁶(Permit 380-05-C)
 - 1) The press shall be equipped with automatic blanket washers. The blanket washer solvent used on this press shall contain no more than 2.20 pounds of VOC per gallon, less water, as applied. (BACT) (Permit 380-05-C)
 - 2) The owner or operator shall operate and maintain the control device (TNV Oxidizer) at all times the Man Roland (Rotoman) heat-set web is in operation. (Permit 381-05-C)
 - 3) The thermal oxidizer (TNV Oxidizer) shall achieve a minimum destruction efficiency of 98%. (Permit 381-05-C)
 - 4) Upon initial startup, the combustion chamber temperature shall be maintained at 1400°F or greater at all times the heat-set web press is in operation. (Permit 381-05-C)
 - 5) A temperature monitoring device shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs. (Permit 381-05-C)
- iii. See Emission Unit Plant-wide.

⁵ The M-300 heat-set web press operates uncontrolled and is subject to District regulation 7.25 for new sources emitting volatile organic compounds. The press was installed in 1983; therefore, the press is allowed to emit 25 tons per year of VOC pursuant to Regulation 7.25, section 3.2.⁵ (Permit 75-97-F (R3) Statement of Basis)

⁶ The potential uncontrolled VOC emissions from this press are 17 tons per year. The District has determined that the thermal oxidizer (TNV Oxidizer) used to control VOC and HAP emissions from this press represents BACT

S2. Monitoring and Record Keeping (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. VOC

- i. For each batch of blanket wash, roller wash, or other cleaning solution not prepared with automatic equipment, the VOC content of the cleaning solution (as applied) shall be determined by calculation. The calculation shall be kept in a batch log. The owner or operator shall document any additions of VOC or deviation from the standard cleaning solution makeup including the date and time of occurrence.
- ii. The owner or operator of an offset lithography printing press using automatic cleaning equipment (e.g., blanket washers) that mixes the cleaning solution at the point of application and who must demonstrate the cleaning solution (as applied) complies with permit standards shall:
 - 1) Operate, maintain, and calibrate the automatic feed equipment to regulate the volume of each cleaning solvent and water (or other non-VOC), as mixed, and:
 - 2) Preset the automatic feed equipment so that the consumption rates of the cleaning solvents and water (or other non-VOC) is as applied.
- iii. The owner or operator of the Harris Graphics 4-color press (M-300) shall maintain monthly records including calculations that show the calendar month and consecutive 12-month VOC emissions
- iv. For the Harris Graphics M-300, the owner or operator shall maintain the following records for the blanket wash: (Regulation 6.43, section 14.4.3)
 - 1) The name of each blanket wash used;
 - 2) Monthly usage;
 - 3) The monthly VOC content as applied; and
 - 4) Calculate the monthly VOC emissions from the blanket wash for the press
- v. The owner or operator of the Man Roland Rotoman shall maintain monthly records including calculations that show the calendar month and consecutive 12-month VOC emissions .
- vi. For the Man Roland Rotoman the owner or operator shall maintain the following records for the blanket:

- 1) The name of each blanket wash used;
 - 2) Monthly usage;
 - 3) VOC content as applied; and
 - 4) VOC emissions from the blanket wash for the press
- vii. The owner or operator shall comply with the following requirements to reasonably assure ongoing compliance with the 98% VOC destruction efficiency required in this permit
- 1) The owner or operator shall operate and maintain the Thermal Recuperative Oxidizer (TNV Oxidizer) at all times the Rotoman press is in operation.
 - 2) The owner or operator shall operate and maintain a monitoring device that measures the combustion chamber temperature in Thermal Oxidizer.
 - 3) The owner or operator shall operate and maintain an electrical interlock between the web press and the control device that will automatically shut down the heat-set web press if the minimum 1400°F temperature is not achieved.
 - 4) The owner or operator shall maintain daily records of the combustion chamber temperature readings as required.
 - 5) Maintain a maintenance log for the control device and monitoring equipment that includes all maintenance performed, including dates and duration of any control device downtime or bypasses.
 - 6) The owner or operator shall maintain records that identify any periods when the heat-set web press (Rotoman) is in operation while the control device (TNV Oxidizer) was offline. The records shall include the date, the duration of time including the start and stop time that the control device was bypassed, reason for bypassing the control device, and the total VOC and HAP emissions during each bypass event.
 - 7) The regenerative oxidizer VOC removal efficiency used in calculations shall be considered to be zero percent (0%) during periods of time when the oxidizer combustion chamber temperature is less than 1400°F.⁷
- viii. See Emission Unit Plant-wide.

S3. Reporting (Regulation 2.17, section 5.2)

a. VOC

Annual reports shall include the following information:

⁷ Combustion temperature minimum as verified by stack testing to achieve 98% destruction efficiency on 11/15/2007.

- i. The calendar month and consecutive 12-month VOC emissions from the M-300 press for each month in the reporting period.
 - 1) If there were no excursions during a reporting period, the annual compliance report must include a statement that there were no periods of excursions during the reporting period.
- ii. As per Regulation 6.43, section 14 the owner or operator shall report any exceedance of the 2.2 lb./gal VOC as applied, or a negative declaration if no exceedance.
- iii. The calendar month and consecutive 12-month VOC emissions from the Man Roland Rotoman press for each month in the reporting period.
 - 1) If there were no excursions during a reporting period, the annual compliance report must include a statement that there were no periods of excursions during the reporting period.
- iv. The compliance reports shall clearly identify any deviation from an oxidizer permit requirement including:
 - 1) A summary report identifying any periods of bypassing the control device (TNV Oxidizer) while the heat-set web press (Rotoman) was in operation.
 - 2) Identification of any periods when the temperature requirements were not met while the heat-set web press (Rotoman) was in operation.
 - 3) The permit deviation report shall include
 - (a) Identification of the control device and emission point
 - (b) The date of the excursion
 - (c) The observed combustion chamber temperature
 - (d) The corrective action taken to minimize the extent and duration of the excursion
 - (e) Measures implemented to prevent reoccurrence of the situation that resulted in operating below the minimum chamber temperature
 - 4) If there were no excursions during a reporting period, the annual compliance report must include a statement that there were no periods of excursions during the reporting period.
- v. See Emission Unit Plant-wide.

S4. Testing (Regulation 2.17, section 5.2)**a. VOC**

Plant-wide the owner or operator shall retest all control devices within ten (10) years since the most recent District accepted performance test or within 180 days of achieving normal operation if no previous test has been performed. For equipment which has been tested but not within ten years prior to the effective date of this permit the Company may submit within 90 days of the effective date of this permit, contingent on approval by the District, a schedule which shall at a minimum propose testing for all affected equipment within this permit cycle. Thereafter the Company shall retest each affected device at least once every 10 years. Devices of adequately similar design and filter media may be represented by a common performance test contingent upon review and approval by the District of the testing protocol. In lieu of the control efficiency testing, unless required by a Federal Regulation, the owner or operator may submit a signature guarantee from the control device manufacture stating the control device efficiency.

The owner or operator shall use the most recent District accepted performance test results to demonstrate compliance with the emission limits and in the annual emission inventory reporting.

- i. The owner or operator shall perform an EPA Reference Method 18, 25, or 25A, as appropriate, performance test on the inlet and outlet of the control device or emission point. The test shall be performed at 90% or higher of maximum capacity, or allowable/permitted capacity, or at a level of capacity which results in the greatest emissions and is representative of the operations. Failure to perform the test, at maximum capacity, allowable/permitted capacity, or at a level of capacity which resulted in the greatest emissions, may necessitate a re-test or necessitate a revision of the allowable/permitted capacity of the process equipment depending upon the difference between the testing results and the limit.
- ii. The owner or operator shall perform a capture efficiency test using EPA guidelines. In lieu of performing a capture efficiency test, the owner or operator may submit a reasonable estimate of capture efficiency with thorough justification subject to approval by the District.
- iii. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency. and capture efficiency. They shall include the EPA test methods that will be used for VOC compliance testing, the process operating parameters that will be monitored during the performance test, and the control device performance indicators (e.g. pressure drop, minimum combustion chamber temperature) that will be monitored during the performance test. The compliance test plans shall be furnished to the District at least 30 days prior to the actual date of the performance test. Attached to the permit is a Protocol Checklist for a Performance Test with the information to be submitted in the protocol.

- iv. The owner or operator shall be responsible for obtaining and analyzing audit samples when the EPA Reference Method is used to analyze samples to demonstrate compliance with the source's emission regulation. The audit samples shall be available for verification by the District during the onsite testing. (See Comments/Explanations)
- v. The owner or operator shall provide the District at least 10 days prior notice of any performance test to afford the District the opportunity to have an observer present.
- vi. The owner or operator shall furnish the District with a written report of the results of the performance test within 60 days following the actual date of completion of the performance test.
- vii. The owner or operator shall provide written notification to the District of the actual date of achieving normal operation. The written notification shall be postmarked within 15 days after achieving normal operation.

Comments/Explanations

Per an EPA rule change ("Restructuring of the Stationary Source Audit Program." Federal Register 75:176 (September 13, 2010) pp 55636-55657), sources became responsible for obtaining the audit samples directly from accredited audit sample suppliers, not the regulatory agencies.

Insignificant Activities

Equipment	Quan.	PTE (tpy)	Regulation
Cold Metal Parts Washer	1	0.440	6.18
Printing Platemaker	1	0.056	7.25
Gluer/folder	1	1.500	7.25

- 1) Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.
- 2) Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.
- 3) The owner or operator shall annually submit an updated list of *Insignificant Activities* (form AP-100P) that occurred during the preceding year, with the compliance certification due April 15th.
- 4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
- 5) The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.
- 6) The District has determined that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed in this permit, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

IA-1 Equipment: Miscellaneous VOC-Emitting Equipment

Emission Point	Equipment	Quantity	PTE (tpy)	Applicable Regulations
IA-1a	Printing Platemaker	1	0.056 VOC	7.25
IA-1b	Gluer/folder	1	1.5 VOC	

IA-1 Specific Conditions**S1. Standards (Regulation 2.17, section 5.2)****a. VOC**

- i. The owner or operator shall not allow or cause gluing or platemaking units VOC emissions, including all coatings, additives, catalysts, solvents, thinners, and cleaners from all affected facilities subject to Regulation 7.25 to equal or exceed 5 tons during any 12 consecutive month period, unless a BACT is submitted and approved by the District. (Regulation 7.25, section 2.1 and 3.1)
- ii. See Emission Unit Plant-wide.

S2. Monitoring and Record Keeping (Regulation 2.17, section 5.2)

Records shall be readily retrievable and shall be maintained for five (5) years prior to disposal.

a. VOC

- i. The owner or operator shall, monthly, record the total amount used in gallons of each coating, solvent, cleaner, etc. and calculate the VOC emissions for each calendar month and each consecutive 12-month period.⁸ If the company chooses to add the annual PTE emissions to the plant wide VOC emissions then monthly calculations will not be required for the hot melt glue and plate making material.
- ii. See Emission Unit Plant-wide.

S3. Reporting (Regulation 2.17, section 5.2)**a. VOC**

See Emission Unit Plant-wide.

⁸ The emissions from the hot melt glue and plate making material must be included in the plant wide VOC emissions.

IA-2 Equipment: Parts Washer

Emission Point	Equipment	Quantity	PTE (tpy)	Applicable Regulations
IA-2	Cold Metal Parts Washer without a secondary reservoir	1	0.440	6.18

IA-2 Specific Conditions**S1. Standards** (Regulation 2.17, section 5.2)**a. VOC**

- i. For cold solvent cleaners (parts washers) the owner or operator shall install, maintain, and operate the control equipment as follows: (Regulation 6.18, section 4)
 - 1) The cold cleaner shall be equipped with a tightly fitting cover that is free of cracks, holes, or other defects. If the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with 1 hand. (Regulation 6.18, section 4.1.1)
 - 2) The cold cleaner shall be equipped with a drainage facility that is designed so that the solvent that drains off parts removed from the cleaner will return to the cold cleaner. The drainage facility may be external if the District determines that an internal type cannot fit into the cleaning system. (Regulation 6.18, section 4.1.2)
 - 3) A permanent, conspicuous label summarizing the operating requirements specified in IA-2 Specific Condition S1.b. shall be installed on or near the cold cleaner. (Regulation 6.18, section 4.1.3)
 - 4) If used, the solvent spray shall be a fluid stream, not a fine, atomized, or shower type spray, at a pressure that does not cause excessive splashing. Flushing of parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. Solvent flow shall be directed downward to avoid turbulence at the air-solvent interface and to prevent solvent from splashing outside of the cold cleaner. (Regulation 6.18, section 4.1.4)
 - 5) Work area fans shall be located and positioned so that they do not blow across the opening of the cold cleaner. (Regulation 6.18, section 4.1.6)
 - 6) The solvent-containing portion of the cold cleaner shall be free of all liquid leaks. Auxiliary cold cleaner equipment such as pumps, water separators, steam traps, or distillation units shall not have

any visible liquid leaks, visible tears, or cracks. (Regulation 6.18, section 4.1.8)

- ii. For cold solvent cleaners (parts washers) the owner or operator shall observe at all times the following operating requirements: (Regulation 6.18, section 4.2)
 - 1) Waste solvent shall neither be disposed of nor transferred to another party in a manner such that more than 20% by weight of the waste solvent can evaporate. Waste solvent shall be stored only in a covered container. A covered container may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container. (Regulation 6.18, section 4.2.1)
 - 2) The solvent level in the cold cleaner shall not exceed the fill line. (Regulation 6.18, section 4.2.2)
 - 3) The cold cleaner cover shall be closed whenever a part is not being handled in the cold cleaner. (Regulation 6.18, section 4.2.3)
 - 4) Parts to be cleaned shall be racked or placed into the cold cleaner in a manner that will minimize drag-out losses. (Regulation 6.18, section 4.2.4)
 - 5) Cleaned parts shall be drained for at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping, or rotating, the parts shall be positioned so that the solvent drains directly back to the cold cleaner. (Regulation 6.18, section 4.2.5)
 - 6) A spill during solvent transfer shall be cleaned immediately, and the wipe rags or other sorbent material shall be immediately stored in a covered container for disposal or recycling, unless enclosed storage of these items is not allowed by fire protection authorities. (Regulation 6.18, section 4.2.6)
 - 7) Sponges, fabric, wood, leather, paper products, and other absorbent material shall not be cleaned in a cold cleaner. (Regulation 6.18, section 4.2.7)
- iii. The owner or operator shall not operate a cold cleaner using a solvent with a vapor pressure that exceeds 1.0 mm Hg (0.019 psi) measured at 20°C (68°F). (Regulation 6.18, section 4.3.2)

S2. Monitoring and Record Keeping (Regulation 2.17, section 5.2)

The owner or operator shall maintain the following records for a minimum of 5 years and make the records readily available to the District upon request.

a. **VOC**

For cold solvent cleaners (parts washers) the owner or operator shall maintain records that include the following for each purchase: (Regulation 6.18, section 4.4.2)

- i. The name and address of the solvent supplier;
- ii. The date of the purchase;
- iii. The type of the solvent; and
- iv. The vapor pressure of the solvent measured in mm Hg at 20°C (68°F).

S3. **Reporting** (Regulation 2.17, section 5.2)

a. **VOC**

There are no compliance reporting requirements for this equipment.

Source-Wide Activities Not Otherwise Regulated

Equipment	Quan.	PTE (tpy)	Regulation Basis
Maintenance Brazing, soldering, or welding equipment	2	Trivial	EPA White Papers

Idled Control Devices:

The owner or operator must inform the District prior to reinstating either of these idled units.

Control ID	Description	Control Efficiency	Performance Indicator	Stack ID
Tec-4000	TEC 'HXC4000' Catalytic Oxidizer rated at 4000 scfm / 1.5 MM BTU/hour	95%	650°F	S-6 (stack)
Quantum 3000	TEC Quantum 3000 Catalytic Oxidizer rated at 3000 scfm	95%	650°F	S-5 (stack)

Fee Comment

On May 15, 2013, the Board approved revisions to Regulation 2.08, which implemented a new fee structure. As a result, Gateway Press will be required to pay the annual operating fee.

Attachment A - Protocol Checklist for a Performance Test

A completed protocol should include the following information:

- 1. Facility name, location, and ID #;
- 2. Responsible Official and environmental contact names;
- 3. Permit numbers that are requiring the test to be conducted;
- 4. Test methods to be used (i.e. EPA Method 1, 2, 3, 4, and 5);
- 5. Alternative test methods or description of modifications to the test methods to be used;
- 6. Purpose of the test including equipment and pollutant to be tested; the purpose may be described in the permit that requires the test to be conducted or may be to show compliance with a federal regulation or emission standard;
- 7. Tentative test dates (These may change but the District will need final notice at least 10 days in advance of the actual test dates in order to arrange for observation.);
- 8. Maximum rated production capacity of the system;
- 9. Production-rate goal planned during the performance test for demonstration of compliance (if appropriate, based on limits);
- 10. Method to be used for determining rate of production during the performance test;
- 11. Method to be used for determining rate of production during subsequent operations of the process equipment to demonstrate compliance;
- 12. Description of normal operation cycles;
- 13. Discussion of operating conditions that tend to cause worse case emissions; it is especially important to clarify this if worst case emissions do not come from the maximum production rate;
- 14. Process flow diagram;
- 15. The type and manufacturer of the control equipment, if any;
- 16. The control equipment (baghouse, scrubber, condenser, etc.) parameter to be monitored and recorded during the performance test. Note that this data will be used to ensure representative operation during subsequent operations. These parameters can include pressure drops, flow rates, pH, and temperature. The values achieved during the test may be required during subsequent operations to describe what pressure drops, etcetera, are indicative of good operating performance; and
- 17. How quality assurance and accuracy of the data will be maintained, including;
 - Sample identification and chain-of-custody procedures
 - If audit samples are required for this test method, audit sample provider and number of audit samples to be used
- 18. Pipe, duct, stack, or flue diameter to be tested;
- 19. Distances from the testing sample ports to the nearest upstream and downstream flow disturbances such as bends, valves, constrictions, expansions, and exit points for outlet and additionally for inlet;
- 20. Determine number of traverse points to be tested for outlet and additionally for inlet if required using Appendix A-1 to 40 CFR Part 60;
 - Method 1 if stack diameter is >12"
 - Method 1a if stack diameter is greater than or equal to 4" and less than 12"
 - Alternate method of determination for <4"
 - If a sample location at least two stack or duct diameters downstream and half a diameter upstream from any flow disturbance is not available then an alternative procedure is available for determining the acceptability of a measurement location. This procedure described in Method 1, Section 11.5 allows for the determination of gas flow angles at the sampling points and comparison of the measured results with acceptability criteria.
- 21. The Stack Test Review fee shall be submitted with each stack test protocol.