



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



**Federally Enforceable District Origin Operating Permit (FEDOOP)**

Permit No.: O-1582-15-F

Plant ID: 1582

Effective Date: 3/24/2014

Expiration Date: 3/31/2019

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:

Print Fulfillment Services LLC  
 2929 Magazine St.  
 Louisville, KY 40211

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  
 Tons/year: 25

Application No.:	23575	Application Received:	8/30/2007
	68406		12/11/2014
	70931		4/24/2015
	71915		5/29/2015

Permit Writer: Randy Schoenbaechler

Date of Public Notice: 2/14/2014; 7/29/2015

{Manager1}  
 Air Pollution Control Officer  
 {date1}

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FEDOOP Permit Revisions/Changes

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
Initial	27871-14-F	3/24/2014	2/14/2014	Initial	Entire Permit	Initial FEDOOP Issuance
N/A	O-1582-15-F	Xx/xx/xxxx	7/29/2015	Significant	Entire Permit	<p>VOC &lt; 25 tn/yr to be FEDOOP STAR Exempt</p> <p>Removed TAC requirements</p> <p>Deleted non-applicable Permit Shield, Off-Permit Document, and Alternative Operating Scenario references</p> <p>Removed two printers:                      One (1) Ko Tai UV screen coater, model WPT1020, and                      One (1) four color Fujifilm FJ-1C1 digital inkjet printer with a Fujifilm Jpress 7200 IR dryer</p> <p>Addition the following:                      New (E4) One (1) FMA roll coater                      New (E13) One (1) four color Fuji 720S (JP720F) with IR dryer                      New (E14, and E15) Two (2) four color Hewlett Packard HP 10000</p>

### Abbreviations and Acronyms

AP-42	- AP-42, <i>Compilation of Air Pollutant Emission Factors, published by U.S.EPA</i>
APCD	- Louisville Metro Air Pollution Control District
BAC	- Benchmark Ambient Concentration
BACT	- Best Available Control Technology
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
mmHg	- Millimeters of mercury column height
MM	- Million
NAICS	- North American Industry Classification System
NO <sub>x</sub>	- Nitrogen oxides
PM	- Particulate Matter
PM <sub>10</sub>	- Particulate Matter less than 10 microns
PM <sub>2.5</sub>	- 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
RACT	- Reasonably Available Control Technology
SIC	- Standard Industrial Classification
SIP	- State Implementation Plan
SO <sub>2</sub>	- 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 (Form AP-100A) to the District within 30 calendar days of such change or addition.
4. The owner or operator shall submit an annual compliance certification, signed by the responsible official, to the District, on or before April 15 of the year following the year for which the certification applies. This certification shall include completion of District Form 9440-O.
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, PM<sub>10</sub>, PM<sub>2.5</sub>, 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 CO<sub>2</sub>-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 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:

<b>Regulation</b>	<b>Title</b>
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
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

<b>Regulation</b>	<b>Title</b>
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:

<b>Regulation</b>	<b>Title</b>
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 Specific Conditions**

**S1. Standards** (Regulation 2.17, section 5.1)

**a. VOC**

- i. The owner or operator shall not allow or cause total *plant-wide* VOC emissions to exceed 25 tons during any consecutive 12-month period. (Regulation 2.17, section 5.1)<sup>1</sup>

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

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

**a. VOC**

- i. The owner or operator shall, monthly, maintain records of the name, quantity used, and VOC content of each VOC containing material used during each calendar month and consecutive 12-month period.
- ii. The owner or operator shall, monthly, maintain records, including calculations, which show the total VOC emissions during each consecutive 12-month period in order to demonstrate ongoing compliance with the VOC emission limit.
- iii. The owner or operator shall maintain a copy of the material safety data sheet (MSDS) for each VOC containing material used at this plant.

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

The owner or operator shall submit annual compliance reports that include the information in this section. 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. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.17, section 3.5.

- “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete.”
- Signature and title of the responsible official of the company.

The Annual Compliance Report is due on or before the following date of each calendar year:

Reporting Period	Report Due Date
January 1 <sup>st</sup> through December 31 <sup>st</sup>	March 1 <sup>st</sup>

The Annual Compliance Certification is due on or before the following date of each calendar year:

<sup>1</sup> Source requested FEDOOP STAR Exempt limits on December 11, 2014.

Reporting Period  
January 1<sup>st</sup> through December 31<sup>st</sup>

Report Due Date  
April 15<sup>th</sup>

If a change in the “Responsible Official” (RO) occurs during the term of this permit, the owner or operator shall provide written notification (Form AP-100A) to the District within thirty (30) calendar days following the date a change in the designated RO occurs for this facility.

a. **VOC**

- i. The consecutive 12-month *plant-wide* VOC emissions for each month in the reporting period.

**Emission Unit U1****U1 Unit Description: UV Coaters****U1 Applicable Regulations:**

<b>FEDERALLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
2.17	Federally Enforceable District Origin Operating Permit	All
7.25	Standards of Performance for New Sources Using Volatile Organic Compounds	All

**U1 Equipment:**

<b>Emission Point ID</b>	<b>Description Make/Model</b>	<b>Applicable Regulation</b>	<b>Control Device (Control ID)</b>	<b>Stack ID</b>	<b>Application Date</b>
E1	Sakurai UV screen coater, model MS102A2	2.17 7.25	N/A	N/A	1/28/2010
E2	Sakurai UV screen coater, model MS102A2		N/A	N/A	4/25/2008
E3	Sakurai UV screen coater, model MS102A2		N/A	N/A	4/21/2008
E4	FMA UV roll coater		N/A	N/A	5/29/2015
E5	Ko Tai UV roll coaters, model ZUV-1200All		N/A	N/A	3/28/2006
E6	Ko Tai UV roll coaters, model ZUV-1200All		N/A	N/A	3/28/2006

**U1 Specific Conditions**

**S1. Standards** (Regulation 2.17, section 5.1)

**a. VOC**

- i. For Emission Points E4, E5, and E6, the owner or operator shall not allow or cause the total combined VOC emissions to exceed 5.0 tons during any consecutive 12-month period. (Regulation 7.25, section 3) (BACT)<sup>2</sup>
- ii. For Emission Points E1, E2, E3, E4, E5, and E6: the District has determined that compliance with the following VOC requirements represent Best Available Control Technology (BACT).

Raw Material	BACT Limit
UV-cured coatings (Kelstar Ultra Sheen)	1.0% by weight VOC
Cleaning solvents	2.0% by weight VOC

(Regulation 2.03, section 5.1) (Regulation 7.25, section 3) (BACT)  
(See Comment 2)

- iii. 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)
- iv. 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 five (5) years and make the records readily available to the District upon request.

**a. VOC**

- i. The owner or operator shall, monthly, maintain records of the name, quantity used, and VOC content of each VOC containing material used during each calendar month and consecutive 12-month period.
- ii. The owner or operator shall, monthly, maintain records, including calculations, which show the total VOC emissions during each

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<sup>2</sup> The District has determined that the use of low-VOC UV-cured coatings and cleaning solvents and an annual emission limit of 5.0 tons represent BACT for E4, E5, and E6. The District has determined that the use of low-VOC UV-cured coatings and cleaning solvents represent BACT for E1, E2, and E3.

consecutive 12-month period in order to demonstrate ongoing compliance with the VOC emission limits listed in S1.a.i.

- i. The owner or operator shall maintain a copy of the material safety data sheet (MSDS) for each VOC containing material used at this plant.

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

The owner or operator shall submit annual compliance reports that include the information in this section. 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. The compliance reports shall be postmarked within 60 days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.17, section 3.5.

- “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete.”
- Signature and title of the responsible official of the company.

The Annual Compliance Report is due on or before the following date of each calendar year:

Reporting Period	Report Due Date
January 1 <sup>st</sup> through December 31 <sup>st</sup>	March 1 <sup>st</sup>

The Annual Compliance Certification is due on or before the following date of each calendar year:

Reporting Period	Report Due Date
January 1 <sup>st</sup> through December 31 <sup>st</sup>	April 15 <sup>th</sup>

If a change in the “Responsible Official” (RO) occurs during the term of this permit, the owner or operator shall provide written notification (Form AP-100A) to the District within thirty (30) calendar days following the date a change in the designated RO occurs for this facility.

**a. VOC**

- i. For Emission Points E4, E5, and E6:
  - 1) Emission Unit and Emission Point ID number;
  - 2) The beginning and ending date of the reporting period; and
  - 3) The monthly and twelve consecutive month VOC emissions for the emission points in this emission unit.
  - 4) Any exceedances in emission limits. If none, the owner or operator shall submit a negative declaration.

- 5) Identification of any deviation from monitoring and record keeping requirements. If none, the owner or operator shall submit a negative declaration.
- 6) Identification of any noncompliant coatings used including the quantity of excess emissions; and
- 7) Description of any corrective action taken. If no corrective action was taken during the reporting period, the owner or operator shall submit a negative declaration.

**Emission Unit U2****U2 Unit Description: Lithographic Printing Presses****U2 Applicable Regulations**

<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
2.17	Federally Enforceable District Origin Operating Permits	All
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	All

**U2 Equipment**

<b>Emission Point ID</b>	<b>Description Make/Model</b>	<b>Applicable Regulation</b>	<b>Control Device (Control ID)</b>	<b>Stack ID</b>	<b>Application Date</b>
E7	KBA, model Rapida 105 8-color lithographic sheetfed non heat set printer	2.17 7.25	N/A	N/A	8/1/2008
E8	KBA, model Rapida 74G, model RA74G5LALV2, 5-color offset lithography sheet-fed printing press		N/A	N/A	3/26/2007
E9	KBA, model Karat 74, 4-color digital offset lithography sheetfed printing press		N/A	N/A	3/17/2006
E10	KBA, model Karat 74, 4-color digital offset lithography sheetfed printing press		N/A	N/A	12/13/2005
E11	KBA, model Karat 74 offset lithography sheet-fed printing press		N/A	N/A	2/5/2007
E12	KBA, model Karat 74 offset lithography sheet-fed printing press		N/A	N/A	2/5/2007

## U2 Specific Conditions

### S1. Standards (Regulation 2.17, Section 5.1)

#### a. VOC

- i. For Emission Point E7, the owner or operator shall not allow or the cause the VOC emissions to exceed 15.0 tons during any consecutive 12-month period. (Regulation 7.25, section 3) (BACT)
- ii. For Emission Point E8, the owner or operator shall not allow or the cause the VOC emissions to exceed 15.0 tons during any consecutive 12-month period. (Regulation 7.25, section 3) (BACT)
- iii. For Emission Point E9, the owner or operator shall not allow or the cause the VOC emissions to exceed 7.50 tons during any consecutive 12-month period. (Regulation 7.25, section 3) (BACT)
- iv. For Emission Point E10, the owner or operator shall not allow or the cause the VOC emissions to exceed 7.50 tons during any consecutive 12-month period. (Regulation 7.25, section 3) (BACT)
- v. For Emission Points E11 and E12, the owner or operator shall not allow or the cause the total VOC emissions to exceed 15.0 tons during any consecutive 12-month period. (Regulation 7.25, section 3) (BACT)<sup>3</sup>
- vi. The District has determined that compliance with the following VOC requirements represent Best Available Control Technology (BACT).

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<sup>3</sup> The lithography presses ton per year limits includes emissions from the usage of raw materials. These materials include but are not limited to: plate developer, coatings that are part of the inks, plate gum, blanket fix, silicon spray, and SMK-OD etching solution.

Raw Material	BACT Limit
Conventional Inks <sup>4</sup>	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
UV inks	3% by weight VOC
Fountain Solution	Non-Vinyl: 5% by weight VOC as applied; or 8.5% by weight if Chilled Fountain Solution at 60°F max.;  Vinyl or Plastic Sheets: 10% by weight as applied
Blanket Wash	25% by weight VOC as applied or vapor pressure ≤ 5 mm Hg at 68°F
Roller Wash	25% by weight VOC as applied or vapor pressure ≤ 5 mm Hg at 68°F
Water-based Coatings (Aqueous)	1.0 lb VOC/gal as applied

(Regulation 2.03, section 5.1) (Regulation 7.25, section 3) (BACT)<sup>5</sup>

- vii. If the fountain solution is chilled, the owner or operator shall maintain the temperature at or below 60°F for each fountain solution reservoir. (Regulation 7.25, section 3) (BACT)
- viii. The owner or operator shall use the least amount of VOC containing materials needed for the job. (Regulation 7.25, section 3) (BACT)
- ix. 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)
- x. 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

<sup>4</sup> Per EPA guidance document for Lithographic Printing and Letterpress Printing dated September 2006, the document defines varnishes as un-pigmented offset lithography inks, and therefore are to be included in the conventional ink category.

<sup>5</sup> The District has determined that the use of raw materials that comply with the emission standards in Specific Condition S1.a.i represent BACT level of control for the litho presses.

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)**

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, maintain records of the name, quantity used, and VOC content for each of the following raw materials: inks, blanket wash, roller wash, aqueous coatings, or any other VOC containing material used during each calendar month.
- ii. The owner or operator shall, monthly, maintain records, including calculations, which show the VOC emissions from Emission Point E7 during each calendar month and consecutive 12-month period in order to demonstrate compliance with S1.a.i.
- iii. The owner or operator shall, monthly, maintain records, including calculations, which show the VOC emissions from Emission Point E8 during each calendar month and consecutive 12-month period in order to demonstrate compliance with S1.a.ii.
- iv. The owner or operator shall, monthly, maintain records, including calculations, which show the VOC emissions from Emission Point E9 during each calendar month and consecutive 12-month period in order to demonstrate compliance with S1.a.iii.
- v. The owner or operator shall, monthly, maintain records, including calculations, which show the VOC emissions from Emission Point E10 during each calendar month and consecutive 12-month period in order to demonstrate compliance with S1.a.iv.
- vi. The owner or operator shall, monthly, maintain records, including calculations, which show the VOC emissions from Emission Points E11 and E12 during each calendar month and consecutive 12-month period in order to demonstrate compliance with S1.a.v.
- vii. If the quantity of a VOC containing raw material exceeds the calendar month limit specified in tables below, the owner or operator shall calculate the total VOC emissions from the litho presses for the calendar month in which the raw material usage rate was exceeded. The owner or operator shall then calculate the total VOC emissions from the litho presses for the preceding 11 months to determine if the annual VOC limit of each litho press tpy has been exceeded. The owner or operator shall continue to calculate the monthly and consecutive 12 month VOC emissions until such time the calendar month usage rate of all VOC containing materials comply with tables below.

- viii. For Emission Point E7, in lieu of calculating VOC emissions, the company can demonstrate compliance with Specific Condition S1.a.i by complying with the following usage rates:

Raw Material	Calendar Month Usage Rate
Inks (19.5% by weight VOC)	7,000 lb
Blanket Wash/Roller Cleaner (max. 6.55 lb VOC/gal)	100 gallons
Clear Coating (max. 1.0 lb VOC/gal)	1,400 gallons
Any other VOC containing materials	20 gallons (8 lb VOC/gal)

- ix. For Emission Point E8, in lieu of calculating VOC emissions, the company can demonstrate compliance with Specific Condition S1.a.ii by complying with the following usage rates:

Raw Material	Calendar Month Usage Rate
Inks (19.5% by weight VOC)	7,000 lb
Blanket Wash/Roller Cleaner (max. 6.55 lb VOC/gal)	100 gallons
Clear Coating (max. 1.0 lb VOC/gal)	1,400 gallons
Any other VOC containing materials	20 gallons (8 lb VOC/gal)

- x. For Emission Point E9, in lieu of calculating VOC emissions, the company can demonstrate compliance with Specific Condition S1.a.iii by complying with the following usage rates:

Raw Material	Calendar Month Usage Rate
Inks (19.5% by weight VOC)	3,500 lb
Blanket Wash/Roller Cleaner (6.58 lb VOC/gal)	45 gallons
Aqueous Coating/Varnish (0.50 lb VOC/gal)	1,750 gallons

- xi. For Emission Point E10, in lieu of calculating VOC emissions, the company can demonstrate compliance with Specific Condition S1.a.iv by complying with the following usage rates:

Raw Material	Calendar Month Usage Rate
Inks (19.5% by weight VOC)	4,417 lb
Blanket Wash/Roller Cleaner (max. 6.48 lb VOC/gal)	45 gallons
Aqueous Coating/Varnish (max. 0.50 lb VOC/gal)	1,800 gallons

- xii. For Emission Points E11 and E12, in lieu of calculating VOC emissions, the company can demonstrate compliance with Specific Condition S1.a.v by complying with the following usage rates:

Raw Material	Calendar Month Usage Rate
Inks (19.5% by weight VOC)	6,500 lb
Blanket Wash/Roller Cleaner (max. 6.48 lb VOC/gal)	80 gallons
Clear Coating (max. 0.5 lb VOC/gal)	3,200 gallons

Raw Material	Calendar Month Usage Rate
Any other VOC containing materials	20 gallons (8 lb VOC/gal)

- xiii. To demonstrate compliance with Specific Condition S1.a.i., the owner or operator shall maintain monthly records that show the quantity (in pounds) of specialty inks used during each calendar month and calculate the percentage of the total inks used that are classified as specialty inks as determined on a consecutive 12-month basis.
- xiv. The owner or operator shall maintain a copy of the material safety data sheet (MSDS) for each VOC containing material used at this plant.
- xv. The owner or operator shall determine the VOC content (as applied) of each batch of press-ready fountain solution by one of the following methods:
  - 1) The owner or operator shall determine the VOC content of each batch of press-ready fountain solution by calculation. The calculation shall be kept in a batch log. The owner or operator shall document any deviation from the standard fountain solution makeup. Any manual additions of VOC made after each fountain solution batch is prepared shall be documented and the VOC content of the fountain solution shall be calculated to demonstrate compliance with the as applied fountain solution standard specified in Specific Condition S1.a.i. Documentation of any deviations or manual additions shall include the date and time of occurrence.
  - 2) Alternatively, a sample of the fountain solution (as applied) may be taken from the fountain solution tray or reservoir and measured with a hydrometer, refractometer, or conductivity meter. Within 30 days after the effective date of this permit, the owner or operator shall establish the appropriate compliance indicator ranges for each of the analytical methods above that the source will use to demonstrate compliance with the fountain solution VOC content (as applied). Upon District approval of the established compliance indicator ranges, the owner or operator shall analyze the VOC content of each fresh batch of press ready fountain solution as prepared and after each addition of a VOC containing material to the fountain solution reservoir made following a fresh batch of fountain solution prepared. The owner or operator shall maintain daily records of the results of each observed reading including the date, time, and the name of the person who observed the reading.
- xvi. The owner or operator of a lithographic 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 Specific Condition S1.a.i. 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), as-applied, comply with Specific Condition S1.a.i.
- xvii. 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.
- xviii. To demonstrate compliance with the fountain solution temperature requirements in Specific Condition S1.a.vii. the owner or operator shall use a thermometer or other temperature detection device capable of reading to within 2.0 degrees to measure and record the temperature of each fountain solution reservoir once per day for each operating day and keep daily records of the temperature.
- xix. The VOC emissions from the litho presses can be calculated according to the following methodology or another approved in writing by the District:

#### Off-set Lithography Sheet-fed Presses

$$E_{VOC} = [(I_{VOC})(I_{Ret}) + (FS_{VOC}) + (BW_{VOC}) + (RW_{VOC}) + (C_{VOC}) + ((CS_{VOC})(R))]$$

$$E_{VOC} = \text{lb VOC Emissions}$$

$$I_{VOC} = \text{lb of sheet-fed ink used} \times \text{weight \% VOC in each ink}$$

$$I_{Ret} = 0.050 \text{ (1 - Ink oil retention factor of 0.90 for non-heatset inks)}$$

$$FS_{VOC} = \text{Qty of fountain solution used (gallons)} \times \text{VOC content of fountain solution as applied (lb/gal)}$$

$$BW_{VOC} = \text{Qty of blanket wash used (gallons)} \times \text{VOC content of blanket wash as applied (lb/gal)}$$

$$RW_{VOC} = \text{Qty of roller wash used (gallons)} \times \text{VOC content of roller wash as applied (lb/gal)}$$

$$C_{VOC} = \text{Qty of coatings used (gallons)} \times \text{VOC content of coating as applied (lb/gal)}$$

$$CS_{VOC} = \text{Qty of each cleanup solvent used (gallons)} \times \text{VOC content as applied (lb/gal)}$$

$$R = 1.0 \text{ or } 0.50 \text{ (Fraction of cleanup solvent unrecovered)}$$

An "R" factor of 0.50 (50 percent VOC credit) may be used for solvents (vapor pressure  $\leq$  5 mm Hg at 68°F) used to manually clean press components if the rags/wipes used to manually clean press components are stored in closed/sealed containers immediately after use and the company can document the quantity of solvent recovered.

**S2. Reporting (Regulation 2.17, section 5.2)**

The owner or operator shall submit annual compliance reports that include the information in this section. 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. The compliance reports shall be postmarked within sixty (60) days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.17, section 3.5:

- “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete.”
- Signature and title of the responsible official of the company.

The Annual Compliance Report is due on or before the following date of each calendar year:

Reporting Period	Report Due Date
January 1 <sup>st</sup> through December 31 <sup>st</sup>	March 1 <sup>st</sup>

The Annual Compliance Certification is due on or before the following date of each calendar year:

Reporting Period	Report Due Date
January 1 <sup>st</sup> through December 31 <sup>st</sup>	April 15 <sup>th</sup>

If a change in the “Responsible Official” (RO) occurs during the term of this permit, the owner or operator shall provide notification (Form 100A) to the District within thirty (30) calendar days following the date a change in the designated RO occurs for this facility.

**a. VOC**

- i. The calendar month and consecutive 12-month total *plant-wide* VOC emissions for each month in the reporting period.
- ii. Identification of all periods of exceeding a VOC emission limit or standard specified, including the quantity of excess emissions. If no excess VOC emissions occur during a reporting period, the owner or operator shall submit a negative declaration.

**U2 Comments**

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

<b>Pollutant</b>	<b>Monitoring</b>	<b>Record Keeping</b>	<b>Frequency</b>
VOC	Raw material usage	Record the monthly usage of each VOC containing material	Monthly

<b>Pollutant</b>	<b>Monitoring</b>	<b>Record Keeping</b>	<b>Frequency</b>
	Emissions	Calculate and record the calendar month and rolling 12-month total VOC emissions if monthly raw material usage rate is exceeded	As required
	Fountain solution temperature	Record the temperature of each fountain solution reservoir	Daily
	Fountain solution VOC content	See Specific Condition S1.a.xvi.	As required
	Raw material VOC content	Maintain a copy of the MSDS for each VOC containing material used	Continuous

**Emission Unit U3****U3 Unit Description: Digital Printers****U3 Applicable Regulations**

<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
2.17	Federally Enforceable District Origin Operating Permits	All
7.25	Standard of Performance for New Sources Using Volatile Organic Compounds	All

**U3 Equipment**

<b>Emission Point ID</b>	<b>Description Make/Model</b>	<b>Applicable Regulation</b>	<b>Control Device (Control ID)</b>	<b>Stack ID</b>	<b>Application Date</b>
E13	Four color Fuji 720S (JP720F) with IR dryer	2.17 7.25	N/A	N/A	4/24/2015
E14	Four color Hewlett Packard HP 10000		N/A	N/A	4/24/2015
E15	Four color Hewlett Packard HP 10000		N/A	N/A	4/24/2015

### U3 Specific Conditions

#### S1. Standards (Regulation 2.17, section 5.1)

##### a. VOC

- i. For the new printers E13, E14, and E15 combined the owner or operator shall not allow or cause *plant-wide* 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)<sup>6</sup>

#### 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, maintain records of the name, quantity used, and VOC content for each of the following raw materials: inks, blanket wash, roller wash, aqueous coatings, or any other VOC containing material used during each calendar month.
- ii. The owner or operator can demonstrate compliance with Specific Condition S1.a.i by demonstrating that the VOC containing material is less than 1,250 gallons during the 12 consecutive month period. If the usage rate of VOC containing materials exceeds 1,250 gallons per 12-month period, the owner or operator shall calculate the VOC emissions during the 12 consecutive month period to demonstrate compliance with Specific Condition S1.a.i.<sup>7</sup>

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

The owner or operator shall submit annual compliance reports that include the information in this section. 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. The compliance reports shall be postmarked within sixty (60) days following the end of each reporting period. All compliance reports shall include the following certification statement per Regulation 2.17, section 3.5:

- “Based on information and belief formed after reasonable inquiry, I certify that the statements and information in this document are true, accurate, and complete.”

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<sup>6</sup> There is currently no other equipment included in this limit as all other equipment subject to Regulation 7.25 has BACT.

<sup>7</sup> The District believes that the 1,250 gallons VOC containing material usage will ensure the VOC emissions less than 5 tons during the 12 consecutive month period. Therefore in lieu of calculating VOC emissions, the company can easily demonstrate compliance with Specific Condition S1.b if the VOC containing material is less than 1,250 gallons during the 12 consecutive month period.

- Signature and title of the responsible official of the company.

The Annual Compliance Report is due on or before the following date of each calendar year:

Reporting Period	Report Due Date
January 1 <sup>st</sup> through December 31 <sup>st</sup>	March 1 <sup>st</sup>

The Annual Compliance Certification is due on or before the following date of each calendar year:

Reporting Period	Report Due Date
January 1 <sup>st</sup> through December 31 <sup>st</sup>	April 15 <sup>th</sup>

If a change in the “Responsible Official” (RO) occurs during the term of this permit, the owner or operator shall provide notification (Form 100A) to the District within thirty (30) calendar days following the date a change in the designated RO occurs for this facility.

**b. VOC**

- i. Identification of all periods of exceeding a VOC emission, including the quantity of excess emissions. If no excess VOC emissions occur during a reporting period, the owner or operator shall submit a negative declaration.

### Insignificant Activities

Equipment	Quantity	PTE (tn/yr)	Basis for Exemption
Pressurized VOC storage vessels	2	0 VOC	Regulation 1.02, Appendix A
Brazing, soldering, or welding equipment	1	0.41 PM	Regulation 1.02, Appendix A

### IA Comments

- 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) Activities identified in regulation 1.02, Appendix A, may not require a permit and may be insignificant with regard to application disclosure requirements but may still have generally applicable requirements that continue to apply to the source and must be included in the permit.
- 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) In lieu of recording annual throughputs and calculating actual annual emissions, the owner or operator may elect to report the pollutant Potential To Emit (PTE) quantity listed in the Insignificant Activities table, as the annual emission for each piece of equipment, since the emissions from the source's Insignificant Activities are very minor in comparison to the plant wide emissions.
- 6) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.
- 7) The owner or operator shall submit an updated list of insignificant activities whenever changes in equipment located at the facility occur that cause changes to the plant wide emissions.

### **FEDOOP Fee Comment**

On May 15, 2013, the Board approved revisions to Regulation 2.08, which implemented a new fee structure. As a result, the Print Fulfillment Services LLC facility will be required to pay annual fees.

The Significant Permit Revision fee for a FEDOOP is \$2,582.58 in accordance with the Schedule of Fees Table, Regulation 2.08, section 12. The company has paid \$508.48 for an Administrative Permit Revision, prior to the District determining that a Significant Permit Revision was needed since new equipment is being added. The Administrative fee is credited and the amount for the Significant Permit Revision will be \$2,074.10. This fee shall be paid to the District prior to the issuance of the permit.