



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



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

Permit No.: O-0333-15-F

Plant ID: 0333

Effective Date: x/xx/2015

Expiration Date: x/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:

V.G. Reed & Sons, Inc.  
 1002 South 12<sup>th</sup> Street  
 Louisville, Kentucky 40210

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

Application No.:	30132	Application Received:	04/06/2007
	67796		09/22/2008
	67750		10/28/2014
	68249		12/02/2014
	69816		03/02/2015

Permit Writer: Elise Venard  
 Date of Public Notice: 07/31/2015

{Manager1}  
 Air Pollution Control Officer  
 {date1}

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**FEDOOP Permit Revisions/Changes**

Revision No.	PermitNo.	Issuance Date	Public Notice Date	Change Type	Change Scope	Description
Initial	173-01-F	11/5/2001	6/03/2001	Initial	Entire Permit	Initial Permit Issuance
N/A	O-0333-15-F	xx/xx/2015	07/31/2015	Renewal	Entire Permit	<p>Permit renewal to include:</p> <ul style="list-style-type: none"> <li>• Removal of the Man Roland press, model RZK633 and Man Roland press, model RZK624 from permit 173-01-F, attachment 31-92</li> <li>• Removal of the Strachan Henshaw Veriquick press from permit 173-01-F, attachment 246-96</li> <li>• Removal of the Kolbus bookbinding equipment from permit 173-01-F, attachment 97-96</li> <li>• Modification of King press, model 3020 from permit 173-01-F, attachment 246-96</li> <li>• Addition of Stitching emission units</li> <li>• Addition of Insignificant Activity units</li> </ul>

## Construction Permit Incorporated in Renewal:

<b>Permit No.</b>	<b>Issue Date</b>	<b>Description</b>
382-05-C	10/21/2005	Installation of Horizon bookbinding unit, model BQ-270
274-07-C	6/30/2008	Installation of Heidelberg press model SM 102-8-P+L
196-09-C	10/6/2009	Repurposing of bailer and cyclone
197-09-C	10/6/2009	Repurposing of PM filtering system
217-09-C	10/9/2009	Installation of Cyclone Engineering blast cabinet, model 3624, and bag filter system, model DC-1500
156-09-C (R1)	10/31/2009	Installation of King press, model 1-LG-50-166
219-09-C	10/31/2009	Installation of dryer and Airtex "3.0" RTO
71-10-C	6/30/2010	Installation of Megtec Systems dryer and Megtec Systems CTO, model Quantum 2000

### 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
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
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 9440-0.
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 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:

<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

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

**Plant-wide Applicable Regulations:**

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
2.17	Federally Enforceable District Origin Operating Permits	3.5, 5.1, 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 VOC emissions to exceed 25 tons during any consecutive 12-month period. (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 (BACT), Permit 156-09-C (R1)).

**b. HAP**

- i. The owner or operator shall not allow or cause the plant-wide emissions of any individual HAP to equal or exceed 5 tons during any consecutive 12-month period. (Regulation 2.17, section 5.1)
- ii. The owner or operator shall not allow or cause the plant-wide emissions of all HAPs combined to equal or exceed 12.5 tons during any consecutive 12-month period. (Regulation 2.17, section 5.1)

**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 of the name, quantity used, and VOC content 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 consecutive 12-month period.

- ii. The owner or operator shall maintain a copy of the material safety data sheet (MSDS) for each VOC-containing material used at this plant.
- iii. The owner or operator shall monthly maintain records, including calculations, which show the total VOC emissions during each calendar month and consecutive 12-month period.

b. **HAP**

- i. The owner or operator shall maintain monthly records of the name, quantity used, and HAP content for each of the following raw materials: inks, fountain solution concentrate, fountain solution additive, blanket wash, roller wash, press cleaning materials, and any other HAP containing material used during each calendar month and consecutive 12-month period.
- ii. The owner or operator shall maintain a copy of the material safety data sheet (MSDS) for each HAP-containing material used at this plant.
- iii. The owner or operator shall monthly maintain records, including calculations, which show the total HAP emissions during each calendar month and consecutive 12-month period.

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

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

a. **VOC**

All annual compliance reports shall include the total plant-wide calendar month VOC emissions and the total plant-wide consecutive 12-month VOC emissions for each month in the reporting period.

b. **HAP**

- i. The total plant-wide calendar month emissions and consecutive 12-month emissions of each individual HAP for each month in the reporting period.
- ii. The total plant-wide calendar month emissions and consecutive 12-month emission of all HAPs combined for each month in the reporting period.

**Emission Unit U1:** Printing presses – King III, King IV, King V, King VI, King VII, and Heidelberg.

**U1 Applicable Regulations:**

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<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

**U1 Equipment:**

<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>	<b>Stack ID</b>	<b>Installation Date</b>
King III	King, 2-color, cold-set press, 22,000 sheet/hr.	2.17 7.25	N/A	N/A	11/1994
King IV	King, 3020, 4-color, 25,000 sheet/hr., heat-set and cold-set process web offset printer with dryer rated at 4.4 MMBtu/hr., and Catalytic Thermal Oxidizer rated at 0.864 MMBtu/hr.		CTO,	S-1	2/1997
King V	King, 2-color, cold-set press, 22,000 sheet/hr.		N/A	N/A	2/1997
King VI	King, 2-color, cold-set press, 22,000 sheet/hr.		N/A	N/A	11/1998
King VII	King, F42-2-96-CNC-75, 4-color, 25,000 sheet/hr., heat-set and cold-set web press with dryer rated at 2.2 MMBtu/hr., and Regenerative Thermal Oxidizer rated at 3.49 MMBtu/hr.		RTO,	S-2	11/2005
Heidelberg	Heidelberg, SM 102-8-P+L, 8-color, 15,000 sheet/hr., sheet-fed lithography press.		N/A	N/A	6/2008

**U1 Control Devices:**

<b>Control ID</b>	<b>Description</b>	<b>Control Efficiency</b>	<b>Performance Indicator</b>	<b>Stack ID</b>
CTO	Megtec Systems "Quantum 2,000" catalytic oxidizer installed in 2010	95%	Chamber Temp.	S-1
RTO	Airex "3.0" regenerative thermal oxidizer installed in 2009	99%	Chamber Temp.	S-2

## U1 Specific Conditions

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

#### a. VOC

- i. The owner or operator shall not allow or cause the VOC emissions from King III, King IV, King V, King VI, and Heidelberg printing presses combined to exceed 20 tons per consecutive 12-month period. (Regulation 7.25, Section 3 (BACT) and Permit 0173-01-F)
- ii. The owner or operator shall operate and maintain the CTO at all times the King IV web press and dryer are in heat-set web operation (Regulation 7.25, section 3 (BACT)). The following shall ensure compliance with this operating requirement:
  - 1) The owner or operator shall operate and maintain monitoring device that measures the gas temperature before the catalyst bed. (Regulation 7.25, section 3 (BACT))
  - 2) The King IV's Catalytic Thermal Oxidizer shall operate at a temperature that ensures a 95% VOC destruction efficiency. Upon startup of the oxidizer, the owner or operator shall monitor the inlet gas temperature to assure a minimum temperature of 650°F. New minimum temperatures may be established during the comprehensive performance testing which must be approved by the District. (Regulation 7.25, section 3 (BACT))
- iii. For the King VII printing press, the owner or operator shall not allow or cause the VOC emissions to exceed 10 tons during any consecutive 12-month period (Regulation 7.25, section 3 (BACT), Permit 156-09-C (R1)).
  - 1) The owner or operator shall operate and maintain the King VII's RTO at all times the press and associated dryer are in heat-set web operation (Regulation 7.25, section 3 (BACT)) (Permit 156-09-C (R1) & 219-09-C).
  - 2) The District has determined that the regenerative thermal oxidizer (RTO) and the following VOC standards represent Best Available Control Technology (BACT) for the King VII web printing press.<sup>1</sup> (Regulation 7.25, section 3 (BACT)) (Permit 156-09-C (R1))

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<sup>1</sup> The District has determined that the thermal oxidizer and the use of raw materials that comply with the VOC standards specified in this permit represents BACT level of control for the King VII heatset web press. The potential uncontrolled VOC emissions are 33.40 tons per year and the potential controlled VOC emissions are 9.52 tons per year.

Raw Material	BACT Limit
Conventional Inks	18% by weight VOC
Specialty Inks	25% by weight VOC and 10% of total ink usage
Fountain solution	1.6% by weight VOC, if the fountain solution contains alcohol and is not refrigerated. 3.0% by weight VOC, if the fountain solution contains alcohol and is refrigerated to 60°F or less. 5.0% by weight VOC, if the fountain solution contains no alcohol and is not refrigerated. 8.5% by weight VOC, if the fountain solution contains no alcohol and is refrigerated to 60°F or less.
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 @ 68°F
Water-based Coatings	1.0 lb. VOC/gal as applied

- 3) The owner or operator shall install a temperature monitoring device equipped with a continuous recorder. The temperature monitoring device shall be installed in the combustion chamber or in the ductwork immediately downstream of the combustion chamber in a position before any substantial heat exchange occurs. All monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturers' specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately. (Regulation 7.25, section 3 (BACT))
- 4) Upon startup of the thermal oxidizer, the owner or operator shall monitor the combustion chamber temperature to assure a minimum temperature of 1,450°F. During stack testing as required by **S4 Testing**, the owner or operator shall establish a minimum combustion chamber temperature to ensure a destruction efficiency of 99%.<sup>2</sup> New minimum temperatures may be established during

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2 V.G. Reed has yet to test their control devices or submit a testing schedule to The District. The thermal oxidizer has never been declared to have achieved normal operation. (Inspection report DM# 64446). The original application dated April 30,2010 was for both a CTO and RTO, only a CTO was installed.

the comprehensive performance testing which must be approved by the District. (Regulation 7.25, Section 3 (BACT)) (Permit 219-09-C)

- 5) See Plant-wide Emission Unit.

b. **HAP**

See Plant-wide Emission Unit.

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 the King III, King IV, King V, King VI, King VII, and Heidelberg printing presses; the owner or operator shall record the name, VOC content, and quantity used of each VOC containing material used during each calendar month and consecutive 12-month period.
- ii. For the King III, King IV, King V, King VI, and Heidelberg presses; the owner or operator shall keep monthly records, including calculations, of all VOC emissions during each calendar month and consecutive 12-month period.
- iii. For the King web presses, 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 this permit. 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 the source will use to demonstrate compliance with the fountain solution VOC content (as applied). The owner or operator shall analyze the VOC content each time a fresh batch of press ready fountain solution is prepared and after each time a VOC containing material is added to the fountain solution reservoir following the initial solution makeup. 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

**Lithographic Presses:**

The emissions from the presses are based on VOC and HAP content of the materials used.

VOC emissions shall be calculated according to the following methodology, unless the District approves an alternative method in writing.

**Heatset Web Press**

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

- $E_{VOC}$  = 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 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 permit requirements 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 permit requirements.
- v. 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.
- vi. For the King IV associated Catalytic Thermal Oxidizer, The owner shall comply with the following monitoring requirements to ensure compliance with 95% destruction efficiency when operating in heat-set mode:
- 1) Maintain a monthly 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.
  - 2) Operate and maintain the oxidizer at all times the press is in heatset operation.
  - 3) Install and maintain monitoring device to measure the inlet gas temperature.
  - 4) Operate and maintain an electrical interlock between the web press and the catalytic oxidizer that automatically shuts down the associated heat-set press if the inlet gas temperature falls below 650°F.
  - 5) Record the inlet temperature once per operating day to demonstrate compliance permit conditions.

- 6) Maintain daily records that identify all periods of bypassing the catalytic oxidizer while the King IV web press is in operation. The records shall include the date, duration (including the start and stop time) of each bypass event, a brief summary of the cause or reason for bypassing the thermal oxidizer, a description of the corrective action taken to minimize the extent and duration of each bypass event, the emissions of VOCs during each bypass event, and measures implemented to prevent reoccurrence of the situation that resulted in bypassing the catalytic oxidizer.
  - 7) If the inlet gas temperature drops below the minimum allowed temperature for any time, the owner or operator must assume a 0% VOC removal efficiency for that time period when calculating VOC emissions from the associated press.
  - 8) If, during a reporting period month, the unit has not been run in heat-set mode a negative declaration shall be noted in the record.
- vii. For the King VII printing press, the owner or operator shall monthly maintain records, including calculations which show the total VOC emissions during each calendar month and consecutive 12-month period.
- viii. For the King VII associated Regenerative Thermal Oxidizer, the owner or operator shall comply with the following recordkeeping requirements when operating in heatset mode:
- 1) Maintain a monthly maintenance log for the thermal oxidizer and monitoring equipment that includes a description of any maintenance performed, repairs made, or replacement of any components.
  - 2) Install and maintain monitoring device to measure the combustion chamber temperature.
  - 3) Record the oxidizing chamber temperature once per operating day to demonstrate compliance with permit conditions.
  - 4) The owner or operator of the RTO shall monitor and maintain records that identify all periods of bypassing the thermal oxidizer while the King VII heat-set web press is in operation. The records shall include the date, duration (including the start and stop time) of each bypass event, a brief summary of the cause or reason for bypassing the thermal oxidizer, a description of the corrective action taken to minimize the extent and duration of each bypass event, the emissions of VOC during each bypass event, and measured implemented to prevent reoccurrence of the situation that resulted in bypassing the thermal oxidizer.

- 5) If, during a reporting period month, the unit has not been run in heat-set mode a negative declaration shall be noted in the record.
- 6) Operate and maintain an electrical interlock between the web press and the oxidizer that automatically shuts down the associated heat-set web press if the combustion chamber temperature falls below 1450°F.
- 7) If the combustion chamber temperature falls below minimum standards for any time, the owner or operator must assume a 0% efficiency of removal when calculating VOC emissions from the King VII press for that time.
- 8) See Plant-wide Emission Unit.

b. **HAP**

See Plant-wide Emission Unit.

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 deviations from a permit term or condition, including periods of excess emissions. For additional reporting requirements see Plant-wide Emission Unit.

a. **VOC**

- i. For the King III, King IV, King V, King VI, and Heidelberg printing presses; the annual report shall include a summary of the monthly records, including calculations, of all VOC emissions during each calendar month and consecutive 12-month period.
- ii. For the King VII lithographic press the annual report shall include a summary of monthly records, including calculations which show the total VOC emissions during each calendar month and consecutive 12-month period.
- iii. For both the King IV associated Catalytic Thermal Oxidizer and the King VII associated Regenerative Thermal Oxidizer; the annual report must include the following information;

- 1) Identification of all periods of bypassing the oxidizer while the associated press was in operation during a reporting period. Information about a bypass event shall include:
    - (a) The date, duration (including the start and stop time) of each bypass event,
    - (b) Identification of the control device and Emission Point,
    - (c) Total VOC emissions during each bypass event
    - (d) Summary information on the cause or reason for each bypass event,
    - (e) Corrective action taken to minimize the extent and duration of each bypass event, and
    - (f) Measures implemented to prevent reoccurrence of the situation that resulted in bypassing the thermal oxidizer.
  - 2) If there are no periods of bypassing the thermal oxidizer during a reporting period, the annual compliance report must include a statement that there were no periods of bypassing the thermal oxidizer during the reporting period.
- iv. For both the King IV associated Catalytic Thermal Oxidizer and the King VII associated Regenerative Thermal Oxidizer; the annual report shall include:
- 1) Identification of all periods of operating below the minimum combustion chamber temperature during a reporting period. Information about low temperature events shall include:
    - (a) Identification of the control device and Emission Point,
    - (b) The date of the excursion,
    - (c) The observed combustion chamber temperature,
    - (d) Corrective action taken to minimize the extent and duration of the excursion, and
    - (e) Measures implemented to prevent reoccurrence of the situation the resulted in operating below the minimum combustion chamber temperature.
  - 2) 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.

b. **HAP**

See Plant-wide Emission Unit.

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

- i. For both the Regenerative Thermal Oxidizer and the Catalytic Thermal Oxidizer, the owner or operator shall conduct a stack test within 180 days of achieving normal operation, thereafter the Company shall retest each affected device at least once every 10 years. Using EPA Reference Test Method 25 or 25A, as appropriate, all testing shall be conducted within  $\pm$  10% of the maximum press production rate on the inlet and outlet of the control device. 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 stack test shall consist of three 1-hour test runs. 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 annual emission limits.
- iii. 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.
- iv. The owner or operator shall submit written compliance test plans (protocol) for the control efficiency and capture efficiency. They shall submit a written compliance test plan that includes the EPA test methods that will be used for compliance testing, the process operating parameters that will be monitored during the compliance test, and the control device performance indicators that will be monitored during the compliance test. The compliance test plan shall be furnished to the District at least 30 days prior to the actual date of the compliance test. Attached to the permit is a Protocol Checklist for a Performance Test with the information to be submitted in the protocol.
- v. 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.<sup>3</sup>

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<sup>3</sup> 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.

- vi. The owner or operator shall provide the District at least 10 days prior notice of any compliance test to afford the District the opportunity to have an observer present.
- vii. The owner or operator shall furnish the District a written report of the results of the compliance test within 60 days following the actual date of the compliance test.
- viii. The owner or operator shall provide written notification to the District of the actual date of initial startup. The written notification shall be postmarked within 15 days after the startup date.

**Emission Unit U2:** 1 Horizon book binder, 4 Muller stitching machines

**U2 Applicable Regulations:**

<b>DISTRICT ONLY ENFORCEABLE REGULATIONS</b>		
<b>Regulation</b>	<b>Title</b>	<b>Applicable Sections</b>
2.17	Federally Enforceable District Origin Operating Permits	All
7.08	Standards of Performance for New Process Operations	3.1.1, 3.1.2

**U2 Equipment:**

<b>Emission Point</b>	<b>Description</b>	<b>Applicable Regulation</b>	<b>Control ID</b>	<b>Stack ID</b>	<b>Installation Date</b>
Horizon	Horizon book binder model BQ-270, rated at 11,000 book/hr.	2.17, 7.08	Collection bag	N/A	11/2005
Muller 2	Muller Martini Bravo Plus Saddle stitching machine, model 335-0400, rated at 12,000 book/hr.		Central PM	N/A	2007
Muller 2	Muller Bravo stitching machine, model 335-0401, rated at 12,000 book/hr.		Central PM	N/A	2007
Muller 3	Muller Bravo stitching machine, model 380-0400, rated at 12,000 book/hr.		Central PM	N/A	2007
Muller 4	Muller Bravo stitching machine, model 380-0401, rated at 12,000 book/hr.		Central PM	N/A	2007

**U2 Control Devices:**

<b>Control ID</b>	<b>Description</b>	<b>Control Efficiency</b>	<b>Stack ID</b>
Collection bag	Dust collection bag	95 %	N/A
Central PM	Centrally collecting plant-wide-installed scrap recycling system consisting of a bailer, capacity of 6,111 lb./hr. with cyclone and 20-bag particulate matter filtering system..	95 %	N/A

## U2 Specific Conditions

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

#### a. **PM/PM<sub>10</sub>**

- i. The owner or operator shall operate and maintain the Collection Bag at all times the Horizon binder is in operation (Regulation 2.17, section 5.1).
- ii. The owner or operator shall operate and maintain the Central PM collection system at all times the Muller stitching units are in operation (Regulation 2.17, section 5.1).
- iii. The owner or operator of the Horizon binder and Muller stitching units shall not allow or cause the PM/PM<sub>10</sub> emissions to exceed 2.34 lb./hr. per piece of equipment (Permit 382-05-C)(Regulation 7.08, section 3.1.2)<sup>4</sup>

#### b. **Opacity**

The owner or operator of the Horizon Binding unit and Muller stitching units shall not allow or cause visible emissions to exceed twenty percent (20%) opacity (Regulation 7.08, section 3.1.1)(Permit 382-05-C).

### 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. **PM/PM<sub>10</sub>**

There are no Monitoring or Record Keeping requirements for this Emission Unit.

#### b. **Opacity**

- i. For the Horizon bookbinding unit the owner or operator shall conduct a monthly one-minute visible emissions survey during normal process operation to demonstrate compliance with the 20% emission opacity limit. No more than four emission points shall be observed simultaneously. The opacity surveys can be performed on the building exhaust points if the process is inside an enclosure
- ii. At emission points where visible emissions are observed, the owner or operator shall initiate corrective action within eight hours of the initial observation. If the visible emissions persist the owner or operator shall

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<sup>4</sup> The District has determined that the potential uncontrolled hourly PM emissions cannot exceed the applicable PM emission standard; therefore, no monitoring, record keeping, or reporting is required for purposes of demonstrating ongoing compliance with the PM emission standard from Regulation 7.08.

perform or cause to be performed a Method 9, in accordance with 40 CFR Part 60, Appendix A, within 24 hours of the initial observation.

- iii. The owner or operator shall maintain monthly records of the results of all visible emissions surveys and Method 9 tests performed. The records shall include the date of each VE survey, the name of the person conducting the survey, whether or not visible emissions were observed, and what if any corrective action was performed.
- iv. If an emission point is not being operated during a given month, then no visible emission survey needs to be performed and a negative declaration shall be entered in the record.

**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 deviations from a permit term or condition, including periods of excess emissions. For additional reporting requirements see Plant-wide Emission Unit.

**a. PM/PM<sub>10</sub>**

There are no reporting requirements for this Emission Unit to demonstrate compliance with the PM emission standard.

**b. Opacity**

- i. The annual report for this emission unit, must include the following information:
  - 1) The results of the monthly and consecutive 12-month VE surveys performed which must include the information listed under S2.Opacity above.
  - 2) Any deviation from the requirement to perform the required VE surveys or Method 9 tests.
  - 3) Any deviation from the requirement to record the results of each VE survey and Method 9 test performed.
  - 4) The number, date, and time of each monthly VE Survey where visible emissions were observed and the results of the Method 9 test performed.
  - 5) Identification of all periods of exceeding the opacity standard.

### Insignificant Activities

Equipment	Quantity	PTE (tpy)	Regulation Basis
Gammerler compensating stacker trimmer & gluer, model STC-70	1	PM = 0.259	7.08
Stahl Pharm folder, model 1.77-36	1	PM = 0.259	7.08
Stahl 34" folder, model RF-56V2	1	PM = 0.259	7.08
Stahl 40" folder, model RF-66V2	1	PM = 0.259	7.08
Stahl Heidelberg folder, model RFH-82	1	PM = 0.259	7.08
Stahl Heidelberg folder, model RFH-66	1	PM = 0.259	7.08
Miehle Vertical die cutter, model V-50	1	PM = 0.259	7.08
MM DK cutter, model 7590	1	PM = 0.259	7.08
Perfecta cutter, model 132	1	PM = 0.259	7.08
Perfecta cutter, model 115 TVC	1	PM = 0.259	7.08
Polar cutter, model 137 EMC MON	1	PM = 0.259	7.08
Cyclone Engineering, model 3624, serial number 2085, rated at 90 psi, aluminum oxide, abrasive blast cabinet with bag filter system model DC1500, efficiency of 95%	1	PM = 2.96, PM <sub>10</sub> = 1.42	7.08
Grafix Powder Star Duo Plus XL corn starch sprayer, model 3961236-AO6	1	PM = 0.43	7.08
Gammerler compensating stacker trimmer & gluer, model STC-70	1	VOC = 0.0525	7.25
Gammerler gluer, model RS111	1	VOC = 0.0525	7.25
HHS Installation KIT Xmelt gluer, model 45011700	1	VOC = 0.0525	7.25
Accufeed D&K Laminator, model 27-5415	1	VOC = 0.0525	7.25
Kodak platemaker, model MAGNUS 800	1	VOC = 0.0665	7.25
Kodak platemaker, model NE50	1	VOC = 0.0665	7.25
Greymills   PL422A   cold solvent Metal Cleaning   pump with cleaning brush   no conveyor   no secondary reservoir	1	VOC = 0.618	6.18

- 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 that occurred during the preceding year, with the compliance certification due April 15<sup>th</sup>.
- 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, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.

**IA-1 Equipment: Miscellaneous Particulate Matter Emitting Equipment**

<b>Emission Point</b>	<b>Equipment</b>	<b>Quantity</b>	<b>PTE (tpy)</b>	<b>Applicable Regulations</b>
IA-1a	Gammerler compensating stacker trimmer & gluer, model STC-70	1	PM = 0.259	7.08
IA-1b	Stahl Pharm folder, model 1.77-36	1	PM = 0.259	
IA-1c	Stahl 34" folder, model RF-56V2	1	PM = 0.259	
IA-1d	Stahl 40" folder, model RF-66V2	1	PM = 0.259	
IA-1e	Stahl Heidelberg folder, model RFH-82	1	PM = 0.259	
IA-1f	Stahl Heidelberg folder, model RFH-66	1	PM = 0.259	
IA-1g	Miehle Vertical die cutter, model V-50	1	PM = 0.259	
IA-1h	MM DK cutter, model 7590	1	PM = 0.259	
IA-1i	Perfecta cutter, model 132	1	PM = 0.259	
IA-1j	Perfecta cutter, model 115 TVC	1	PM = 0.259	
IA-1k	Polar cutter, model 137 EMC MON	1	PM = 0.259	
IA-1l	Cyclone Engineering, model 3624, serial number 2085, rated at 90 psi, aluminum oxide, abrasive blast cabinet with bag filter system model DC1500, efficiency of 95%	1	PM 2.96, PM10 = 1.42	
IA-1m	Grafix Powder Star Duo Plus XL corn starch sprayer, model 3961236-AO6	1	PM = 0.43	

**IA-1 Specific Conditions****S1. Standards** (Regulation 2.17, section 5.2)**a. PM/PM<sub>10</sub>**

The owner or operator shall not allow or cause the PM emissions to exceed 2.34 lb./hr. per piece of equipment. (Regulation 7.08, section 3.1.2)(Permit 217-09-C)  
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**b. Opacity**

The owner or operator of the above listed equipment shall not allow or cause visible emissions to exceed twenty percent (20%) opacity (Regulation 7.08, section 3.1.1)

**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. PM/PM<sub>10</sub>**

There are no particulate matter compliance monitoring or record keeping requirements for the above listed equipment.

**b. Opacity**

There are no opacity compliance monitoring or record keeping requirements for the above listed equipment.

**S3. Reporting** (Regulation 2.17, section 5.2)**a. PM/PM<sub>10</sub>**

There are no particulate matter reporting requirements for the above listed equipment.

**b. Opacity**

There are no opacity reporting requirements for the above listed equipment.

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5 The potential uncontrolled hourly PM emissions can not exceed the applicable PM emission standard; therefore, no monitoring, record keeping, or reporting is required for purposes of demonstrating ongoing compliance with the PM emission standard from Regulation 7.08.

**IA-2 Equipment Miscellaneous VOC Emitting Equipment**

<b>Emission Point</b>	<b>Equipment</b>	<b>Quantity</b>	<b>PTE (tpy)</b>	<b>Applicable Regulations</b>
IA-2a	Gammerler compensating stacker trimmer & gluer, model STC-70	1	VOC = 0.0525	7.25
IA-2b	Gammerler gluer, model RS111	1	VOC = 0.0525	
IA-2c	HHS Installation KIT Xmelt gluer, model 45011700	1	VOC = 0.0525	
IA-2d	Accufeed D&K Laminator, model 27-5415	1	VOC = 0.0525	
IA-2f	Kodak platemaker, model MAGNUS 800	1	VOC = 0.0665	
IA-2g	Kodak platemaker, model NE50	1	VOC = 0.0665	

**IA-2 Specific Conditions**

**S1. Standards** (Regulation 2.17, section 5.2)

**a. VOC**

- i. For the above equipment and any new equipment installed, the owner or operator shall limit the VOC emissions to less than or equal to 5.0 tons per 12 consecutive month period total unless a BACT is approved. (Regulation 7.25, section 3.1)
- ii. See Plant-wide Emission Unit.

**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 monitor and maintain records of the quantity used and VOC content of each VOC containing material during each calendar month and consecutive 12-month period.
- ii. The owner or operator shall keep monthly records, including calculations, of all VOC emissions during each calendar month and consecutive 12-month period.
- iii. See Plant-wide Emission Unit.

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

**a. VOC**

- i. For the above listed equipment annual compliance reports shall include the total calendar month and consecutive 12 month VOC emissions for each month in the reporting period.
- ii. See Plant-wide Emission Unit.

**IA-3 Equipment: Parts Washer**

<b>Emission Point</b>	<b>Equipment</b>	<b>Quantity</b>	<b>PTE (tpy)</b>	<b>Applicable Regulations</b>
IA-3	Greymills   PL422A   cold solvent Metal Cleaning   pump with cleaning brush   no conveyor   no secondary reservoir	1	VOC = 0.618	6.18

**IA-3 Specific Conditions****S1. Standards** (Regulation 2.17, section 5.2)**a. VOC**

- i. The owner or operator shall install, maintain, and operate the Greymills cold solvent metal parts washer 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 Specific Condition S1.a.ii. 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. The owner or operator of the Greymills parts washer 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)
- iv. See Plant-wide Emission Unit.

**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 the cold parts washer the owner or operator shall maintain records that include the following for each solvent purchase.
  - 1) The name and address of the solvent supplier,
  - 2) The date of the purchase,
  - 3) The type of the solvent, and
  - 4) The vapor pressure of the solvent measured in mm Hg at 20°C (68°F).
- ii. All records required in Specific Condition S2.a.i shall be retained for 5 years and made available to the District upon request.
- iii. See Plant-wide Emission Unit.

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

**a. VOC**

- i. For the cold parts washer, there are no routine compliance reporting requirements for Regulation 6.18.
- ii. See Plant-wide Emission Unit.

**Source-Wide Activities Not Otherwise Regulated**

<b>Equipment</b>	<b>Quan.</b>	<b>PTE (tpy)</b>	<b>Regulation Basis</b>
Konica Minolta Bizhub 1200 digital printer, model C364E	1	NA	NA
Kodak Nexpress digital printer, model S-3000	1	NA	NA
Kodak Nexpress digital printer, model SE-2500	1	NA	NA
MCS Inc. Faclon Imager ink-jet printer, model 600 Jetmail III	1	NA	NA
MCS Inc. Array inkjet printer, model V3 9870000-821	1	NA	NA
Maintenance soldering equipment (2), maintenance welding equipment (1)	3	Trivial	EPA White Papers
Horizon book binder model BQ-270	1	VOC = 0.000185	NA
Maintenance woodworking equipment	1	PM = 0.084	EPA White Papers

**Fee Comment**

On May 15, 2013, the Board approved revisions to Regulation 2.08, which implemented a new fee structure. As a result, V.G. Reed 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.