



# Department of Environmental Protection

## Division of Air Resource Management



### APPLICATION FOR AIR PERMIT - NON-TITLE V SOURCE

#### DEP FORM No. 62-210.900(3) and INSTRUCTIONS

#### I. APPLICATION INFORMATION

##### Identification of Facility

|   |  |
|---|--|
| 1. <b>Facility Owner/Company Name:</b><br>Trend Offset Printing Services, Inc.  |  |
| 2. <b>Site Name:</b><br>Trend Offset Printing Services, Inc.  |  |
| 3. <b>Facility Identification Number:</b> 0310503   | Unknown <input type="checkbox"/>   |
| 4. <b>Facility Location</b><br>Street Address or Other Locator: 10301 North Busch Drive<br>City: Jacksonville                      County: Duval                      Zip Code: 32218 |  |
| 5. <b>Relocatable Facility?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   | 6. <b>Existing Permitted Facility?</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

##### Application Contact

|   |  |
|---|--|
| 1. <b>Application Contact</b><br>Name: Mr. Bruce Armbruster (JECS, Consultant)      Title: Vice President   |  |
| 2. <b>Application Contact Mailing Address</b><br>Organization/Firm: JE Compliance Services<br>Street Address: 12505 North Mainstreet, Suite 212<br>City: Rancho Cucamonga                      State: CA      Zip Code: 91739 |  |
| 3. <b>Application Contact Telephone Numbers</b><br>Telephone: (909) 483-3300      ext. _____      Fax: (909) 646-9854   |  |
| 4. <b>Application Contact E-mail Address:</b> barmbruster@jecsi.com   |  |

##### Application Processing Information (DEP Use Only)

|   |
|---|
| 1. <b>Date of Receipt of Application:</b> |
| 2. <b>Permit Project Number:</b>          |

100



**Purpose of Application**

**This application for air permit is being submitted to obtain: (Check one)**

**Air Operation Permit Application**

- Initial non-Title V air operation permit for one or more existing, but previously unpermitted, emissions units.
- Initial non-Title V air operation permit for one or more newly constructed or modified emissions units.  
Current construction permit number: \_\_\_\_\_
- Non-Title V air operation permit revision to address one or more newly constructed or modified emissions units.  
Current construction permit number: 0310503-013-AC  
Operation permit number to be revised: 0310503-014-AF
- Initial non-Title V air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.  
Current operation/construction permit number(s):  
\_\_\_\_\_
- Non-Title V air operation permit revision for a synthetic non-Title V source. Give reason for revision; e.g., to address one or more newly constructed or modified emissions units.  
Operation permit number to be revised: \_\_\_\_\_  
Reason for revision: \_\_\_\_\_

**Air Construction Permit Application**

- Air construction permit to construct or modify one or more emissions units.
- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.
- Air construction permit for one or more existing, but unpermitted, emissions units.





**Owner/Authorized Representative**

|   |
|---|
| 1. Name and Title of Owner/Authorized Representative:<br>Jeff O'Brien (General Manager)   |
| 2. Owner/Authorized Representative Mailing Address:<br>Organization/Firm: Trend Offset Printing Services, Inc.<br>Street Address: 10301 North Busch Drive<br>City: Jacksonville State: FL Zip Code: 32218   |
| 3. Owner/Authorized Representative Telephone Numbers:<br>Telephone: (904) 696-8675 Fax: (904) 696-8676  |
| 4. Owner/Authorized Representative E-mail Address:  |
| 5. Owner/Authorized Representative Statement:<br><br><i>I, the undersigned, am the owner or authorized representative* of the facility addressed in this application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.</i><br><br>_____<br>Signature<br><br>10-31-17<br>_____<br>Date |

\* Attach letter of authorization if not currently on file.

**Professional Engineer Certification**

|  |
|--|
| 1. Professional Engineer Name: Veronica N. Sgro, P.E.<br>Registration Number: 69227  |
| 2. Professional Engineer Mailing Address:<br>Organization/Firm: Koogler and Associates, Inc.<br>Street Address: 4014 NW 13 <sup>th</sup> Street<br>City: Gainesville State: FL Zip Code: 32609 |
| 3. Professional Engineer Telephone Numbers:<br>Telephone: (352) 377-5822 Fax: (352) 377-7158   |
| 4. Professional Engineer E-mail Address: vsgr0 @ kooglerassociates.com   |



**5. Professional Engineer Statement:**

*I, the undersigned, hereby certify, except as particularly noted herein\*, that:*

*To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and*

*To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.*

*If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here  if so), I further certify that the engineering features of each such emissions unit described in this application have been ~~designed or~~ examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.*

*If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here  if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.*

Veronica N. Sgro  
Signature

December 19, 2017  
Date

(seal)



\* Attach any exception to certification statement.







**Construction/Modification Information**

**1. Description of Proposed Project or Alterations:**

The application requests for the incorporation of the conditions in permit no. 0310503-013-AC with the conditions in existing permit no. 0310503-014-AF.

**2. Projected or Actual Date of Commencement of Construction:**

**3. Projected Date of Completion of Construction:**

**Application Comment**

Since the emissions unit is not required to measure actual emissions, the permit type is "AO2C", which corresponds to a \$750 processing fee per the fee schedule in Rule 62-4.050, F.A.C.







**Facility Regulatory Classifications**

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions for an explanation of “synthetic.”:

|   |
|---|
| 1. <input type="checkbox"/> Small Business Stationary Source <input type="checkbox"/> Unknown   |
| 2. <input checked="" type="checkbox"/> Synthetic Non-Title V Source   |
| 3. <input checked="" type="checkbox"/> Synthetic Minor Source of Pollutants, Other than Hazardous Air Pollutants (HAPs)               |
| 4. <input checked="" type="checkbox"/> Synthetic Minor Source of HAPs   |
| 5. <input type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)  |
| 6. <input type="checkbox"/> One or More Emission Units Subject to NESHAP (40 CFR Part 61 or Part 63) Recordkeeping or Reporting       |
| 7. <input checked="" type="checkbox"/> Facility Regulatory Classifications Comment (limit to 200 characters):<br><br>See attachments. |

**Rule Applicability Analysis**

|                  |
|------------------|
| See attachments. |
|------------------|







### C. FACILITY SUPPLEMENTAL INFORMATION

#### Supplemental Requirements

|  |
|--|
| <b>1. Area Map Showing Facility Location</b><br><input checked="" type="checkbox"/> Attached, Document ID: Figure 1 <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested                                    |
| <b>2. Facility Plot Plan</b><br><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested   |
| <b>3. Process Flow Diagram(s)</b><br><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested  |
| <b>4. Precautions to Prevent Emissions of Unconfined Particulate Matter</b><br><input checked="" type="checkbox"/> Attached, Document ID: See comment. <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested |
| <b>5. Supplemental Information for Construction Permit Application</b><br><input checked="" type="checkbox"/> Attached, Document ID: Air construction permit no. 0310503-013-AC<br><input type="checkbox"/> Not Applicable               |
| <b>6. Supplemental Requirements Comment:</b><br><br>See attachments. Precautions to Prevent Emissions of Unconfined Particulate Matter is presented in air operation permit no. 0310503-014-AF.  |



**Emissions Unit Information Section 1 of 1**

**III. EMISSIONS UNIT INFORMATION**

A separate Emissions Unit Information Section (including subsections A through G, as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

**A. GENERAL EMISSIONS UNIT INFORMATION**

**Emissions Unit Description and Status**

|   |                                 |   |
|---|---------------------------------|---|
| <b>1. Type of Emissions Unit Addressed in this Section (Check one)</b>  |                                 |   |
| <input checked="" type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent). |                                 |   |
| <input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.              |                                 |   |
| <input type="checkbox"/> This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.   |                                 |   |
| <b>2. Description of Emissions Unit Addressed in this Section (limit to 60 characters):</b><br><br>Heidelberg Harris Mercury Lithographic Offset Non-heatset Printing Press   |                                 |   |
| <b>3. Emissions Unit Identification Number ID:</b> EU006  |                                 | <input type="checkbox"/> No ID<br><input type="checkbox"/> ID Unknown |
| <b>4. Emissions Unit Status Code:</b> A   | <b>5. Initial Startup Date:</b> | <b>6. Emissions Unit Major Group SIC Code:</b> 27                     |
| <b>7. NAICS Code:</b> 323111 - Commercial Gravure Printing  |                                 |   |
| <b>8. Emissions Unit Comment: (Limit to 500 Characters)</b><br><br>Application applies to the new Heidelberg Harris Mercury Non-heatset press, which is associated with EU006.  |                                 |   |



**Emissions Unit Information Section 1 of 1**

**Emissions Unit Control Equipment**

|  |
|--|
| <p>1. <b>Control Equipment/Method Description</b> (limit to 200 characters per device or method):</p> <p>Not applicable.</p> |
| <p>2. <b>Control Device or Method Code(s)</b>: Not applicable.</p>   |

**Emissions Unit Details**

|   |
|---|
| <p>1. <b>Package Unit</b><br/>Manufacturer: Heidelberg Harris                      Model Number: Mercury</p>  |
| <p>2. <b>Generator Nameplate Rating:</b>                      MW</p>  |
| <p>3. <b>Incinerator Information</b></p> <p style="text-align: right;">Dwell Temperature:                      °F</p> <p style="text-align: right;">Dwell Time:                                      seconds</p> <p style="text-align: right;">Afterburner Temperature:                      °F</p> |

**Emissions Unit Operating Capacity and Schedule**

|   |
|---|
| <p>1. <b>Maximum Heat Input Rate:</b> _____ mmBtu/hr</p>  |
| <p>2. <b>Maximum Incineration Rate:</b> _____ lbs/hr _____ tons/day</p>   |
| <p>3. <b>Maximum Process or Throughput Rate:</b></p>  |
| <p>4. <b>Maximum Production Rate:</b></p>   |
| <p>5. <b>Requested Maximum Operating Schedule</b></p> <p style="text-align: right;">hours/day: 24                                      days/week: 7</p> <p style="text-align: right;">weeks/year: 52                                      hours/year: 8,760</p> |
| <p>6. <b>Operating Capacity/Schedule Comment</b> (limit to 200 characters):</p> <p>See attachments.</p>   |



**B. EMISSION POINT (STACK/VENT) INFORMATION**

|   |  |  |
|---|--|--|
| 1. Identification of Point on Plot Plan or Flow Diagram:  |  | 2. Emission Point Type Code: 4             |
| 3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):<br><br>Not applicable. |  |  |
| 4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:   |  |  |
| 5. Discharge Type Code: F   | 6. Stack Height (feet):                | 7. Exit Diameter (feet):                   |
| 8. Exit Temperature (°F): 77  | 9. Actual Volumetric Flow Rate (acfm): | 10. Water Vapor (%):                       |
| 11. Maximum Dry Standard Flow Rate (dscfm):   |  | 12. Nonstack Emission Point Height (feet): |
| 13. Emission Point UTM Coordinates<br>Zone: East (km): North (km):  |  |  |
| 14. Emission Point Comment (limit to 200 characters):   |  |  |



Emissions Unit Information Section 1 of 1

**C. SEGMENT (PROCESS/FUEL) INFORMATION**

**Segment Description and Rate Segment 1 of 3**

|  |                                |  |
|--|--------------------------------|--|
| 1. <b>Segment Description</b> (Process/Fuel Type) (limit to 500 characters):<br><br>Petroleum and Solvent Evaporation → Printing/Publishing → General → Lithographic: 2752 |                                |  |
| 2. <b>Source Classification Code (SCC):</b><br>4-05-004-01   |                                | 3. <b>SCC Units:</b> Tons Ink used             |
| 4. <b>Maximum Hourly Rate:</b>   | 5. <b>Maximum Annual Rate:</b> | 6. <b>Estimated Annual Activity Factor:</b> NA |
| 7. <b>Maximum % Sulfur:</b>  | 8. <b>Maximum % Ash:</b>       | 9. <b>Million Btu per SCC Unit:</b> NA         |
| 10. <b>Segment Comment</b> (limit to 200 characters):<br><br>None.   |                                |  |

**Segment Description and Rate Segment 2 of 3**

|   |                                |   |
|---|--------------------------------|---|
| 1. <b>Segment Description</b> (Process/Fuel Type) (limit to 500 characters):<br><br>Petroleum and Solvent Evaporation → Printing/Publishing → General → Offset Lithography:<br>Cleaning solution: Water based |                                |   |
| 2. <b>Source Classification Code (SCC):</b><br>4-05-004-17  |                                | 3. <b>SCC Units:</b><br>Tons Solvent used   |
| 4. <b>Maximum Hourly Rate:</b>  | 5. <b>Maximum Annual Rate:</b> | 6. <b>Estimated Annual Activity Factor:</b> |
| 7. <b>Maximum % Sulfur:</b>   | 8. <b>Maximum % Ash:</b>       | 9. <b>Million Btu per SCC Unit:</b>         |
| 10. <b>Segment Comment</b> (limit to 200 characters):<br><br>None.  |                                |   |



**Emissions Unit Information Section 1 of 1**

**Segment Description and Rate Segment 3 of 3**

|   |                                |  |
|---|--------------------------------|--|
| <b>1. Segment Description</b> (Process/Fuel Type) (limit to 500 characters):<br><br>Petroleum and Solvent Evaporation → Printing/Publishing → General → Ink Thinning<br>Solvent: Other not Classified |                                |  |
| <b>2. Source Classification Code (SCC):</b><br>4-05-005-98  |                                | <b>3. SCC Units:</b><br>1000 Gallons Solvent |
| <b>4. Maximum Hourly Rate:</b>  | <b>5. Maximum Annual Rate:</b> | <b>6. Estimated Annual Activity Factor:</b>  |
| <b>7. Maximum % Sulfur:</b>   | <b>8. Maximum % Ash:</b>       | <b>9. Million Btu per SCC Unit:</b>          |
| <b>10. Segment Comment</b> (limit to 200 characters):<br><br>None.  |                                |  |







**Emissions Unit Information Section 1 of 1**

**D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION**

**Potential Emissions**

|   |                                     |   |  |
|---|-------------------------------------|---|--|
| 1. <b>Pollutant Emitted:</b> HAPS   |                                     | 2. <b>Pollutant Regulatory Code:</b> EL   |  |
| 3. <b>Primary Control Device:</b> NA  | 4. <b>Secondary Control Device:</b> | 5. <b>Total Percent Efficiency of Control:</b>  |  |
| 6. <b>Potential Emissions</b><br>_____ lbs/hour                      <10/25 tons/year               |                                     | 7. <b>Synthetically-Limited?</b><br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |  |
| 8. <b>Emission Factor:</b><br>Reference: See attachments.   |                                     | 9. <b>Emissions Method Code:</b><br>1   |  |
| 10. <b>Calculation of Emissions</b> (limit to 600 characters):<br><br>See attachments.              |                                     |   |  |
| 11. <b>Pollutant Potential Emissions Comment</b> (limit to 200 characters):<br><br>See attachments. |                                     |   |  |

**Allowable Emissions Numerical Emissions Limitation 1 of 1**

|   |   |  |  |
|---|---|--|--|
| 1. <b>Basis for Numerical Emissions Limitation Code:</b> ESCTIII  | 2. <b>Future Effective Date of Numerical Emissions Limitation:</b>                |  |  |
| 3. <b>Numerical Emissions Limitation and Units:</b> <10/25 tons/year  | 4. <b>Equivalent Allowable Emissions:</b><br>_____ lbs/hour      <10/25 tons/year |  |  |
| 5. <b>Method of Compliance</b> (limit to 60 characters): Monthly Recordkeeping.   |   |  |  |
| 6. <b>Allowable Emissions Comment</b> (Description of Operating Method) (limit to 200 characters):<br><br><10 TPY of any individual HAP and <25 TPY for total HAPs. |   |  |  |



**Emissions Unit Information Section 1 of 1**

**E. VISIBLE EMISSIONS INFORMATION  
(Only Emissions Units Subject to a VE Limitation)**

**Visible Emissions Limitation** Visible Emissions Limitation 1 of 1

|   |  |
|---|--|
| 1. <b>Visible Emissions Subtype:</b> VE20   | 2. <b>Basis for Limitation:</b><br><input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other |
| 3. <b>Opacity Limit</b><br>Normal Conditions: 20%                      Exceptional Conditions: 20%<br>Maximum Period of Excess Opacity Allowed:                      min/hour |  |
| 4. <b>Method of Compliance:</b> EPA Method 9  |  |
| 5. <b>Visible Emissions Comment</b> (limit to 200 characters):  |  |

**F. CONTINUOUS MONITOR INFORMATION  
(Only Emissions Units Subject to Continuous Monitoring)**

**Continuous Monitoring System** Continuous Monitor NA of NA

|   |  |
|---|--|
| 1. <b>Parameter Code:</b>   | 2. <b>Pollutant(s):</b>                        |
| 3. <b>CMS Requirement:</b>  |  |
| 4. <b>Monitor Manufacturer:</b> _____<br><b>Model Number:</b> _____ <b>Serial Number:</b> _____ |  |
| 5. <b>Installation Date:</b>  | 6. <b>Performance Specification Test Date:</b> |
| 7. <b>Continuous Monitor Comment</b> (limit to 200 characters):                                 |  |



**G. EMISSIONS UNIT SUPPLEMENTAL INFORMATION**

**Supplemental Requirements**

|  |
|--|
| <p><b>1. Process Flow Diagram</b></p> <p><input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> Waiver Requested</p>  |
| <p><b>2. Fuel Analysis or Specification</b></p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>                                    |
| <p><b>3. Detailed Description of Control Equipment</b></p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>                         |
| <p><b>4. Description of Stack Sampling Facilities</b></p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>                          |
| <p><b>5. Compliance Test Report</b></p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input checked="" type="checkbox"/> Previously submitted, Date: <u>08/21/2017</u></p> <p><input type="checkbox"/> Not Applicable</p> |
| <p><b>6. Procedures for Startup and Shutdown</b></p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>                               |
| <p><b>7. Operation and Maintenance Plan</b></p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested</p>                                    |
| <p><b>8. Supplemental Information for Construction Permit Application</b></p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>  |
| <p><b>9. Other Information Required by Rule or Statute</b></p> <p><input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable</p>   |
| <p><b>10. Supplemental Requirements Comment:</b></p><br><br><br><br><br><br><br><br><br><br>   |



Figure 1 – Facility Area Map



|  |              |      |
|--|--------------|------|
| Trend Offset Printing Services, Inc.<br>10301 Busch Drive<br>Jacksonville, Florida | Site Map     |      |
|  | DWG-1401491S |      |
| JE Compliance Services, Inc.   | Figure 1     | Page |



Hope this will help. Grom

**Exhibit A**

- 4-1995 vintage MEG DCA splicers 40" width, 50" dia. Capacity 2000fpm with 8 pneumatic roll shafts
- 4-2004 vintage Heidelberg Harris Mercury print units consisting of 2-2high towers  
40" width, 630mm cutoff. Serial #N-300227-1 through 4. Circa 8,140,000 total impressions
- 1-1995 JF-35 folder with Double Parallel option. Pre folder to include 4 manual web compensators
- 1-Heidelberg Harris operator console with manual remote register control, remote delivery control, auto press function control, press counters, web washer control, Harris telecolor II remote ink control.
- 1-Harris manual plate bender
- 1-Baldwin fountain solution tank with filter box
- 1-Baldwin Mod.270 auto-mix fountain solution mixer
- 1-Techniweb 4 web web washer system
- 1-5hp Lamson LPA with heat exchanger cooler
- 1-100hp GE Kinamatic dc drive motor
- 1-Harris wire termination cabinet
- 1-Harris press drive cabinet w/GE circuit breaker panel and 3 dry type electrical transformers.
- 1-complete delivery stacking line to include:
  - 3Rota Schneider FB Anlage double conveyors
  - 2Rota Schneider straight conveyors
  - 1Rota Schneider S'1540 center trimmer
  - 2Rota Schneider RS-2VS edge trimmers
  - 1Rota Schneider RS-2M edge trimmer
  - 1 1700mm conveyor
  - 1 Baldwin 128 Stack O veyor
  - 1 Rima Systems Model RS-2510SN stacker
- Complete cabling for power and press trim
- All press operating and spare parts manuals, wire run prints, machine blueprints, and back up
- Discs of drive parameters and plc as available.

Spare parts package to include 13 crates containing; 22 new rubber inking rollers, 2 chrome water vibrator rollers, 2 chrome water pan rollers, 4 knurled ink meter rollers, 3 path rollers w/mounting tree, 8 new splicer roll shafts, 1 new folder drive belt, 1 RTF roller, 4 reduction gear boxes, 2 stationary jaw segments-half fold, 3 sets bevel drive gears, 6 ink fountain ball rollers, 2 ink fountain blades, 1 complete set of cylinder bearing boxes, 10 pcs of wireway, 4 drive gear bearings, 4 ink ball bearings, 2 unit drive oil seals, 4 pieces of folder cylinder body segments, 4 unit wiring harnesses, 6 Rotadync ink forms. Whatever spares we are able to obtain are included.



Example 15.4-1

## Part A:

A print shop using a sheetfed lithography process reports the following material usage:

| Material                          | Annual Use | Unit | VOC Content<br>(Percent by weight or lb/gal) | HAP Content<br>(% by VOC weight or lb/gal)                       |
|-----------------------------------|------------|------|--|--|
| Ink                               | 19,000     | lb   | 35%  | 0%   |
| Fountain Solution:<br>Concentrate | 300        | gal  | 1.85 lb/gal                                  | Ethylene Glycol, 100%  |
| Fountain Solution:<br>Additive    | 100        | gal  | 4.5 lb/gal                                   | 2-Butoxyethanol, 82%<br>Ethylene Glycol, 18%                     |
| Automatic Blanket<br>Wash         | 7,750      | gal  | 0.8 lb/gal                                   | Naphthalene,<br>0.296 lb/gal<br>2-Butoxyethanol,<br>0.144 lb/gal |
| Cleaning Solution                 | 2,212.5    | gal  | 0.8 lb/gal                                   | Naphthalene, 0.16<br>lb/gal                                      |
| Coating: UV                       | 1,530      | lb   | 2%   | 0%   |
| Coating: Conventional             | 6,003      | lb   | 35%  | 0%   |

No control devices are in place for this particular facility. According to the ACT (EPA, 1994a), it can be assumed that 95 percent of the ink and conventional coating (i.e., varnish) VOC is retained in the substrate. A 50% retention factor is assumed for cleaning solutions, since soiled towels are kept in a closed container and have a vapor pressure of less than 10 mmHg at 20°C. Therefore, the emissions can be calculated as described below.

**Ink Emissions**

With no control device in place, VOC emissions are calculated using equation 15.4-2.

$$\begin{aligned}
 E_{\text{VOC}}(\text{ink}) &= U * (W/100) * (1 - R/100) \\
 &= (19,000 \text{ lb/year}) * (35/100) * (1-95/100) \\
 &= 332.5 \text{ lb VOC/year from ink usage}
 \end{aligned}$$

Note: In this example, the ink is 0% HAP by weight, therefore, no HAPs are emitted from the ink.



**Example 15.4-1 (Continued)****Fountain Solution Emissions**

With no control device in place, VOC and HAP emissions are calculated using equation 15.4-2.

$$\begin{aligned}
 E_{\text{VOC}} (\text{Concentrate}) &= U * (W/100) * (1 - R/100) \\
 &= (300 \text{ gal/year}) * (1.85 \text{ lb/gal}) * (1 - 0/100) \\
 &= 555 \text{ lb VOC/year from fountain solution concentrate usage}
 \end{aligned}$$

$$\begin{aligned}
 E_{\text{VOC}} (\text{Additive}) &= U * (W/100) * (1 - R/100) \\
 &= (100 \text{ gal/year}) * (4.5 \text{ lb/gal}) * (1 - 0/100) \\
 &= 450 \text{ lb VOC/year from fountain solution additive usage}
 \end{aligned}$$

$$\begin{aligned}
 E_{\text{VOC}} (\text{Total, Fountain Solution}) &= E_{\text{VOC}} (\text{Concentrate}) + E_{\text{VOC}} (\text{Additive}) \\
 &= 555 \text{ lb VOC/year} + 450 \text{ lb VOC/year} \\
 &= 1055 \text{ lb VOC/year}
 \end{aligned}$$

$$\begin{aligned}
 E_{\text{HAP}} (\text{Concentrate}) &= U * (W/100) * (1 - R/100) \\
 &= (300 \text{ gal/year}) * (1.85 \text{ lb/gal}) * (1 - 0/100) \\
 &= 555 \text{ lb HAP}
 \end{aligned}$$

$$\begin{aligned}
 E_{\text{HAP}} (\text{Additive}) &= U * (W/100) * (1 - R/100) \\
 &= (100 \text{ gal/year}) * 4.50 * ((82+18)/100) * (1 - 0/100) \\
 &= 450 \text{ lb HAP}
 \end{aligned}$$

$$\begin{aligned}
 E_{\text{HAP}} (\text{Total, Fountain Solution}) &= E_{\text{HAP}} (\text{Concentrate}) + E_{\text{HAP}} (\text{Additive}) \\
 &= 555 \text{ lb} + 450 \text{ lb HAP/year} \\
 &= 1050 \text{ lb HAP/year}
 \end{aligned}$$

**Cleaning Solution Emissions**

With no control device in place, VOC and HAP emissions are calculated using equation 15.4-2.

$$\begin{aligned}
 E_{\text{VOC}} (\text{Automatic Blanket Wash}) &= G * C * (1 - R/100) \\
 &= (7,750 \text{ lb/year}) * (0.8) * (1 - 0/100) \\
 &= 6,200 \text{ lb VOC/year}
 \end{aligned}$$



**Example 15.4-1 (Continued)**

$$\begin{aligned}
 E_{\text{VOC}} (\text{Cleaning Solutions}) &= G * C * (1 - R/100) \\
 &= (2,212.5) * (0.8) * (1-50/100) \\
 &= 885 \text{ lb VOC/year}
 \end{aligned}$$

$$\begin{aligned}
 E_{\text{VOC}} (\text{Total, Cleaning Solutions}) &= E_{\text{VOC}} (\text{Automatic Blanket Wash}) + E_{\text{VOC}} (\text{Hand Cleaning Solutions}) \\
 &= 6,200 \text{ lb VOC/year} + 885 \text{ lb VOC/year} \\
 &= 7,085 \text{ lb VOC/year}
 \end{aligned}$$

$$\begin{aligned}
 E_{\text{HAP}} (\text{Automatic Blanket Wash}) &= G * C * (1 - R/100) \\
 &= (7,750) * (0.296 + 0.144) * (1 - 0/100) \\
 &= 3,410 \text{ lb HAP/year}
 \end{aligned}$$

$$\begin{aligned}
 E_{\text{HAP}} (\text{Cleaning Solutions}) &= G * C * (1 - R/100) \\
 &= (2,212.5) * (0.16) * (1-50/100) \\
 &= 177 \text{ lb HAP/year}
 \end{aligned}$$

$$\begin{aligned}
 E_{\text{HAP}} (\text{Total, Cleaning Solution}) &= E_{\text{HAP}} (\text{Automatic Blanket Wash}) + E_{\text{HAP}} (\text{Hand Cleaning Solutions}) \\
 &= 3,410 (\text{lb HAP/year}) + 177 (\text{lb HAP/year}) \\
 &= 3,587 \text{ lb HAP/year}
 \end{aligned}$$

**Coating Emissions**

With no control device in place, VOC emissions are calculated using equation 15.4-2.

$$\begin{aligned}
 E_{\text{VOC}} (\text{UV Coating}) &= U * (W/100) * (1 - R/100) \\
 &= (1,530 \text{ lb/year}) * (2/100) * (1-0/100) \\
 &= 31 \text{ lb VOC/year}
 \end{aligned}$$

$$\begin{aligned}
 E_{\text{VOC}} (\text{Conventional Coating}) &= U * (W/100) * (1 - R/100) \\
 &= (6,003 \text{ lb/year}) * (35/100) * (1-95/100) \\
 &= 105 \text{ lb VOC/year}
 \end{aligned}$$

$$\begin{aligned}
 E_{\text{VOC}} (\text{Total, Coating}) &= E_{\text{VOC}} (\text{UV Coating}) + E_{\text{VOC}} (\text{Conventional Coating}) \\
 &= 31 \text{ lb VOC/year} + 105 \text{ lb VOC/year} \\
 &= 136 \text{ lb VOC/year}
 \end{aligned}$$



**Example 15.4-1 (Continued)**

Note: In this example, the coatings are 0 percent HAP by weight, therefore, no HAPs are emitted.

**Facility Totals**

Total HAP and VOC emissions for this facility are then calculated using equation 15.4-3.

$$E_{\text{total}} = E_{\text{ink}} + E_{\text{fountain solutions}} + E_{\text{cleaning solutions}} + E_{\text{coating}}$$

$$\begin{aligned} E_{\text{VOC}} &= 332.5 \text{ lb VOC/year} + 1050 \text{ lb VOC/year} + 7,085 \text{ lb VOC/year} + \\ &136 \text{ lb VOC/year} \\ &= 8,603.5 \text{ lb VOC/year} \end{aligned}$$

$$\begin{aligned} E_{\text{HAP}} &= 0 \text{ lb HAP/year} + 1050 \text{ lb HAP/year} + 3,587 \text{ lb HAP/year} + \\ &0 \text{ lb HAP/year} \\ &= 4,637 \text{ lb HAP/year} \end{aligned}$$



# VOC Emission Calculation Methodology for Lithographic Printing Operations – December 2011

---

The following methodology should be used to calculate VOC emissions from lithographic printing operations. This methodology has been developed by the District in cooperation with the Printing Industries Association.

## Lithographic Inks

$$\text{Emissions} = Q * [ \text{VOC} * (1 - \text{RF}) ] * (1 - \text{COVERALL}) \quad \text{Eq. (1)}$$

where:

- Emissions = Emissions of volatile organic compounds (lbs)
- Q = Quantity of ink applied (lbs)
- VOC <sup>(1)</sup> = Volatile Organic content (weight fraction or lb/lb) of ink
- RF <sup>(2)</sup> = Retention factor for the lithographic oil content in inks (decimal)
- COVERALL <sup>(3)</sup> = Control System Overall Efficiency (decimal)

- (1) User may refer to the product Material Safety Data Sheet (MSDS) to determine the volatile organic compounds (VOC) content of the ink. This may include, but not limit to, one or more of the following:

- Volatile organic compounds (VOC)
- Lithographic oil content (LOC) such as:
  - Petroleum-based oils
  - Vegetable-based oils
  - Oxidizing oils
  - Middle distillates
  - Linseed oil
  - White mineral oil
  - Other oils

If MSDS provides both VOC and LOC percentages or fractions, use the higher number for calculation purposes. **NOTE:** Unit of VOC must be consistent with that of ink applied (Q), i.e., VOC in weight fraction of lb/lb for Q in pounds.



(2) Depending on type of inks, the following retention factors are applicable for equation (1):

**HEATSET INKS:                      RF = 0.20**

**NON-HEATSET INKS:                RF = 0.95**

(3) Overall efficiency ( $C_{\text{OVERALL}}$ ) of a control system is defined as:

|   |
|---|
| $C_{\text{OVERALL}} = C_{\text{CAP}} \times C_{\text{DES}} \qquad \text{Eq. (2)}$ |
|---|

where:

$C_{\text{CAP}}$  = Capture Efficiency of Control System (fraction)

$C_{\text{DES}}$  = Destruction Efficiency of Control Equipment (fraction)

In general, control system performance is tested to determine these efficiencies. In the absence of specific source test results, a default capture efficiency of 99.5% ( $CP = 0.995$ ) is allowed for **heatset inks only**. Any deviation from this default value must be substantiated with supporting documentation.

## **HOW TO REPORT**

- From the drop lists, select or provide **Material and Device Description, Material Code, and Activity Code**.
- **Annual Material Usage:** Enter total quantity of lithographic inks used ( $Q$  in **pounds**) during the reporting period. If needed, convert  $Q$  from gallons to pounds by multiplying  $Q$  (in gallons) by the ink density (lb/gal).
- **Units:** From drop list – Select **pound**
- **Rule Number:** Enter **1130**
- **Application Numbers:** Enter applicable permit application number/s.
- **TAC / ODC:** Put check mark **ONLY IF** material contains TAC/ODC.
- **Overall Control Efficiency:** Use equation (2) above to determine the Overall Control Efficiency and enter **in decimal** number. Enter zero (0.00) if Form B3U is used.
- **Emission Factor:**
  - ❖ If using default emission factor, check the box marked “Use Default Emission Factors”. Default emission factors for lithographic inks are available in **HELP and SUPPORT** (under Forms and Factors)
  - ❖ The non-default emission factor can be determined as follows:
    - **VOC:** From ink MSDS, find organic content based on VOC or lithographic oil content (LOC) in weight fraction or lb/lb. If MSDS provides both VOC and LOC



percentages or fractions, use the higher number. If VOC is given in lb/gal, then convert VOC from lb/gal to lb/lb by dividing VOC (lb/gal) by the ink density (lb/gal).

- Determine the applicable retention factor, **RF** (RF = 0.95 for non-heatset inks or RF = 0.20 for heatset inks).
- Emission Factor = [VOC \* (1 – RF)]
- Enter the calculated emission factor and click “**ADD RECORDS**” to save your entries.

## Assumptions for Other Lithographic Printing Ink Operations

**Fountain solutions and blanket/roller washes** do not possess the same characteristics as lithographic inks; therefore, retention factors are not applicable to emissions from the use of these materials. However, in the absence of a specific source test, a carry-over factor is allowed as follows:

- ◆ 70% of emissions from **fountain solution** is allowed to carry-over into the **heat set dryer**, provided that the dryer is vented into the afterburner. The VOC emissions from the use of fountain solutions ( $E_{\text{FOUNTAIN}}$ ) is calculated using the following equation:

$$E_{\text{FOUNTAIN}} = Q * \text{VOC} * [1 - (0.70 * C_{\text{OVERALL}})] \quad \text{Eq. (3)}$$

- ◆ 40% of emissions from **blanket/roller washes** is allowed to carry-over into the **heat set dryers only** for **automatic wash operations** provided that the dryer is vented into the afterburner. The VOC emissions from the use of blanket/roller washes ( $E_{\text{WASH}}$ ) is calculated using the following equation:

$$E_{\text{WASH}} = Q * \text{VOC} * [1 - (0.40 * C_{\text{OVERALL}})] \quad \text{Eq. (4)}$$

where:

- $E_{\text{FOUNTAIN}}$  = Emissions of volatile organic compound (lbs)
- $E_{\text{WASH}}$  = Volatile organic compound emission of blanket/roller washes (lbs)
- Q = Quantity of material applied (lbs or gallons)
- VOC = Organic compound content (lb/lb or lb/gal)
- $C_{\text{OVERALL}}$  = Control System Overall Efficiency (decimal)



## **HOW TO REPORT**

- From the drop lists, select or provide **Material and Device Description, Material Code, and Activity Code**.
- **Annual Material Usage:** Enter total quantity of material used (Q) during the reporting period.
- **Units:** Select a unit from drop list – **pound or gallon**
- **Rule Number:** Enter **1171**
- **Application Numbers:** Enter applicable permit application number(s).
- **TAC / ODC:** Put check mark **ONLY IF** material contains TAC/ODC
- **Overall Control Efficiency:** Use equation (2) above to determine the Overall Control Efficiency and enter **in decimal** number. Enter zero (0.00) if Form B3U is used. Determine the applicable carry-over factor (0.70 for fountain solution and 0.40 for automatic blankets/rollers washes).
  - Final Overall Control Efficiency = Carry-Over factor \* C<sub>OVERALL</sub>
- **Emission Factor:** User can refer to the product Material Safety Data Sheet (MSDS) to determine the content of VOC. **NOTE:** Unit of VOC content must be consistent with that of material applied (Q), i.e., VOC in weight fraction or lb/lb for Q in pounds and VOC in lb/gal for Q in gallons.
- Enter the calculated overall control efficiency and emission factor and click “**ADD RECORDS**” to save your entries.



**VISIBLE EMISSION OBSERVATIONS**

Heidelberg Harris Mercury Lithographic Non Heat-set  
Printing Press (EU-006)

**TREND OFFSET PRINTING SERVICES, INC.**  
Jacksonville, Florida

Permit No.: 0310503-013-AC

Test Date: August 10, 2017  
Report Date: August 21, 2017

651-17-01





**VISIBLE EMISSION OBSERVATIONS**

Heidelberg Harris Mercury Lithographic Non Heat-set Printing Press (EU-006)

**TREND OFFSET PRINTING SERVICES, INC.**  
Jacksonville, Florida

Permit No. 0310503-013-AC

Test Date: August 10, 2017  
Report Date: August 21, 2017

*Koogler and Associates, Inc.*  
4014 N.W. 13<sup>th</sup> Street  
Gainesville, Florida 32609-1923  
352-377-5822

651-17-01



**VISIBLE EMISSION OBSERVATIONS**

Heidelberg Harris Mercury Lithographic Non Heat-set Printing Press (EU-006)

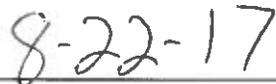
**TREND OFFSET PRINTING SERVICES, INC.**  
Jacksonville, Florida

Permit No.: 0310503-013-AC

Test Dates: August 10, 2017  
Report Date: August 21, 2017

**Responsible Official Certification:**

I certify that, based upon information and belief formed after reasonable inquiry, the statements and information in the attached documents are true, accurate and complete.

|   |   |
|---|---|
|  |  |
| Signature   | Date  |

Tim Cummiskey/Environmental Health & Safety

Printed Name / Title

651-17-01



# Table of Contents

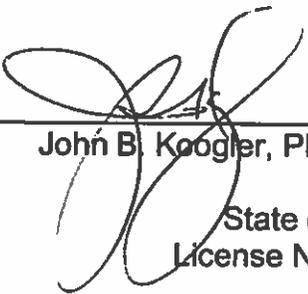
|     |                           |   |
|-----|---------------------------|---|
| 1.0 | INTRODUCTION.....         | 1 |
| 2.0 | NOTIFICATION.....         | 2 |
| 3.0 | PLANT OPERATING DATA..... | 2 |
| 4.0 | SUMMARY.....              | 2 |

## **APPENDICES**

- A. Calculations
- B. Field Data Sheets
- C. Plant Operating Data
- D. Project Participants



To the best of my knowledge, all applicable field and analytical procedures comply with the Florida Department of Environmental Protection requirements and all test data and plant operating data are true and correct.



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John B. Koogler, Ph.D., P.E.

State of Florida  
License No. 12925

8-21-2017  
Date





## 1.0 INTRODUCTION

Trend Offset Printing Services, Inc. (Trend) operates a lithographic offset printing facility located at 10301 Busch Drive in Jacksonville, Florida. The facility is permitted as a non-Title V facility under Air Permit Nos. 0310503-014-AF and 0310503-013-AC, issued by the Environmental Quality Division of the Environmental and Compliance Department, City of Jacksonville.

The facility currently operates four heat-set lithographic printing presses and one non heat-set lithographic printing press. The facility consists of the following emissions units: (EU-001) the Heidelberg Web Systems M600 Lithographic Heat-set Printing Press, (EU-003) the Heidelberg Web Systems V30 Lithographic Non Heat-set Printing Press, and (EU-005) which consist of the Goss International Lithographic Heat-set Printing Press M600, the Heidelberg Web Systems Lithographic Heat-set Printing Press 8 and the Heidelberg Lithographic Heat-set Printing Press M600.

Permit No. 0310503-013-AC is for the construction of a Heidelberg Harris Mercury Lithographic Non Heat-set Printing Press and a modification to a single facility wide VOC emission limitation of less than 100 tons/year. The new Heidelberg Harris Mercury Lithographic Non Heat-set Printing Press (EU-006) has no control device. The hours of operation are not restricted (8760 hours per year). Visible emissions



are limited to less than 20% opacity. The maximum printing process rate is limited to 610 lbs/hr of ink, 1 gal/hr of blanket wash, and 1 gal/h of fountain solution. There is a facility-wide VOC limitation of less than 100 tons/yr and applies to Emission Unit Nos. 001, 003, 005 and 006.

## **2.0 NOTIFICATION**

Initial compliance testing was conducted on EU-006 on August 10, 2017 by Koogler and Associates Inc. of Gainesville, Florida. Prior to the test date, the Environmental Quality Division of the City of Jacksonville was notified of the test schedule and test protocol.

## **3.0 PLANT OPERATING DATA**

During the test period, (EU-006) Heidelberg Harris Mercury Lithographic Non Heat-set Printing Press processed 23 pounds per hour of ink, 0.1 gallon per hour of blanket wash, and .05 gallons per hour of fountain solution.

## **4.0 SUMMARY**

The initial visible emissions observation was conducted for a 30-minute period on (EU-006) in accordance with EPA Method 9 as described in 40 CFR 60, Appendix A. Permit No. 0310503-013-AC limits the opacity of emissions to less than 20



percent opacity. There were no visible emissions observed during the 30-minute test period.

Based upon the data reported herein, it can be concluded that EU-006 was operating in compliance with permit conditions during the August 10, 2017 period of testing.



**A. Calculations**

**B. Field Data Sheets**

**C. Plant Operating Data**

**D. Project Participants**

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**KOGLER & ASSOCIATES, INC.**  
*ENVIRONMENTAL SERVICES*



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KOGLER & ASSOCIATES, INC.

*ENVIRONMENTAL SERVICES*



KOGLER AND ASSOCIATES, ENVIRONMENTAL SERVICES  
 SUMMARY OF 30 MINUTE VISIBLE EMISSIONS

PLANT : Trend Offset Printing  
 SOURCE: EU 006  
 DATE : 08-10-2017 PROJECT No: 651-17-01  
 TIME START: 14:00  
 TIME FINISH: 14:30

RESULTS:

AVERAGE OPACITY = 0.0 %  
 MAXIMUM OPACITY = 0.0 %  
 HIGHEST SIX-MINUTE ROLLING AVERAGE = 0.0 %

OBSERVATIONS:

| SECONDS | 0           | 15 | 30 | 45 |
|---------|-------------|----|----|----|
| MINUTES | OPACITY (%) |    |    |    |
| 1       | 0           | 0  | 0  | 0  |
| 2       | 0           | 0  | 0  | 0  |
| 3       | 0           | 0  | 0  | 0  |
| 4       | 0           | 0  | 0  | 0  |
| 5       | 0           | 0  | 0  | 0  |
| 6       | 0           | 0  | 0  | 0  |
| 7       | 0           | 0  | 0  | 0  |
| 8       | 0           | 0  | 0  | 0  |
| 9       | 0           | 0  | 0  | 0  |
| 10      | 0           | 0  | 0  | 0  |
| 11      | 0           | 0  | 0  | 0  |
| 12      | 0           | 0  | 0  | 0  |
| 13      | 0           | 0  | 0  | 0  |
| 14      | 0           | 0  | 0  | 0  |
| 15      | 0           | 0  | 0  | 0  |
| 16      | 0           | 0  | 0  | 0  |
| 17      | 0           | 0  | 0  | 0  |
| 18      | 0           | 0  | 0  | 0  |
| 19      | 0           | 0  | 0  | 0  |
| 20      | 0           | 0  | 0  | 0  |
| 21      | 0           | 0  | 0  | 0  |
| 22      | 0           | 0  | 0  | 0  |
| 23      | 0           | 0  | 0  | 0  |
| 24      | 0           | 0  | 0  | 0  |
| 25      | 0           | 0  | 0  | 0  |
| 26      | 0           | 0  | 0  | 0  |
| 27      | 0           | 0  | 0  | 0  |
| 28      | 0           | 0  | 0  | 0  |
| 29      | 0           | 0  | 0  | 0  |
| 30      | 0           | 0  | 0  | 0  |



KOGLER AND ASSOCIATES, ENVIRONMENTAL SERVICES  
 SUMMARY OF 30 MINUTE VISIBLE EMISSIONS

PLANT : Trend Offset Printing  
 SOURCE: EU 006  
 DATE : 08-10-2017 PROJECT No: 651-17-01  
 TIME START: 14:00  
 TIME FINISH: 14:30

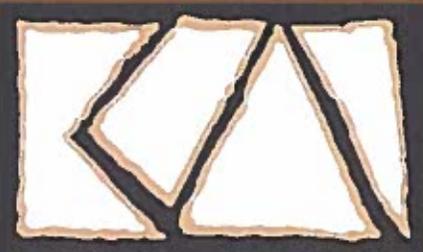
CALCULATIONS:

|    | SIX-MINUTE ROLLING AVERAGES OF VISIBLE EMISSIONS |     |     |     |
|----|--|-----|-----|-----|
| 1  | -  | -   | -   | -   |
| 2  | -  | -   | -   | -   |
| 3  | -  | -   | -   | -   |
| 4  | -  | -   | -   | -   |
| 5  | -  | -   | -   | -   |
| 6  | -  | -   | -   | 0.0 |
| 7  | 0.0  | 0.0 | 0.0 | 0.0 |
| 8  | 0.0  | 0.0 | 0.0 | 0.0 |
| 9  | 0.0  | 0.0 | 0.0 | 0.0 |
| 10 | 0.0  | 0.0 | 0.0 | 0.0 |
| 11 | 0.0  | 0.0 | 0.0 | 0.0 |
| 12 | 0.0  | 0.0 | 0.0 | 0.0 |
| 13 | 0.0  | 0.0 | 0.0 | 0.0 |
| 14 | 0.0  | 0.0 | 0.0 | 0.0 |
| 15 | 0.0  | 0.0 | 0.0 | 0.0 |
| 16 | 0.0  | 0.0 | 0.0 | 0.0 |
| 17 | 0.0  | 0.0 | 0.0 | 0.0 |
| 18 | 0.0  | 0.0 | 0.0 | 0.0 |
| 19 | 0.0  | 0.0 | 0.0 | 0.0 |
| 20 | 0.0  | 0.0 | 0.0 | 0.0 |
| 21 | 0.0  | 0.0 | 0.0 | 0.0 |
| 22 | 0.0  | 0.0 | 0.0 | 0.0 |
| 23 | 0.0  | 0.0 | 0.0 | 0.0 |
| 24 | 0.0  | 0.0 | 0.0 | 0.0 |
| 25 | 0.0  | 0.0 | 0.0 | 0.0 |
| 26 | 0.0  | 0.0 | 0.0 | 0.0 |
| 27 | 0.0  | 0.0 | 0.0 | 0.0 |
| 28 | 0.0  | 0.0 | 0.0 | 0.0 |
| 29 | 0.0  | 0.0 | 0.0 | 0.0 |
| 30 | 0.0  | 0.0 | 0.0 | 0.0 |



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KOGLER & ASSOCIATES, INC.  
*ENVIRONMENTAL SERVICES*



|   |  |
|---|--|
| SOURCE NAME<br>Trend Offset Printing  |  |
| ADDRESS<br>10301 Busch Drive  |  |
| Project ID:<br>651-17-01  |  |
| CITY<br>Jacksonville  | STATE FL ZIP 32218   |
| PHONE<br>904-696-8645   | SOURCE ID NUMBER EU 006  |
| PROCESS EQUIPMENT<br>NON-HEAT SET PRESS   | OPERATING MODE<br>NORMAL   |
| CONTROL EQUIPMENT<br>NA   | OPERATING MODE<br>NA   |
| DESCRIBE EMISSION POINT<br>START AREA AROUND & ABOVE PRESS STOP                                     |  |
| HEIGHT ABOVE GROUND LEVEL<br>START 6'-20" STOP 0'-20" HEIGHT RELATIVE TO OBSERVER<br>START " STOP " |  |
| DISTANCE FROM OBSERVER<br>START 25' STOP 25' DIRECTION FROM OBSERVER<br>START 190° STOP 190°        |  |
| DESCRIBE EMISSIONS<br>START NONE STOP NONE  |  |
| EMISSION COLOR<br>START NA STOP NA  | PLUME TYPE: CONTINUOUS <input type="checkbox"/><br>FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/> |
| WATER DROPLETS PRESENT:<br>NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>      | IF WATER DROPLET PLUME:<br>ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>                             |
| POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED<br>START NA STOP NA                              |  |
| DESCRIBE BACKGROUND<br>START STRUCTURE STOP STRUCTURE   |  |
| BACKGROUND COLOR<br>START TAN/LIGHT STOP NA   | SKY CONDITIONS<br>START NA STOP NA   |
| WIND SPEED<br>START NA STOP NA  | WIND DIRECTION<br>START NA STOP NA   |
| AMBIENT TEMP:<br>START 87° STOP 87°   | WET BULB TEMP 73° RH.percent 59%   |
|   |  |
| COMMENTS<br>INDOOR TESTING LOCATION   |  |

| OBSERVATION DATE |   | START TIME |    | STOP TIME | COMMENTS |
|------------------|---|------------|----|-----------|----------|
| 8-10-2017        |   | 14:00      |    | 14:30     |          |
| SEC MIN          | 0 | 15         | 30 | 45        |          |
| 1                | 0 | 0          | 0  | 0         |          |
| 2                | 0 | 0          | 0  | 0         |          |
| 3                | 0 | 0          | 0  | 0         |          |
| 4                | 0 | 0          | 0  | 0         |          |
| 5                | 0 | 0          | 0  | 0         |          |
| 6                | 0 | 0          | 0  | 0         |          |
| 7                | 0 | 0          | 0  | 0         |          |
| 8                | 0 | 0          | 0  | 0         |          |
| 9                | 0 | 0          | 0  | 0         |          |
| 10               | 0 | 0          | 0  | 0         |          |
| 11               | 0 | 0          | 0  | 0         |          |
| 12               | 0 | 0          | 0  | 0         |          |
| 13               | 0 | 0          | 0  | 0         |          |
| 14               | 0 | 0          | 0  | 0         |          |
| 15               | 0 | 0          | 0  | 0         |          |
| 16               | 0 | 0          | 0  | 0         |          |
| 17               | 0 | 0          | 0  | 0         |          |
| 18               | 0 | 0          | 0  | 0         |          |
| 19               | 0 | 0          | 0  | 0         |          |
| 20               | 0 | 0          | 0  | 0         |          |
| 21               | 0 | 0          | 0  | 0         |          |
| 22               | 0 | 0          | 0  | 0         |          |
| 23               | 0 | 0          | 0  | 0         |          |
| 24               | 0 | 0          | 0  | 0         |          |
| 25               | 0 | 0          | 0  | 0         |          |
| 26               | 0 | 0          | 0  | 0         |          |
| 27               | 0 | 0          | 0  | 0         |          |
| 28               | 0 | 0          | 0  | 0         |          |
| 29               | 0 | 0          | 0  | 0         |          |
| 30               | 0 | 0          | 0  | 0         |          |

|  |                    |
|--|--------------------|
| OBSERVER'S NAME (PRINT)<br>William McCall    |                    |
| OBSERVER'S SIGNATURE<br>                     | DATE<br>8-10-2017  |
| ORGANIZATION<br>KOOGLER AND ASSOCIATES, INC. |                    |
| CERTIFIED BY<br>AEROMET                      | DATE<br>07-28-2017 |



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KOGLER & ASSOCIATES, INC.  
*ENVIRONMENTAL SERVICES*



Sign: \_\_\_\_\_

QA: \_\_\_\_\_

### Process Weight Rate For Visible Emissions

Project No.: 651-17-01

Company: TREND OFFSET PRINTING

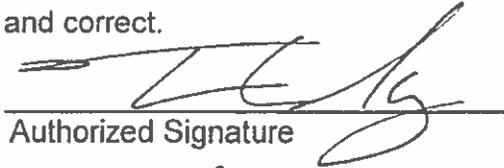
Location: JACKSONVILLE, FL

Date: 08-10-2017

Permit No.: 0310503-013-AC

| SOURCE ID  | Time  |       | Production Rate         |            |
|------------|-------|-------|-------------------------|------------|
|            | Start | End   | Permitted               | Actual     |
| EU No. 006 | 14:00 | 14:30 | 610 105114. 1416        | 23 Lbs     |
| "          | "     | "     | 1 GPH BLANKET WASH      | .1 gallon  |
|            |       |       | 1 GPH FOUNTAIN SOLUTION | .05 gallon |
|            |       |       |                         |            |
|            |       |       |                         |            |
|            |       |       |                         |            |
|            |       |       |                         |            |
|            |       |       |                         |            |
|            |       |       |                         |            |
|            |       |       |                         |            |

To the best of my knowledge, the above data is true and correct.



Authorized Signature

Tim Commiskey  
Printed Name and Title





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KOGLER & ASSOCIATES, INC.  
*ENVIRONMENTAL SERVICES*



**PROJECT PARTICIPANTS**

**Koogler and Associates, Inc.**

John B. Koogler, Ph.D., P.E. .... Project Advisor  
William McCall.....Project Manager / Field Technician

**Trend Offset Printing Services, Inc.**

Tim Cummiskey ..... Environmental Health and Safety

