

I. Source Information

1. **Product/Process Description:** Laminated and/or coated/printed aluminum foil.
2. **Project Description:** Modification of Inta-Roto Inc. GM-1000 Laminator #14 to use solvent-based coatings and water-based coatings. A MEGTEC Systems Magnum 14,000 catalytic oxidizer will be installed on the exhaust from Laminator #14 system. Modification of Laminator #10 by adding a second Cerutti 28R-38R coating station to the system as well as adding a second oven with a 0.8 MMBtu/hr burner.
3. **Site Determination:** There are no other facilities that are contiguous or adjacent and under common control.
4. **Emission Unit Summary:**

Construction No.	Equipment Description
C-0015-1001-15-V	One (1) Inta-Roto Inc. GM-1000 Laminator controlled by a MEGTEC Systems Magnum 14,000 Catalytic Oxidizer and one (1) Cerutti 28R-38R coating station with a 0.8 MMBtu/hr oven.

5. Permit Revisions

Revision No.	Date of Issuance	Public Notice Date	Type	Emission Unit/Page No.	Description
Initial	X/X/2015	3/5/2015; 6/20/2015	Initial	Entire Permit	Initial Permit Issuance

6. **Fugitive Sources:** There are no fugitive emissions for this project.
7. **Plantwide Emission Summary:**

Pollutant	District Calculated Actual Emissions 2013 Data (tpy)	Major Source Status (based on PTE)
CO	3.93	No
NO _x	4.69	No
SO ₂	0.03	No
PM ₁₀	1.30	No
VOC	84.89	Yes
Single HAP > 1 tpy	N/A	Yes
Total HAPs	0.27	Yes

8. Applicable Requirements:

PSD 40 CFR 60 SIP 40 CFR 63
 NSR 40 CFR 61 District-Origin 40 CFR 64

9. MACT Requirements:

40 CFR 63 Subpart KK National Emissions Standards for the Printing and Publishing Industry

10. Referenced Federal Regulations in Permit:

40 CFR 63 Subpart KK National Emissions Standards for the Printing and Publishing Industry

40 CFR 64 Compliance Assurance Monitoring

II. Regulatory Analysis

1. Acid Rain Requirements: The source is not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements: Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. This source does not manufacture, sell, or distribute any of the listed chemicals. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment, and commercial refrigerators. Additionally, in 1995, the source voluntarily substituted a high ozone depleting with a low ozone depleting compound in its refrigerator foaming operation under a "pollution control project" which received formal EPA approval on May 1, 1995.

3. Prevention of Accidental Releases 112(r): The source does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount. If the source becomes subject to 40 CFR 68 and Regulation 5.15, the source shall comply with the Risk Management Program and Regulation 5.15 and submit a Risk Management Plan to:

RMP Reporting Center
 P.O. Box 3346
 Merrifield, VA 22116-3346

4. 40 CFR Part 64 Applicability Determination: This project and affected equipment is major for VOCs. In accordance with 40 CFR 64, Compliance Assurance Monitoring for Major Stationary Sources, the source is required to operate and maintain the catalyst bed inlet temperature of at least 550°F, unless testing establishes a different minimum temperature, and continuously monitor inlet catalyst bed inlet temperature when Laminator #14 is using solvent based coatings.

5. Basis of Regulation Applicability

a. Plant-wide

The source is a potential PSD (Prevention of Significant Deterioration) source for the pollutant VOC. Regulation 2.05 – *Prevention of Significant Deterioration of Air Quality* establishes requirements to limit the plant-wide potential emission rates to below PSD source threshold levels and to provide methods of determining continued compliance with all applicable requirements. Per Regulation 2.05 plant-wide VOC emissions are limited to 250 tons during any consecutive 12-month period.

Regulation 2.03, section 6.1 requires sufficient monitoring, record keeping, and reporting to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the District upon request.

Regulations 5.00 5.20, 5.21, and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards.

b. Applicable Regulations:

Regulation	Title	Type
1.05	Compliance with Emission Standards and Maintenance Requirements	SIP
2.03	Authorization to Construct or Operate; Demolition/Renovation Notices and Permit Requirements	SIP
2.05	Prevention of Significant Deterioration of Air Quality	PSD
2.16	Title V Operating Permits	SIP
5.00	Definitions	Local
5.01	General Provisions	Local
5.21	Environmental Acceptability for Toxic Air Contaminants	Local
6.29	Graphic Arts Facilities Using Rotogravure or Flexographic Printing	SIP

40 CFR 63 Subpart KK	National Emissions Standards for the Printing and Publishing Industry	Federal
40 CFR 64	Compliance Assurance Monitoring	Federal

c. Basis for Applicability

Regulation	Basis for Applicability
5.00, 5.01, 5.21	Establishes the requirements for Environmental Acceptability for TACs. The source is a Group I company with TAC emissions.
6.29	Each printing line for packaging rotogravure, publication rotogravure, specialty rotogravure, or flexographic printing.
40 CFR 63 Subpart KK	Establishes HAP emission limits or content limits for various inks and solvents for major sources of HAPs in the printing and publishing industry.
40 CFR 64	Enhanced monitoring requirements for major sources under Part 70 for VOC.

d. Permit C-0015-1001-15-V

i. Equipment:

Description Make/Model	Maximum Capacity	Control Device Description
Laminator #14 Inta-Roto Inc./GM-1000	N/A	Catalytic Oxidizer
Laminator #10 Coating Station #2 Cerutti/28R-38R	N/A	N/A

ii. Standards/Operating Limits

1) VOC

- (a) Regulation 6.29 establishes VOC content limits for various inks and solvents (<35% by weight of the VOC net input). This laminator may use inks and solvents which exceed the VOC requirements. Therefore, a percent reduction limit is established.
- (b) The source is a CTG source and must show compliance on a daily basis per Regulation 1.05, section 4.1.

2) **HAPs**

40 CFR 63 Subpart KK establishes HAP emission limits or content limits for various ink and solvents. The source has opted to show compliance with the content limit standard (<4% HAP).

3) **TACs**

Regulations 5.00 and 5.21 require that TAC emissions do not exceed environmentally acceptable levels, whether specifically established by modeling or determined by the District to be de minimis.

III. Other Requirements

1. **Temporary Sources:** The source did not request to operate any temporary facilities.
2. **Short Term Activities:** The source did not report any short term activities.
3. **Emissions Trading:** N/A
4. **Operational Flexibility:** The source did not request any operational flexibility for this equipment.
5. **Compliance History:**

Incident Date(s)	Regulation Violated	Result
9/7/1999	2.03	Settled
6/20/2000	2.03	Settled
9/19/2000	7.18	Settled

6. **Calculation Methodology:**

- a. Uncontrolled VOC emissions from the laminators may be calculated according to the following methodology unless another method is approved by the District:

$$\text{VOC (lb)} = \text{Coating used (gal)} \times \text{Density (lb/gal)} \times \text{VOC content (\%)}$$

or

$$\text{VOC (lb)} = \text{Coating used (gal)} \times \text{VOC content (lb/gal)}$$

Controlled VOC emissions from Laminator #12 may be calculated according to the following methodology unless another method is approved by the District:

$$\text{VOC (lb)} = \text{Coating used (gal)} \times \text{Density (lb/gal)} \times \text{VOC content (\%)} \times [100 - \text{Capture Efficiency (\%)} \times \text{Destruction Efficiency (\%)}]$$

or

$$\text{VOC (lb)} = \text{Coating used (gal)} \times \text{VOC content (lb/gal)} \times [100 - \text{Capture Efficiency (\%)} \times \text{Destruction Efficiency (\%)}]$$

An example of a methodology to determine compliance is as follows unless another method is approved by the District:

$$\frac{\text{Total Solvent Based Controlled VOC Emissions}}{\text{Total Solvent Based Uncontrolled VOC Emissions}} \times 100\% < 35\%$$

- b. In a letter dated January 9, 2001, the source submitted their Notification of Compliance Status to the District and proposed to follow the compliance option §63.825(b)(4). To demonstrate compliance with §63.825(b)(4), the following equation is used:

$$H_L = \frac{\sum_{i=1}^p M_i C_{hi} + \sum_{j=1}^q M_j C_{hj}}{\sum_{i=1}^p M_i + \sum_{j=1}^q M_j}$$

C_{hi} = the organic HAP content of ink or other solids-containing material, i, expressed as a weight-fraction, kg/kg.

C_{hj} = the organic HAP content of solvent j, expressed as a weight-fraction, kg/kg.

H_L = the monthly average, as-applied, organic HAP content of all solids-containing materials applied at less than 0.04 kg organic HAP per kg of material applied, kg/kg.

M_i = the mass of ink or other material, i, applied in a month, kg.

M_j = the mass of solvent, thinner, reducer, diluent, or other non-solids-containing material, j, applied in a month, kg.

p = the number of different inks, coatings, varnishes, adhesives, primers, and other materials applied in a month.

q = the number of different solvents, thinners, reducers, diluents, or other non-solids-containing materials applied in a month

- 7. **Insignificant Activities:** There are no Insignificant Activities associated with this project.
- 8. **Permit Fee:** The construction permit fee of \$8,135.67 is based on the Schedule of Fees table in Regulation 2.08, section 12. The following table is a breakdown of the applicable fees.

Fee Type	Amount
Permit Actions:	
Significant Permit Revision	\$2,542.40
New Construction	
STAR Program	\$508.48

De Minimis Determination Only (Per TAC up to 5 TACs)	
PSD/NNSR (Per NSR Pollutant)	\$5,084.79