



Louisville Metro Air Pollution Control District
 701 West Ormsby Avenue, Suite 303
 Louisville, Kentucky 40203-3137



30 May 2017

Title V Statement of Basis

Owner: LLFlex, LLC

Source: LLFlex, LLC – Louisville Laminating Plant

Plant Location: 1225 W. Burnett Ave.

Date Application Received: See Table in section 8

Public Comment Date: 3/5/2017; 4/13/2017

District Engineer: Aaron DeWitt

Permit No: O-0015-17-V

Plant ID: 0015

SIC Code: 2754

NAICS: 322220

Introduction:

This permit will be issued pursuant to: (1) Regulation 2.16, (2) Title 40 of the Code of Federal Regulations Part 70, and (3) Title V of the Clean Air Act Amendments of 1990. Its purpose is to identify and consolidate existing District and Federal air requirements and to provide methods of determining continued compliance with these requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO₂), carbon monoxide (CO), 1 hr and 8 hr ozone (O₃), and particulate matter less than 10 microns (PM₁₀); and unclassifiable for the 2012 standard for particulate matter less than 2.5 microns (PM_{2.5}) and partial non-attainment area for sulfur dioxide (SO₂).

Application Type/Permit Activity:

- Initial Issuance
- Permit Revision
 - Administrative
 - Minor
 - Significant
- Permit Renewal

Compliance Summary:

- Compliance certification signed
- Source is out of compliance
- Compliance schedule included
- Source is operating in compliance

I. Source Information

1. **Product Description:** Laminated and/or coated/printed aluminum foil.
2. **Process Description:** LFFlex, LLC laminates paper, board and other substrates to aluminum foil using adhesives or heat seal. Rotogravure printing stations are used to apply water-based and solvent-based coatings and inks to the aluminum foil, paper and board. The company has eight machines which do a combination of laminating and printing/coating. Each machine is equipped with a drying oven. The coater heat seal materials together.
3. **Site Determination:** There are no other facilities that are contiguous or adjacent to this facility.
4. **Emission Unit Summary:**

Emission Unit	Equipment Description
Plantwide	Plantwide requirements
U1/U2	Laminators and dry ovens
U3	Storage Vessels
U4	Heating Boiler
UIA1	Particulate Emission Points
UIA2	Parts Washer

5. **Fugitive Sources:** There are fugitive VOC emissions from the Laminators, the Lacquer Mixing Room, and the Lacquer Storage Room.
6. **Permit Revisions:**

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
Initial	148-97-TV	09/28/2001	12/10/2000	Initial	Entire Permit	Initial Permit Issuance
R1	148-97-TV (R1)	11/05/2002	N/A	Renewal	U-2/35	Administrative change to correct a typo
R2	148-97-TV (R2)	12/15/2011	10/29/2011	Renewal	Entire Permit	Significant Changes; Name and Responsible Official Change; Correct the applicable boiler regulation from 6.07 to 7.06; Incorporate CAM Plan

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
R3	148-97-TV (R3)	03/20/2012	02/17/2012	Admin	Cover Page	Ownership/Name Change; see Administrative Change Document for list of corrections.
R4	148-97-TV (R4)	09/21/2015	N/A	Admin	U-2 E-10, E-10a, E-8, E-8a, and C-2. Added plant-wide section.	Incorporate Construction Permit C-0015-1001-15-V; add coating station to Laminator #10, add solvent coating to Laminator #14, and install new catalytic oxidizer for Laminator #14.
N/A	O-0015-17-V	05/30/2017	03/05/2017; 04/13/2017	Renewal	U-1 E-14, E-16 & E-16a	Boiler #2 (E-14) permanently disabled and stack removed. Boiler E-14 was removed by 7/26/2016. Thermal Oxidizer (C-1) was disabled by 2/3/17. E-16 & E-16a added.

7. **Construction Permit History:**

Permit No.	Effective Date	Description
75-88-C	6/30/1988	Above ground storage tanks, equipped with submerged fill pipes
381-92-C	6/22/1992	One (1) Kirk & Blum cyclone type S, #127F5 (Regulation 6.09), equipped with an economy baler for collection of scrap trims from one (1) slitter (Regulation 6.09) and one (1) slitter (Regulation 7.08). This permit VOIDS Permit 113-74.
102-93-C	2/11/1993	One (1) Koger/Air cyclone model #3-3354-70 with associated scrap baler to collect scrap trimmings from five (5) slitters.
121-93-C	3/2/1993	Laminators #6 and #10, Inta-Roto, Inc. model # GM-1000 and Schmutz Mfg. model # 045-0003 respectively, each equipped with a rotogravure printing (or coating) station.
430-05-C	4/30/2007	One (1) twenty gallon aqueous parts washer by Crystal Clean, model number 2702.
103-74-C (R1)	1/20/2012	Laminators #6, #7, #8, #9, #10, #11, & #14, and Coater #15 each equipped with rotogravure printing (or coating) stations and a drying oven. Each Laminator also has a glue station. The rotogravure printing stations have the ability to apply water-based and solvent-based inks and coatings.

Permit No.	Effective Date	Description
107-74-C (R1)	1/20/2012	Laminator #12, Inta-Roto Inc., Model # GM-2000-M-201, equipped with a rotogravure printing (or coating) station and a glue station. Two electric batch "cookers" for coatings. A Laquer mixing room containing three submerged-fill arms for filling drums with solvent one mixer, two floor vents and one ceiling hood.
577-74-C (R1)	1/20/2012	Construction of thermal oxidizer, Inta-Roto Inc., Model No. 7 HFP-GOL-P
34912-12-C	7/3/2012	Replacement of the existing Thermal Oxidizer with a TANN TR-1292 12,000 scfm Regenerative Thermal Oxidizer in Emission Unit U1 to control Emission Point E1.
C-0015-1001 -15-V	7/23/2015	Modification of Inta-Roto Inc. GM-1000 Laminator #14 to use solvent-based coatings and water-based coating. 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.

8. Permit Renewal-Related Documents

Document Number	Date Received	Description
77724	6/10/2016	Title V Permit Renewal Pre-application Meeting Summary
78549	7/26/2016	Permit renewal application
78674	8/1/2016	“Administratively complete” verification letter from APCD
79618	9/27/2016	District request for more information
79629	9/27/2016	LLFlex response to request for information about on-site cooling towers
80200	10/27/2016	District request for more information
80215	10/27/2016	LLFlex response to request for more information on Boiler #1 initial tune-up date
81080	12/26/2016	LLFlex response to control device removal
81138	1/6/2017	LLFlex request for comment deadline extension, and APCD response
81290	1/13/2017	APCD response to request for thermal oxidizer language deadline
81373	1/20/2017	Company informal comments on draft renewal permit
81502	1/30/2017	District request for site visit
81744	2/7/2017	LLFlex follow-up letter confirming removal of C-1 and applicable regulations
81751	2/7/2017	100k application resubmitted clarifying regulations applied
81768	2/8/2017	Clarification of a comment on the pre-draft TV permit review
81771	2/8/2017	Clarification that parts washer is compliant with Regulation 6.18
82321	3/3/2017	District response to LLFlex informal comments
82325	3/3/2017	EPA Public Notice on LLFlex TV renewal
83295	4/4/2017	LLFlex Comments proposed draft Title V permit
83314	4/4/2017	District request for additional information
83315	4/4/2017	EPA notice of comments received
83394	4/10/2017	LLFlex response to District request for additional information, 4/4/2017
83428	4/11/2017	Response to comment document

9. **Emission Summary:**

Pollutant	District Calculated Actual Emissions (tpy) 2015 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	3.9905	No
NO_x	4.7506	No
SO₂	0.0285	No
PM₁₀	0.8458	No
VOC	69.3478	Yes
Total HAPs	0.32	Yes
Single HAP > 1 tpy		
DGME	0.22	Yes
Acrylic Acid	0.0123	No
1,2-Propylenimine	0.004	No

10. **Applicable Requirements:**

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

11. **Referenced MACT Federal Regulations:**

40 CFR 63, Subpart DDDDD National Emissions Standards for Industrial, Commercial, and Institutional Boilers and Process Heaters

 40 CFR 63 Subpart A General Provisions

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

12. **Referenced non-MACT Federal Regulations:**

40 CFR Part 64 Compliance Assurance Monitoring for Major Stationary Source

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. LIFlex 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.
3. **Prevention of Accidental Releases 112(r):** LIFlex 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.
4. **40 CFR Part 64 Applicability Determination:** LIFlex is subject to 40 CFR Part 64 - *Compliance Assurance Monitoring for Major Stationary Sources* since the source is major for VOC and needs to apply control devices to ensure the compliance with the VOC emission standards specified in the Title V permit.
5. **Basis of Regulation Applicability**
 - a. **Plantwide**
 - i. LIFlex is a potential major source for the pollutant VOC, Total HAP & Single HAP (DGME). Regulation 2.16 – *Title V Operating Permits* establishes requirements for major sources.
 - ii. Regulation 2.05 establishes requirements for Prevention of Significant Deterioration of Air Quality for VOC, specified in Regulation 1.15, the company has accepted a less than 250 tons per 12 consecutive month limit for VOCs.
 - iii. Regulations 5.00 5.01, 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. LIFlex submitted the TAC Environmental Acceptability Demonstration to the District in March 2006, March 2008 and March 2012. The District reviewed the EA Demonstrations submitted by the source. Environmental Acceptability of emissions of all TACs, including a determination that emissions of all TACs are de minimis has been demonstrated for each “New or modified process or process equipment” and each “Existing process or process equipment” located at the stationary source. Emission Unit U1/U2 process equipment TAC emissions are de minimis pursuant to Regulation 5.21, Section 2.1 (MSDS/SDS Trace TAC). Emission Unit U3 process equipment

TAC emissions are de minimis based on an uncontrolled potential to emit (PTE) pursuant to Regulation 5.21, Section 4.2.2. Emission Unit U4 process equipment TAC emissions are de minimis pursuant to Regulation 5.21, Section 2.7 (natural gas combustion). TAC emissions from Insignificant Activities (as defined in Regulation 2.16) are de minimis pursuant to Regulation 5.21, Section 2.3. Because all TAC emissions from all processes and process equipment have been demonstrated to be de minimis, Tier 3 or Tier 4 modeling was not required to demonstrate environmental acceptability for this source.

- iv. Regulation 2.16, section 4.1.9.1, 4.1.9.2, 4.1.9.3, and 4.3.1 requires monitoring, record keeping, and testing 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.
- v. Regulation 2.16, section 4.3.5, requires stationary sources for which a Title V permit is issued shall submit an annual compliance certification by April 15 of the following calendar year. In addition, as required by Regulation 2.16, section 4.1.9.3, the source shall submit compliance reports at least every six months to show compliance with the permit. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.16, section 3.5.11.

b. Emission Unit U1/U2 – Laminators and dry ovens

i. Equipment:

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
U1: Lacquer room	N/A	1956	1.05, 6.29	Regulation 1.05 establishes standards for compliance with emission standards and maintenance requirements Regulation 6.29 establishes standards of performance for Graphic Arts Facilities using Rotogravure printing.
U1: Gravure Impression Cylinder Washing	Can wash up to 3 Impression Cylinders/hr	1956	1.05, 6.29	Regulation 1.05 establishes standards for compliance with emission standards and maintenance requirements Regulation 6.29 establishes

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
				standards of performance for Graphic Arts Facilities using Rotogravure printing.
U1: E-13B	Storage of coating in portable totes (~350 gallons each, ~50 on site)	N/A	6.29	Regulation 6.29 establishes standards of performance for Graphic Arts Facilities using Rotogravure printing.
E1: Laminator #12	1,500 fpm	1970	STAR, 1.05; 6.29, 40 CFR 63 Subpart KK	STAR Regulations establishes the requirements for Environmental Acceptability for TACs. Regulation 1.05 establishes standards for compliance with emission standards and maintenance requirements.
E-1a: Oven #12	7.5 MMBtu/hr	1970		Regulation 6.29 establishes standards of performance for Graphic Arts Facilities using Rotogravure printing. 40 CFR 63 Subpart KK establishes standards for a major source of HAP using rotogravure printing presses.
E-2: Laminator #6	1,500 fpm	1956	STAR, 1.05, 6.29, 40 CFR 63 Subpart KK	STAR Regulations establishes the requirements for Environmental Acceptability for TACs. Regulation 1.05 establishes standards for compliance with emission standards and maintenance requirements.
E-2a: Oven #6	4.0 MMBtu/hr	1956		Regulation 6.29 establishes standards of performance for Graphic Arts Facilities using Rotogravure printing. 40 CFR 63 Subpart KK establishes standards for a major source of HAP using rotogravure printing presses.
E-3: Laminator #7	1,500 fpm	1956	STAR, 1.05, 6.29, 40 CFR	STAR Regulations establishes the requirements for Environmental
E-3a: Oven #7	3.6 MMBtu/hr	1956		

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E-4: Laminator #8	1,500 fpm	1961	63 Subpart KK	Acceptability for TACs. Regulation 1.05 establishes standards for compliance with emission standards and maintenance requirements. Regulation 6.29 establishes standards of performance for Graphic Arts Facilities using Rotogravure printing. 40 CFR 63 Subpart KK establishes standards for a major source of HAP using rotogravure printing presses.
E-4a: Oven #8	5.4 MMBtu/hr	1961		
E-5: Laminator #9	1,500 fpm	1961		
E-5a: Oven #9	3.6 MMBtu/hr	1961		
E-16: Laminator #9	1,500 fpm	1961		
E-16a: Oven #9	1.8 MMBtu/hr	1961		
E-6: Laminator #10	1,500 fpm	1971		
E-6a: #10 Oven #1	3.6 MMBtu/hr	1971		
E-10: Laminator #10	1,500 fpm	1971		
E-10a: #10 Oven #2	0.8 MMBtu/hr	1971		
E-7: Laminator #11	1,500 fpm	1967		
E-7a: Oven #11	3.6 MMBtu/hr	1967		
E-8: Laminator #14	1,500 fpm	1971		
E-8a: Oven #14	3.6 MMBtu/hr	1971		
E-9: Coater #15	N/A	1956	N/A	N/A
E-9a: Oven #15	8.2 MMBtu/hr	1956	N/A	N/A.

ii. **Standards/Operating Limits**

1) **HAP**

- (a) 40 CFR 63 Subpart KK establishes HAP emission limits or content limits for various inks and solvents. LLFlex has opted to show compliance with the content limit standard.

2) **VOC**

- (a) This emission unit was previously covered by a source-specific State Implementation Plan Revision. The printing/coating machines were treated as one affected facility with a pound per day and ton per year VOC emission limit. The source can now comply with District Regulation 6.29, section 3 material composition limits.
- (b) Regulation 6.29 establishes VOC content limits for various inks and solvents. (<25% VOC, >60%

non-VOC, or <0.5 lb VOC/lb solid). These laminators use inks and solvents which do not exceed the VOC requirements.

- (c) LLFlex is a CTG source and must show compliance on a daily basis per Regulation 1.05, section 4.1.

iii. **Monitoring and Recordkeeping**

1) **HAP**

- (a) 40 CFR 63, Subpart KK allows many methods to show compliance with the standard. LLFlex has opted to use Equation 6 from the Regulation.

2) **VOC**

- (a) Regulation 6.29, has specific record keeping requirements.
- (b) LLFlex is a CTG source and must maintain daily records and calculations that demonstrate daily compliance with the VOC emission standards per Regulation 1.05, section 4.1.

iv. **Reporting**

1) **HAP**

- (a) 40 CFR 63 Subpart KK requires semi-annual reports including any exceedances of the standard if applicable.

c. **Emission Unit U3 – Storage Vessels**

i. **Equipment:**

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E-11: Tank #3	1,000 gal	1988	1.05, 7.12, STAR	Regulation 1.05 establishes standards for compliance with emission standards and maintenance requirements.
E-12: Tank #2	2,000 gal	1988		Regulation 7.12 establishes the

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E-13: Tank #1	1,000 gal	1988		requirements for VOC emissions from new storage vessels that commence construction after April 19, 1972.
E-13A: Tank #4	10,000 gal	1988		STAR Regulations establishes the requirements for Environmental Acceptability for TACs.

ii. **Standards/Operating Limits**

1) **VOC**

- (a) Tanks #1, #2 & #3 have a storage capacity greater than 250 gallons, but less than 40,000 gallons and have contents with a true vapor pressure greater than 1.5 psia. They are required to be equipped with a permanent submerged fill pipe per Regulation 7.12.
- (b) Tank #4 has a storage capacity greater than 250 gallons, but less than 40,000 gallons. It is not equipped with a permanent submerged pipe; therefore the vapor pressure of the contents must be less than 1.5 psia per Regulation 7.12.

d. **Emission Unit U4 – Heating Boiler**

i. **Equipment:**

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E-15: Boiler #1	16.737 MMBtu/hr	1974	STAR, 7.06, 40 CFR 63 Subpart DDDDD	STAR Regulations establishes the requirements for Environmental Acceptability for TACs. Regulation 7.06 establishes the standards of performance for boilers constructed after April 9, 1972. 40 CFR 63 Subpart DDDDD establishes the requirements for HAP emissions for existing boilers.

ii. **Standards/Operating Limits**

- 1) **HAP**
 - (a) 40 CFR 63, subpart DDDDD establishes standards, emission limitations, work practice and operating limits for HAP emissions.
- 2) **Opacity**
 - (a) The boiler is subject to the opacity standards in accordance with Regulation 7.06, section 4.2.
- 3) **PM**
 - (a) The emission standard for PM is determined in accordance with Regulation 7.06, section 4.1.4 as follows:

Total Heat Input Capacity = 16.737 MMBtu/hr
 PM limit = $0.9634 * (16.737)^{-0.2356} = 0.50$ lb/MMBtu
- 4) **SO₂**
 - (a) The emission standard for SO₂ is determined in accordance with Regulation 7.06, section 5.1.1. For natural gas combustion and a heat input capacity less than 145 MMBtu/hr, the standards is 1 lb/MMBtu.
- 5) **TAC**
 - (a) TAC emissions from the combustion of natural gas are considered “de minimis” based on Regulation 5.21, section 2.7.

iii. **Monitoring and Recordkeeping**

- 1) **HAP**

40 CFR 63, subpart DDDDD establishes monitoring and record keeping requirements for HAP compliance.
- 2) **Opacity/PM/SO₂**
 - (a) A one-time PM and SO₂ compliance demonstration has been performed for the boiler, using AP-42 emission factors and combusting natural gas, and the emission standards cannot be exceeded. Therefore, there are no monitoring, record keeping and

reporting requirements for these boilers with respect to PM and SO₂ emission limits contained in Regulation 7.06.

- (b) The District has determined that using a natural gas fired boiler will inherently meet the 20% opacity standard. Therefore, the company is not required to perform periodic monitoring to demonstrate compliance with the opacity standard contained in Regulation 7.06.

iv. **Reporting**

1) **HAP**

- (a) 40 CFR 63 Subpart DDDDD requires reports to demonstrate compliance with the MACT.

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 operational flexibility.
5. **Compliance History:**

Incid. #	Date	Regulation Violated	Settlement
02087	9/7/1999	2.03	Agreement with fine
02666	6/20/2000	2.03	Agreement with fine
02734	9/19/2000	7.18	Agreement with fine

LLFlex is required to submit their annual Compliance Certification to the District on or before April 15th of each calendar year. As of the draft date of Permit 149-97-V (R4), there are no compliance schedules in effect or progress reports required.

6. **Calculation Methodology or Other Approved Method:**

Generally, emissions are calculated by multiplying the throughput (ton, MMCF, gallons, etc) or hours of operation of the equipment by the appropriate emission

factor and accounting for any control devices unless otherwise approved in writing by the District.

Equipment	Emission Point	Pollutant	Emission Factor	Determination Method
Laminator #12 Laminator #6 Laminator #7 Laminator #8 Laminator #9-#1 Laminator #9-#2 Laminator #10-#1 Laminator #10-#2 Laminator #11 Laminator #14 Portable Totes	E-1 E-2 E-3 E-4 E-5 E-16 E-6 E-10 E-7 E-8 E-13B	VOC HAPs	MSDS/SDS content MSDS/SDS content	Mass balance calculation; see note c Mass balance calculation; see note b
Boiler #1 Oven #12 Oven #6 Oven #7 Oven #8 #9 Oven #1 #9 Oven #2 #10 Oven #1 #10 Oven #2 Oven #11 Oven #14 Oven #15	E-15 E-1a E-2a E-3a E-4a E-5a E-16a E-6a E-10a E-7a E-8a E-9a	NOx SO ₂ PM VOC CO	100 lb/MMcf 0.6 lb/MMcf 7.6 lb/MMcf 5.5 lb/MMcf 84 lb/MMcf	AP-42 section 1.4, Table 1.4-1 through 1.4-4
Tank #3 Tank #2 Tank #1 Tank #4	E-11 E-12 E-13 E-13A	VOC	AP-42, Section 7.1	
Woodshop Various dust collectors	E-17 E-18	PM PM	1.89% of material removed PM ₁₀	Estimating Emissions from Generation and Combustion of 'Waste Wood', July 15, 1998
Process scrap conveying systems	E-19	PM	0.25% of PM of total tonnage processed	Source estimate
Shot blast cabinet	E-20	PM	See note a	See note a
Parts washer	E-21	VOC	MSDS/SDS content	Mass balance calculation

a. Blast equipment for actual emissions:

Uncontrolled

PM(ton) = (operating time, hr) (capacity, 165 lb abrasive/hr) (emission factor, 27 lb/ 1000 lb abrasive)/ (2000, lb/ton)

PM₁₀(ton) = (operating time, hr) (capacity, 165 lb abrasive/hr) (emission factor, 13 lb/ 1000 lb abrasive)/ (2000, lb/ton)

Controlled

PM(ton) = (operating time, hr) (capacity, 165 lb abrasive/hr) (emission factor, 27 lb/ 1000 lb abrasive) (1 – control efficiency, 90% for a filter)/ (2000, lb/ton)

$PM_{10}(\text{ton}) = (\text{operating time, hr}) (\text{capacity, 165 lb abrasive/hr}) (\text{emission factor, 13 lb/ 1000 lb abrasive}) (1 - \text{control efficiency, 90\% for a filter}) / (2000, \text{lb/ton})$

- b. In a letter dated January 9, 2001, Reynolds 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.

- c. Uncontrolled VOC emissions shall be calculated according to the following methodology unless another method is approved in writing by the District:

VOC (lb) = Coating used (gal) × Density (lb/gal) × VOC content (%)

or

VOC (lb) = Coating used (gal) × VOC content (lb/gal)

Controlled VOC emissions shall be calculated according to the following methodology unless another method is approved in writing by the District:

VOC (lb) = Coating used (gal) × Density (lb/gal) × VOC content (%) × [100 – (Capture Efficiency (%) × Destruction Efficiency (%))]

or

VOC (lb) = Coating used (gal) × VOC content (lb/gal) × [100 – (Capture Efficiency (%) × Destruction Efficiency (%))]

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

$$\frac{\text{Total Solvent Based Controlled VOC Emissions (lbs)}}{\text{VOC Net Input into the affected facility (lbs)}} \times 100\% < 35\%$$

7. Insignificant Activities

Equipment	Quan.	PTE (tpy)	Basis for Exemption
Internal combustion engines (forklifts)	4	0.14 NO _x	Regulation 1.02, Appendix A
Maintenance shop brazing, soldering or welding equipment	2	0.02 PM	Regulation 1.02, Appendix A
Woodworking, not including conveying, hogging or burning of sawdust (see IA1)	1	0.03 PM	Regulation 1.02, Appendix A; See Note 7
Emergency relief vents and ventilating systems (not otherwise regulated)	3	N/A	Regulation 1.02, Appendix A
Laboratory ventilating	1	0.03 VOC	Regulation 1.02, Appendix A
Dust or particulate collectors that vent directly indoors in work space (See IA1)	3	0.03 PM	Regulation 1.02, Appendix A; See Note 7
Cold solvent parts cleaners equipped with a functional secondary reservoir (See IA2)	1	0.01 VOC	Regulation 1.02, Appendix A; See Note 7
Process scrap conveying systems (See IA1)	2	4.15 PM	Regulation 2.16, section 1.23.1.2; See Note 7
Shot blast cabinet (See IA1)	1	4.68 PM	Regulation 2.16, section 1.23.1.2; See Note 7

- 1) Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.
- 2) Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.
- 3) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.
- 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 shall submit an updated list of insignificant activities that occurred during the preceding year pursuant to Regulation 2.16 section 4.3.5.3.6.
- 6) 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) to be reported on the annual emission inventory.
- 7) The District has determined pursuant to Regulation 2.16 section 4.1.9.4 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.

8. Basis of Regulation Applicability for IA units

a. Emission Unit IA1 – Particulate Emission Points

i. Equipment

Emission Point	Description	Applicable Regulation	Basis for Applicability
E-17	One (1) woodshop	7.08	Regulation 7.08 applies to PM standards of performance for new process operations.
E-18	Three (3) dust collectors	7.08	
E-19	Two (2) process scrap conveying systems	7.08	
E-20	One (1) shot blast cabinet	7.08	

ii. Standards/Operating Limits

1) Opacity

(a) Regulation 7.08, section 3 establishes standards for opacity.

2) PM

(a) Regulation 7.08, section 3 establishes the method for determining the standard for PM for E-16.

(b) Regulation 7.08, Table 1 establishes standards for PM for E-17 through E-19.

b. Emission Unit IA2 – Parts Washer

i. Equipment

Emission Point	Description	Applicable Regulation	Basis for Applicability
E-21	One (1) parts washer with secondary reservoir installed 2003	6.18	Regulation 6.18 applies to each cold cleaner that uses VOCs to remove soluble impurities from metal surface.

ii. **Standards/Operating Limits**

1) **VOC**

- (a) Regulation 6.18, section 4 establishes the requirements to install, maintain, and operate the parts washers.

iii. **Monitoring and Record Keeping**

1) **VOC**

- (a) The source is required to monitor and maintain records in accordance with Regulation 6.18, section 4.4.