# Commonwealth of Kentucky Division for Air Quality

# STATEMENT OF BASIS / SUMMARY

Conditional Major, Construction/Operating
Permit: F-24-058

Kodi Collective – Lebanon Junction
13487 South Preston Highway
Lebanon Junction, KY 40150
October 22, 2024
Jonathon Hughes, Reviewer

SOURCE ID: 21-029-00032

AGENCY INTEREST: 470

ACTIVITY: APE20240003

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# **SECTION 1 – SOURCE DESCRIPTION**

SIC Code and descri	iption: 27	21, Periodio	cals: Publishing	g, or Publishing an	d Printing	
Single Source Det.	□ Yes	⊠ No	If Yes, Affilia	ted Source AI:		
Source-wide Limit	⊠ Yes	□ No	If Yes, See Se	ction 4, Table A		
28 Source Category	□ Yes	⊠ No	If Yes, Catego	ory:		
County: Bullitt Nonattainment Area If yes, list Classi		□ PM <sub>10</sub> □	PM <sub>2.5</sub> □ CO	$\square$ NO <sub>X</sub> $\square$ SO <sub>2</sub>	□ Ozone	□ Lead
PTE* greater than 1 If yes, for what p $\square$ PM <sub>10</sub> $\square$ PM <sub>2.5</sub>	ollutant(s	s)?	•	⊠ Yes □ No		
PTE* greater than 2 If yes, for what per $\square$ PM <sub>10</sub> $\square$ PM <sub>2.5</sub>	ollutant(s	3)?	-	⊠ Yes □ No		
PTE* greater than 1 If yes, list which			azardous air po	ollutant (HAP)	Yes 🛮 No	)
PTE* greater than 2.	5 tpy for	combined H	IAP □ Yes	⊠ No		

\*PTE does not include self-imposed emission limitations.

# **Description of Facility:**

The facility prints magazines using offset lithographic presses, each with a natural gas fired dryer and propane as a backup fuel. In general, inks, fountain solutions, and cleaning solutions are the primary emission sources of VOC's as well as hazardous air pollutants (HAPs). The natural gas fired dryers are the main source of carbon monoxide (CO) and nitrogen oxides ( $NO_x$ ).

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## SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

Permit Number: F-24-058	Activities: APE20240003
Received: September 30, 2024	Application Complete Date: October 18, 2024
Permit Action: ⊠ Initial □ Renewal	☐ Significant Rev ☐ Minor Rev ☐ Administrative
Construction/Modification Requested?	⊠Yes □No NSR Applicable? □Yes ⊠No
Previous 502(b)(10) or Off-Permit Chan	ges incorporated with this permit action □Yes ⊠No

## **Description of Action:**

Facility requests change from a Title V source (last permit V-20-003 R2) to a conditional major source. EU 8 (Press 409), 9 (Press 410) and 10 (Press 412) have been removed. EU 25, Press 419 (Heatset lithographic press with integrated thermal oxidizer) has been added. The overall project (3 presses removed and 1 added) results in an after control emissions decrease of 22.1 tons per year VOC as shown below.

EU 26, Scrap Paper Collection System was prior considered insignificant but updated calculations require it to be moved to Section B of the permit. The majority of particulate emissions increase in below table is a result of these updated calculations.

E 24 050 E C							
		4-058 Emission Sumn					
Pollutant	2023 Actual	Previous PTE	Change (tpy)	Revised PTE			
	(tpy)	V-20-003 R2 (tpy)		F-24-058 (tpy)			
СО	2.06	43.8	-13.0	30.8			
NO <sub>X</sub>	2.60	70.5	-26.5	44.0			
PT	0.19	4.24	26.7	30.9			
$PM_{10}$	0.19	4.24	4.49	8.73			
$PM_{2.5}$	0.19	3.25	2.33	5.58			
SO <sub>2</sub>	0.03	1.42	0	1.42			
VOC	25.6	116	-22.1	93.9*			
Lead	0	0.0002	0	0.0002			
	Gr	eenhouse Gases (GHO	Gs)				
Carbon Dioxide	2890	63700	-24009	39691			
Methane	0.06	0.60	0.14	0.74			
Nitrous Oxide	0.05	0.57	-0.50	0.07			
CO <sub>2</sub> Equivalent (CO <sub>2</sub> e)	2906	63900	-24169	39731			
	Hazardous Air Pollutants (HAPs)						
Glycol Ethers	0.09	0.32	0.24	0.56			
Hexane	0	0	0.59	0.59			
Combined HAPs:	0.17	1.03	0.49	1.52			

<sup>\*</sup> Note: Emissions limited by federally-enforceable emission limitations to ensure the source remains below major source thresholds to be classified as major stationary source as defined in 401 KAR 52:001 and 401 KAR 51:001. After control emissions for comparison purposes with prior permit where minimum destruction efficiency was required to be 95% pursuant to 401 KAR 50:012. As a non-major source, this requirement no longer applies and the PTE for VOC will be the uncontrolled PTE going forward. Uncontrolled emissions are 943 tpy.

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SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

Emission Units #2, 3, 4, 6, 7, 13, 16 and 22 Lithographic Presses						
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method		
VOC	90 tpy Source- wide	To preclude 401 KAR 52:020	Material Balance & MSDS	RTO (CS-300), Testing and establish minimum temperature		

**Initial Construction Dates: See Below** 

# **Process Description:**

EP 2 Hantscho - 8 Unit Web Offset Heatset Lithographic Printing Press 401

Construction commenced: April 1991

Controls: MEGTEC Cleanswitch CS-300-95-HT thermal oxidizer (EP 15)

MP1: Maximum continuous rating: Ink - 50 lbs/hr

**MP2**: Fountain solution -2.5 lbs/hr

**MP3**: Auto Blanket wash – 0.563 gal/hr

**MP4**: Dryer (4.76 MMBTU/hr natural gas fired)

EP 3 Hantscho - 5 Unit Web Offset Heatset Lithographic Printing Press 404

Construction commenced: April 1991

Controls: MEGTEC Cleanswitch CS-300-95-HT thermal oxidizer (EP 15)

**MP1**: Maximum continuous rating: Ink - 50 lbs/hr

MP2: Fountain solution - 1.5 lbs/hr

**MP3**: Auto Blanket wash -0.35 gal/hr

**MP4**: Dryer (4.0 MMBTU/hr natural gas fired)

**EP 4** Hantscho - 6 Unit Web Offset Heatset Lithographic Printing Press 406

Construction commenced: Fall 1993

Controls: MEGTEC Cleanswitch CS-300-95-HT thermal oxidizer (EP 15)

**MP1**: Maximum continuous rating: Ink - 60 lbs/hr

**MP2**: Fountain solution -2.0 lbs/hr

**MP3**: Auto Blanket wash -0.03 gal/hr

**MP4**: Dryer (4.0 MMBTU/hr natural gas fired)

**EP 6** Hantscho Mark VII - 9 Unit Web Offset Heatset Lithographic Printing Press 407

Construction commenced: February 1994

Controls: MEGTEC Cleanswitch CS-300-95-HT thermal oxidizer (EP 15)

MP1: Maximum continuous rating: Ink - 60 lbs/hr

**MP2**: Fountain solution -2.75 lbs/hr

**MP3**: Auto Blanket wash -0.05 gal/hr

**MP4**: Dryer (6.4 MMBTU/hr natural gas fired)

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# Emission Units #2, 3, 4, 6, 7, 13, 16 and 22 Lithographic Presses

EP 7 Hantscho Mark XVI - 8 Unit Web Offset Heatset Lithographic Printing Press 411

Construction commenced: May 1997

Controls: MEGTEC Cleanswitch CS-300-95-HT thermal oxidizer (EP 15)

**MP1**: Maximum continuous rating: Ink - 50 lbs/hr.

**MP2**: Fountain solution -2.5 lbs/hr.

**MP3**: Auto Blanket wash -0.563 gal/hr.

**MP4**: Dryer (6.48 MMBTU/hr natural gas fired)

EP 13 Man Roland - 5 Unit Web Offset Heatset Lithographic Printing Press 416

Construction commenced: April 2005

Controls: MEGTEC Cleanswitch CS-300-95-HT thermal oxidizer (EP 15)

**MP1**: Maximum continuous rating: Ink - 75 lbs/hr.

**MP2:** Fountain solution - 2.5 lbs/hr.

**MP3**: Auto Blanket wash -0.29 gal/hr.

**MP4**: Dryer (4.0 MMBTU/hr natural gas fired)

**EP 16** Man Roland - 4 Unit Web Offset Heatset Lithographic Printing Press 418

Construction commenced: July 9, 2008

Controls: MEGTEC Cleanswitch CS-300-95-HT thermal oxidizer (EP 15)

**MP1**: Maximum continuous rating: Ink - 75 lbs/hr.

**MP2:** Fountain solution - 2.5 lbs/hr.

**MP3**: Auto Blanket wash -0.29 gal/hr.

**MP4**: Dryer (3.0 MMBTU/hr natural gas fired)

**EP 22** Hantscho Mark IV-6 Unit Web Offset Heatset Lithographic Printing Press 405

Construction commenced: June 2017

Controls: MEGTEC Cleanswitch CS-300-95-HT thermal oxidizer (EP 15)

**MP1**: Maximum continuous rating: Ink - 30 lbs/hr.

**MP2:** Fountain solution -2.0 lbs/hr.

**MP3**: Auto Blanket wash -0.425 gal/hr.

**MP4**: Dryer (Two 2.0 MMBTU/hr natural gas fired burners)

#### **EP 15** Regenerative Thermal Oxidizer

(Interlock MEGTEC System Cleanswitch CS-300-95-HT)

Maximum rate capacity of the burner: 3.46 MMBtu/hr (Natural Gas Fired)

Construction commenced: November 2001

A destruction efficiency of 97.8% at a combustion zone temperature of 1593°F was established during testing in October 2019

## Emission Units #2, 3, 4, 6, 7, 13, 16 and 22 Lithographic Presses

# **Applicable Regulations:**

**401 KAR 63:020**, *Potentially Hazardous Matter or Toxic Substances*, applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

## **Precluded Regulations:**

**401 KAR 50:012**, General application is precluded since the facility has requested a limitation for VOC emissions below a major source threshold.

#### **Comments:**

Presses grouped here are controlled by EP 15 RTO.

## <u>Lithographic Printing Presses</u>

For the inks (heat set litho presses), it is assumed that 80% of the VOCs contained in the ink are captured and conveyed to the control device. The remaining 20% is retained in the substrate.

For the fountain solutions, it is assumed that 70% of the VOC content is captured and conveyed to the control device. The remaining portion is emitted.

For the wash solutions, it is assumed that 40% of the VOC content is captured and conveyed to the control device. The remaining portion is emitted.

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Emission Units #11 and 12 Lithographic Presses							
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method			
VOC	90 tpy Source-wide	To preclude 401 KAR 52:020	Material Balance & MSDS	RTO (CS-200), Testing and establish minimum temperature			

**Initial Construction Dates: See Below** 

## **Process Description:**

**EP 11** Man Roland 4 Unit Web Offset Heatset Lithographic Printing Press 414

Construction commenced: June 2002

Controls: MEGTEC Cleanswitch CS-200 thermal oxidizer (EP 21)

**MP1**: Maximum continuous rating: Ink - 60 lbs/hr.

**MP2**: Fountain solution - 2.5 lbs/hr.

**MP3**: Auto Blanket wash -0.288 gal/hr.

**MP4**: Dryer (3.0 MMBtu/hr natural gas fired)

**EP 12** Man Roland 4 Unit Web Offset Heatset Lithographic Printing Press 415

Construction commenced: June 2002

Controls: MEGTEC Cleanswitch CS-200 thermal oxidizer (EP 21)

**MP1**: Maximum continuous rating: Ink - 60 lbs/hr.

**MP2**: Fountain solution - 2.5 lbs/hr.

**MP3**: Auto Blanket wash -0.288 gal/hr.

**MP4**: Dryer (3.0 MMBtu/hr natural gas fired)

#### **EP 21** Regenerative Thermal Oxidizer

(MEGTEC Cleanswitch CS-200)

Maximum rate capacity of the burner: 3.85 MMBtu/hr (Natural Gas)

Construction commenced: December 2011

A destruction efficiency of 97.9% at a combustion zone temperature of 1546°F was established during testing in November 2022

#### **Applicable Regulations:**

**401 KAR 63:020**, *Potentially Hazardous Matter or Toxic Substances*, applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

#### **Precluded Regulations:**

**401 KAR 50:012**, General application is precluded since the facility has requested a limitation for VOC emissions below a major source threshold.

#### **Comments:**

Presses grouped here are controlled by EP 21 RTO.

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# **Emission Units #11 and 12 Lithographic Presses**

# Lithographic Printing Presses

For the inks (heat set litho presses), it is assumed that 80% of the VOCs contained in the ink are captured and conveyed to the control device. The remaining 20% is retained in the substrate.

For the fountain solutions, it is assumed that 70% of the VOC content is captured and conveyed to the control device. The remaining portion is emitted.

For the wash solutions, it is assumed that 40% of the VOC content is captured and conveyed to the control device. The remaining portion is emitted.

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# Emission Unit #17 John Deere 6-Cylinder, 6.8 L, Diesel Emergency Generator Emission Unit #18 Kohler 6-Cylinder, 16.1 L, Diesel Emergency Generator

**Initial Construction Date: 2009** 

## **Process Description:**

Two diesel emergency generators.

## **Applicable Regulations:**

**401 KAR 60:005, Section 2(2)(dddd)** 40 C.F.R. 60.4200 to 60.4219, Tables 1 to 8 (Subpart IIII), Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

**401 KAR 63:002, Section 2(4)(eeee)** 40 C.F.R. 63.6580 to 63.6675, Tables 1a to 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

#### **Comments:**

John Deere 6-Cylinder, 6.8 L, Diesel Emergency Generator

Fuel Input: 1.66 MMBtu/hr Power Output: 237 Horsepower (HP)

Kohler 6-Cylinder, 16.1 L, Diesel Emergency Generator

Fuel Input: 5.30 MMBtu/hr Power Output: 757 Horsepower

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Emission Unit #19 Detroit Diesel 500ROZD4, 15.9 L, Diesel Emergency Generator Emission Unit #20 Cummins Diesel Firewater Pump Engine, 4.5 L

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**Initial Construction Date: 2000** 

#### **Process Description:**

Two diesel emergency generators.

# **Applicable Regulation:**

**401 KAR 63:002, Section 2(4)(eeee)** 40 C.F.R. 63.6580 to 63.6675, Tables 1a to 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

#### **Comments:**

Detroit Diesel 500ROZD4, 15.9 L, Diesel Emergency Generator

Fuel Input: 4.74 MMBtu/hr Power Output: 677 Horsepower

Cummins Diesel Firewater Pump Engine, 4.5 L

Fuel Input: 1.17 MMBtu/hr Power Output: 167 Horsepower

40 CFR 63.6590 (a)(1) Existing stationary RICE.

40 CFR 63.6590 (a)(1)(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

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	Emission Unit #23 X1 and X2 Boilers Emission Unit #24 Four (4) Natural Gas-Fired Hot Water Heaters							
Pollutant								
PM	0.56 lb/MMBtu (EP23) 0.50 lb/MMBtu (EP24) 20% opacity	401 KAR 59:015, Section 4(1)(c) 401 KAR 59:015,	AP-42 Chapter 1.4.	Assumed based upon natural gas combustion Assumed based upon				
$SO_2$	3.0 lbs/MMBtu (EP23)	Section 4(2) 401 KAR 59:015,	AP-42 Chapter	natural gas combustion Assumed based upon				
$SO_2$	2.47 lbs/MMBtu (EP24)	Section 5(1)	1.4.	natural gas combusti				

Initial Construction Dates: 1993 (EP23), 2008 (EP24, 3 units), 2021 (EP24, 1 unit)

## **Process Description:**

EP 23: Two boilers, 4.0 mmBTU/hr each. Natural gas.

EP 24: Four water heaters, 2.0 mmBTU/hr each. Natural gas.

# **Applicable Regulations:**

**401 KAR 59:015**, New Indirect Heat Exchangers, applicable to indirect heat exchangers having a heat input capacity greater than one (1) million BTU per hour (MMBtu/hr) commenced on or after April 9, 1972 (401 KAR 59:015, Section 2(1)).

**401 KAR 63:020**, *Potentially Hazardous Matter or Toxic Substances*, applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

#### **Comments:**

401 KAR 63:002, Section 2(4)(iiii) 40 C.F.R. 63.7480 to 63.7575, Tables 1 to 13 (Subpart DDDDD), National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters does apply since the facility is not a major source of HAPs.

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Emission Unit #25 Contiweb Offset Heatset Lithographic Printing Press 419							
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method			
VOC	90 tpy Source-wide	To preclude 401 KAR 52:020	Material Balance & MSDS	ITO, Testing			

**Initial Construction Date: Proposed 2024** 

### **Process Description:**

Controls: Thermal oxidizer (see below)

**MP1**: Maximum continuous rating: Ink – 58.3 lbs/hr.

**MP2:** Fountain solution -0.54 gal/hr. **MP3**: Auto Blanket wash -0.48 gal/hr.

**MP4**: Dryer (5.55 MMBTU/hr natural gas fired burner shared with (ITO)

#### **Integrated Thermal Oxidizer**

(Ecocool/T-2030 dryer with integrated thermal oxidizer (ITO))

Maximum rate capacity of burner: 5.55 MMBtu/hr (dryer and ITO use same burner)

Construction commenced: Proposed 2024

Destruction efficiency of 95% assumed prior to initial performance test.

## **Applicable Regulation:**

**401 KAR 63:020**, *Potentially Hazardous Matter or Toxic Substances*, applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

#### **Precluded Regulation:**

**401 KAR 50:012**, General application is precluded since the facility has requested a limitation for VOC emissions below a major source threshold.

#### **Comments:**

#### Lithographic Printing Presses

For the inks (heat set litho presses), it is assumed that 80% of the VOCs contained in the ink are captured and conveyed to the control device. The remaining 20% is retained in the substrate.

For the fountain solutions, it is assumed that 70% of the VOC content is captured and conveyed to the control device. The remaining portion is emitted.

For the automatic blanket wash, it is assumed that 40% of the VOC content is captured and conveyed to the control device. The remaining portion is emitted.

401 KAR 59:210, New fabric, vinyl and paper surface coating operations does not apply since no fabric, vinyl or paper is coated, dyed or finished at the source, nor is the facility a major source.

401 KAR 60:005, Section 2(2)(ww) 40 C.F.R. 60.430 through 60.435 (Subpart QQ), Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing does not apply since the facility does not operate publication rotogravure printing presses.

#### Emission Unit #25 Contiweb Offset Heatset Lithographic Printing Press 419

- 401 KAR 60:005, Section 2(2)(xx) 40 C.F.R. 60.440 through 60.447 (Subpart RR), Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations does not apply since the coating substrates do not have pressure sensitive properties.
- 401 KAR 60:005, Section 2(2)(hhh) 40 C.F.R. 60.580 through 60.585 (Subpart FFF), Standards of Performance for Flexible Vinyl and Urethane Coating and Printing does not apply since the facility does not operate rotogravure printing lines.
- 401 KAR 60:005, Section 2(2)(uuu) 40 C.F.R. 60.710 through 60.718 (Subpart SSS), Standards of Performance for Magnetic Tape Coating Facilities since the facility does not manufacture magnetic tape.
- 401 KAR 60:005, Section 2(2)(xxx) 40 C.F.R. 60.740 through 60.748 (Subpart VVV), Standards of Performance for Polymeric Coating of Supporting Substrates Facilities does not apply since the facilty does not perform coating of the substrates defined in the subpart.
- 401 KAR 63:002, Section 2(4)(aa) 40 C.F.R. 63.820 through 63.831, Table 1, and Appendix A (Subpart KK), National Emission Standards for the Printing and Publishing Industry does not apply since the facility is not a major source of HAPs.
- 401 KAR 63:002, Section 2(4)(ppp) 40 C.F.R. 63.3280 through 63.3420, Tables 1 through 2 (Subpart JJJJ), National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating does not apply since the facility is not a major source of HAPs.
- 401 KAR 63:002, Section 2(4)(ttt) 40 C.F.R. 63.4280 through 63.4371, Tables 1 through 6 (Subpart OOOO), National Emission Standards for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and Other Textiles does not apply since the facility is not a major source of HAPs.
- 401 KAR 63:002, Section 2(4)(mmmm) 40 C.F.R. 63.7980 through 63.8105, Tables 1 through 11 (Subpart HHHHH), National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing does not apply since the facility is not a major source of HAPs, nor do they manufacture coatings.
- 401 KAR 63:002, Section 2(4)(iiiii) 40 C.F.R. 63.11169 through 63.11180, Table 1 (Subpart HHHHHHH), National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources does not apply since the facility does not perform paint stripping and does not perform spray application of coatings containing the target HAP.

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Emission Unit #26 Scrap Paper Collection System								
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method				
PM	P\leq 1000 lb/hr, E= 2.34 lb/hr 1000\leq P\leq 60000 E= 3.59P <sup>0.62</sup>	401 KAR 59:010, Section 3(2)	See comments below	Assumed based on rates of emission supplied in the application				
	< 20% Opacity	401 KAR 59:010, Section 3(1)	N/A	Recordkeeping, weekly visual observation				

**Initial and Modified Construction Dates:** 1999 & 2024

**Process Description:** 

Maximum process rate: 2.05 tons per hour

Controls: None

**Applicable Regulation:** 

**401 KAR 59:010,** New process operations

#### **Comments:**

Emission factor based on engineering judgement and CAA administrator approved emissions calculation methodology listed in Title V Operating Permit O-0015-22-V issued by the Louisville Metro Air Pollution Control District. (Refer to Attachment A on Page 51/55, https://louisvilleky.gov/air-pollution-control-district/document/apcd-title-v-operating-permit-o-0015-22-v-llflex) The Source conservatively incorporated a safety factor 4.2 times greater than the cited emissions factor. PM<sub>10</sub> and PM<sub>2.5</sub> speciation factors of 17% and 12%, respectively, are based on engineering judgement.

Scrap Paper Collection System was previously identified as IA 8. New emissions estimates indicate the unit's uncontrolled PTE exceeds the insignificant activity 5 ton/yr threshold for regulated air pollutants (PM) and should be identified as a permitted emissions unit. Further, this classification for the Scrap Paper Collection System is consistent with KYDAQ's determination for similar equipment permitted as "EU 111 By-Products Shavings System with Cartridge Dust Filter" at the Kodi Collective - Danville Printing Facility under KYDAQ Title V Operating Permit V-22-016 R1.

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# SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS (CONTINUED)

# **Testing Requirements\Results**

Emission Unit(s)	Control Device	Parameter	Regulatory Basis	Frequency	Test Method	Permit Limit	Test Result	Thruput and Operating Parameter(s) Established During Test	Activity Graybar	Date of last Compliance Testing
15	RTO (CS-300)	VOC DRE	401 KAR 50:012	Every 5 years	Method 25A	95%	96.8%	RTO Temp 1585 °F	CMN20140001	11/18/2014
21	RTO (CS-200)	VOC DRE	401 KAR 50:012	Every 5 years	Method 25A	95%	99.0%	RTO Temp 1569.5 °F	CMN20170001	11/29/2017
15	RTO (CS-300)	VOC DRE	401 KAR 50:012	Every 5 years	Method 25A	95%	97.8%	RTO Temp 1593 °F	CMN20190001	10/30/2019
21	RTO (CS-200)	VOC DRE	401 KAR 50:012	Every 5 years	Method 25A	95%	97.9%	RTO Temp 1546 °F	CMN20220001	11/15/2022
25	ITO	VOC DRE	401 KAR 52:030	Initial and Every 5 years	Method 25A	None	TBD	RTO Temp TBD	TBD	TBD
15	RTO (CS-300)	VOC DRE	401 KAR 50:012	Every 5 years	Method 25A	None	TBD	RTO Temp TBD	TBD	TBD

**Footnotes:** Every 5 year destruction efficiency test on CS-300 was due on 10/30/2024. Facility submitted a request for a 60 day test extension on 8/14/2024. Approval issued on 11/1/2024, extending the testing deadline to 12/29/2024

# SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS

# **Table A - Group Requirements:**

<b>Emission and Operating Limit</b>	Regulation	Emission
		Unit
90 tpy VOC	To preclude 401 KAR 52:020, Title V	Source-
	permits.	wide

## **Table B - Summary of Applicable Regulations:**

Applicable Regulations	Emission
	Unit
401 KAR 59:010, New process operations.	26
401 KAR 59:015, New indirect heat exchangers	23, 24
<b>401 KAR 63:020</b> , Potentially Hazardous Matter or Toxic Substances	2-4, 6, 7,
	11-13, 16,
	22, 25
<b>401 KAR 60:005, Section 2(2)(dddd)</b> 40 C.F.R. 60.4200 through 60.4219, Tables	17, 18
1 through 8 (Subpart IIII), Standards of Performance for Stationary Compression	
Ignition Internal Combustion Engines	
<b>401 KAR 63:002, Section 2(4)(eeee)</b> 40 C.F.R. 63.6580 through 63.6675, Tables 1a	17-20
through 8, and Appendix A (Subpart ZZZZ), National Emission Standards for	
Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	

# **Table C - Summary of Precluded Regulations:**

Precluded Regulations	Emission Unit
401 KAR 50:012, General application	Source- wide

# **Table D - Summary of Non Applicable Regulations:**

N/A

#### **Air Toxic Analysis**

401 KAR 63:020, Potentially Hazardous Matter or Toxic Substances

The Division for Air Quality (Division) has performed SCREEN View on October 15, 2024 of potentially hazardous matter or toxic substances (Cumene, Ethylene Glycol, Glycol Ethers, Naphthalene, Xylene) that may be emitted by the facility based upon the process rates, material formulations, stack heights and other pertinent information provided by the applicant. Based upon this information, the Division has determined that the conditions outlined in this permit will assure compliance with the requirements of 401 KAR 63:020.

## **Single Source Determination**

N/A

# SECTION 5 – PERMITTING HISTORY

Permit	Permit Type	Activity#	Complete Date	Issuance Date	Summary of Action	PSD/Syn Minor
V-05-014	Renewal	APE20050001	2/19/2005	5/20/2005	Renewal	N/A
V-05-014 R1	Revision	APE20080001	3/24/2008	6/19/2008	Construction of new offset press (EP16)	N/A
V-09-040	Renewal	APE20090001	12/28/2009	7/22/2010	Renewal	N/A
V-09-040 R1	Revision	APE20110003	12/27/2011	5/29/2012	Addition of (3) diesel generators and (1) diesel firepump; Replace RTO	N/A
V-15-003	Renewal	APE20150001	1/30/2015	6/30/2015	Renewal	N/A
V-15-003 R1	Revision	APE20160001	1/4/2017	3/7/2017	Minor Revision to add Press 405	N/A
V-15-003 R2	Revision	APE20170001	12/20/2017	12/28/2017	Name change from Publishers Printing Co. to LSC Communications US, LLC	N/A
V-20-003	Renewal	APE20190001	1/28/2020	9/1/2020	Renewal	N/A
V-20-003 R1	Revision	APE20210002	2/2/2021	3/7/2021	Admin Amend, Name/owner change	N/A
V-20-003 R2	Admin Amend	APE20240001	3/20/2024	5/5/2024	Admin Amend, Name/owner change	N/A

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# SECTION 6 – PERMIT APPLICATION HISTORY

N/A

### APPENDIX A – ABBREVIATIONS AND ACRONYMS

AAQS – Ambient Air Quality StandardsBACT – Best Available Control Technology

Btu – British thermal unit

CAM – Compliance Assurance Monitoring

CO – Carbon Monoxide

Division – Kentucky Division for Air Quality

ESP – Electrostatic Precipitator

GHG – Greenhouse Gas

HAP – Hazardous Air Pollutant
 HF – Hydrogen Fluoride (Gaseous)
 MSDS – Material Safety Data Sheets

mmHg – Millimeter of mercury column height NAAQS – National Ambient Air Quality Standards

NESHAP – National Emissions Standards for Hazardous Air Pollutants

NO<sub>x</sub> – Nitrogen Oxides NSR – New Source Review PM – Particulate Matter

 $PM_{10}$  — Particulate Matter equal to or smaller than 10 micrometers  $PM_{2.5}$  — Particulate Matter equal to or smaller than 2.5 micrometers

PSD – Prevention of Significant Deterioration

PTE – Potential to Emit SO<sub>2</sub> – Sulfur Dioxide

TF – Total Fluoride (Particulate & Gaseous)

VOC – Volatile Organic Compounds