

Commonwealth of Kentucky
Division for Air Quality
STATEMENT OF BASIS / SUMMARY

Conditional Major, Operating
PERMIT ID: F-24-015
CCL Label Corporation
1187 Industrial Road
Cold Spring, KY 41076

March 25, 2024
Nathan Cox, Reviewer

Source ID: 21-037-00082
Agency Interest #: 37540
Activity ID: APE20230002

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SECTION 1 - SOURCE DESCRIPTION

SIC Code and description: 2759, Commercial Printing, NEC (flexographic printing).

Single Source Det. Yes No If Yes, Affiliated Source AI:

Source-wide Limit Yes No If Yes, See Section 4, Table A

28 Source Category Yes No If Yes, Category:

County: Campbell

Nonattainment Area N/A PM₁₀ PM_{2.5} CO NO_x SO₂ Ozone Lead
If yes, list Classification:

PTE* greater than 100 tpy for any criteria air pollutant Yes No
If yes, for what pollutant(s)?
 PM₁₀ PM_{2.5} CO NO_x SO₂ VOC

PTE* greater than 250 tpy for any criteria air pollutant Yes No
If yes, for what pollutant(s)?
 PM₁₀ PM_{2.5} CO NO_x SO₂ VOC

PTE* greater than 10 tpy for any single hazardous air pollutant (HAP) Yes No
If yes, list which pollutant(s):

PTE* greater than 25 tpy for combined HAP Yes No

*PTE does not include self-imposed emission limitations.

Description of Facility:

CCL Label Corporation has flexographic and digital presses that are used to print labels for various products. Inks used at this facility are a combination of Ultra Violet (UV) cured inks and Water-Based (WB) inks. These inks contain Volatile Organic Compounds (VOC) and only small amounts of Hazardous Air Pollutants (HAPs).

SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

Permit Number: F-24-015

Activity: APE20230002

Application Received: 12/12/2023

Application Complete: 2/5/2024

Permit Action: Initial Renewal Significant Rev. Minor Rev. Administrative

Construction/Modification Requested? Yes No

Previous 502(b)(10) or Off-Permit Changes incorporated with this permit action Yes No

Description of Action:

CCL Label Corporation is requesting renewal of their Conditional Major, Operating permit.

F-22-037 Emission Summary		
Pollutant	2022 Actual (tpy)	PTE F-22-037 (tpy)
CO	0.002	5.24
NOx	0.002	6.23
PT	0.0002	0.47
PM ₁₀	0.00004	0.47
PM _{2.5}	0.00004	0.47
SO ₂	0.00001	0.04
VOC	6.65	569.96*
Lead	0	3.12E-5
Greenhouse Gases (GHGs)		
Carbon Dioxide	2.4	7,465
Methane	0.00005	0.14
Nitrous Oxide	0.00005	0.01
CO ₂ Equivalent (CO ₂ e)	2.4	7,472
Hazardous Air Pollutants (HAPs)		
Combined HAPs:	0.216	0.28

*Note: Emissions limited by federally-enforceable emission limitations to ensure the source remains below major source thresholds. This includes a 50 tpy limit on VOC to preclude 40 CFR 60, Subpart RR.

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

Emission Unit 01 Printing Lines (A1-I5)				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
VOC	Source wide 50 tpy	40 CFR 60, Subpart RR and 401 KAR 52:030	Material Balance & MSDS	Monthly emission calculations and a new rolling 12-month total
<p>Initial Construction Date: 1991- 2022</p> <p>Process Description: Ten flexographic printers (A1, A2, A3, C1, C2, C4, D1, O2, O3, and O4) and one digital printer (I5).</p> <p>Applicable Regulation: 401 KAR 50:012, Section 1(5). <i>General Application.</i> Nothing in these administrative regulations shall allow a source to remove control equipment or discontinue procedures previously required in a nonattainment area to achieve the national ambient air quality standards until a state implementation plan containing different requirements has been approved by the U.S. EPA. 401 KAR 60:005, Section 2(xx), 40 CFR Part 60, Subpart RR, <i>Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operation,</i> is applicable to each coating line used in the manufacture of pressure sensitive tape and label materials which began construction, modification, or reconstruction after December 30, 1980. 401 KAR 63:020, <i>Potentially hazardous matter or toxic substances,</i> applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances.</p> <p>Comments: Flexographic presses (A1, A2, A3, C1, C2, C4 and D1) were installed when Campbell County was designated as Ozone nonattainment area and therefore were subject to regulation 401 KAR 59:212. On November 19, 2019, the area was designated as 8-hour Ozone (2015) NAAQS nonattainment area and classified as “Marginal”. On November 16, 2023, the area was re-designated as attainment area for 8-hour Ozone for 2015 NAAQS. 401 KAR 59:212 is applicable to nonattainment for ozone except marginal. Therefore, none of the presses are now subject to 401 KAR 59:212, however the anti-backsliding requirements of 401 KAR 50:012, Section 1(5) stipulate that the procedures previously required by 401 KAR 59:212 be continued for all presses that were subject to this regulation. The requirement from 401 KAR 59:212 are carried forward by 401 KAR 50:012, Section 1(5) and cited as such in the permit. 401 KAR 63:002, Section 2(aa), 40 CFR Part 63, Subpart KK, <i>National Emission Standards for the Printing and Publishing Industry.</i> This regulation does not apply to an area source of HAP or the narrow web flexographic presses in use at CCL Label. 401 KAR 59:210, <i>New fabric, vinyl and paper surface coating operations.</i> This regulation does not apply because the one (1) press which performs coating (D1, Digicon Flexo Press) also has a printing station, hence it was subject to 401 KAR 59:212 at the time of installation and is exempt by Section 1 (4)(j) of this regulation.</p>				

Emission Unit 01 Printing Lines (A1-I5)

401 KAR 60:005, Section 2(xx), 40 CFR Part 60, Subpart RR, *Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations*. This regulation is applicable to the source, however in accordance with 40 CFR 60.440(b), since the VOC input to the facility is limited by permit to no more than fifty (50) tons per year (tpy), the source is not subject to the emission limitations of 40 CFR 60.442(a). Recordkeeping requirements of this federal regulation have been incorporated into the permit.

401 KAR 59:212. *New graphic arts facilities using rotogravure and flexography*, is applicable to nonattainment areas for ozone except marginal. This regulation does not apply because Campbell County is not a nonattainment area for ozone currently. This regulation does not apply to Flexography Presses O2, O3, and O4 because the units were proposed to be constructed when Campbell County was designated as marginal non-attainment status for ozone effective on November 19, 2019. Additionally, Digital printer (I5) in this emission unit would not be subject to 401 KAR 59:212 since digital printer does not meet the definition of an affected facility under this regulation.

Calculations for the Printing Line include maximum material usage as follows:

UV/Water Based Ink = 170.90 gallon/hr

UV Cured Varnish = 107.78 gallon/hr

Water Based Glue = 77.48 gallon/hr

Scratch Off = 31.4 gallon/hr

Digicon Primer = 0.52 gallon/hr

Digital Ink 1 = 1.32 gallon/hr

Digital Ink 2 = 2.04 gallon/hr

Digital Primer = 1.29 gallon/hr

Cleaning Solvent = 0.2 gallon/hr

The Digital Printer I5 has integrated binary image development (BID) washer for VOC control with a manufacturer's guarantee of 90% efficiency. These printers cannot be operated unless the condenser has reached its prescribed operating temperature range. If the temperature exceeds this operating range, an alarm will sound until the error is corrected.

Emission Unit 02 Parts Washer

Initial Construction Date: 1/1/2013

Process Description:

Miscellaneous Manual Parts Washer

Applicable Regulation:

401 KAR 50:012, Section 1(5). *General Application.* Nothing in these administrative regulations shall allow a source to remove control equipment or discontinue procedures previously required in a nonattainment area to achieve the national ambient air quality standards until a state implementation plan containing different requirements has been approved by the U.S. EPA.

Comments:

401 KAR 59:185, *New solvent metal cleaning equipment* is applicable to cold cleaners, open top vapor degreasers, and conveyORIZED degreasers that utilize VOC to remove soluble impurities from metal surfaces commenced on or after June 29, 1979 located in a nonattainment area for ozone for any classification except marginal. At the time this activity was commenced, Campbell County was a nonattainment area for ozone and not classified as marginal, so the regulation was applicable. Campbell County has since been designated an attainment area, so this regulation is no longer applicable. However, the operating procedures and practices established by the requirements in 401 KAR 59:185 cannot be discontinued pursuant to 401 KAR 50:012 Section 1(5). The requirement from 401 KAR 59:185 are carried forward by 401 KAR 50:012, Section 1(5) and cited as such in the permit.

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS (CONTINUED)

Testing Requirements/Results

N/A

SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS

Table A - Group Requirements:

Emission and Operating Limit	Regulation	Emission Unit
50 tpy of VOC emissions	40 CFR 60, Subpart RR and 401 KAR 52:030	Source-wide

Table B - Summary of Applicable Regulations:

Applicable Regulations	Emission Unit
401 KAR 50:012, Section 1(5). <i>General Application</i>	EU 01, EU 02
401 KAR 60:005, Section 2(xx), 40 CFR Part 60, Subpart RR, <i>Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations</i>	EU 01
401 KAR 63:020, <i>Potentially hazardous matter or toxic substances</i>	EU 01

Table C - Summary of Precluded Regulations:

Precluded Regulations	Emission Unit
401 KAR 51:017, <i>Prevention of significant deterioration of air quality</i>	
401 KAR 52:020, <i>Title V permits</i>	

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 modeling using SCREEN View on April 3, 2024 of potentially hazardous matter or toxic substances (Cumene, Ethyl Benzene, Xylenes) 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
C-92-135	Initial	079-0520-0082	9/23/1992	10/9/1992	Initial Construction Permit	N/A
C-92-150	Construction	079-0520-0082	11/17/1992	12/15/1992	Minor Revision Modification to Press Line	N/A
F-09-027	Initial	APE20090001	6/22/2009	10/15/2009	Initial Operating Permit	Syn Minor
F-09-027 R1	Minor Revision	APE20100001	11/25/2010	4/11/2011	Added One (1) New Printer, Removed Five (5) Printers	N/A
F-09-027 R2	Minor Revision	APE20120001	4/2/2012	4/5/2012	Added Two (2) Print Stations to Press C2, Added Ink Jet Printer as Insignificant Activity, Corrected Number of Stations C1 and C3	N/A
F-14-028	Renewal	APE20140001	5/23/2014	8/18/2014	Renewal Permit	N/A
F-14-028 R1	Revision	APE20160001	3/14/2016	3/28/2016	Minor Revision	N/A
F-18-059	Renewal	APE20180005 APE20190001	12/17/2018	6/26/2019	Renewal	N/A
F-18-059 R1	Minor Revision	APE20200001	1/13/2020	5/13/2020	Replace EU C3 with a flexo printing line O2	N/A
F-18-059 R2	Minor Revision	APE20210001	4/19/2021	9/12/2021	Add flexo printing line O3 and remove O1 and I6	N/A
F-18-059 R3	Minor Revision	APE20220001	4/20/2022	9/26/2022	Add flexo printing line O4	N/A

SECTION 6 – PERMIT APPLICATION HISTORY
None.

APPENDIX A – ABBREVIATIONS AND ACRONYMS

AAQS	– Ambient Air Quality Standards
BACT	– 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 _x	– 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 ₂	– Sulfur Dioxide
TF	– Total Fluoride (Particulate & Gaseous)
VOC	– Volatile Organic Compounds