

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

Conditional Major, Construction/Operating
Permit: F-25-040

BY QUEST, LLC
Elizabethtown, KY 42701

December 1, 2025
Ibrahim Alburai, Reviewer

SOURCE ID: 21-093-00131
AGENCY INTEREST: 120565
ACTIVITY: APE20250001

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SECTION 1 – SOURCE DESCRIPTION

SIC Code and description: 3231, Glass Products Made of Purchased Glass

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: Hardin

Nonattainment Area N/A PM₁₀ PM_{2.5} CO NO_x SO₂ Ozone Lead

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): Xylenes (Total)

PTE* greater than 25 tpy for combined HAP Yes No

*PTE does not include self-imposed emission limitations.

Description of Facility:

BY QUEST, LLC is a container decorating service that screen prints, spray coats, and adds labels and heat transfer decals to a variety of spirits, wine, beverage and personal care industries' products. The source's operations consist of spray booths, cure ovens and printers.

SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

Permit Number: F-25-040

Activity: APE20250001

Application Received: September 11, 2025 Application Complete Date: November 7, 2025

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:

- Renewal permit with:
- Adding one additional coating type to the original three permitted to emission unit 01 Spray Booth
- Replacing two ovens (EP 04 and 05) with new ovens (EP08 and 09)
- Proposed a new oven - insignificant activities (EP 06)

F-25-040 Emission Summary		
Pollutant	2025 Actual (tpy)	PTE F-25-040 (tpy)
CO	1.48	5.84
NOx	1.76	6.95
PT	0.072	5.43
PM ₁₀	0.072	5.43
PM _{2.5}	0.072	5.42
SO ₂	0.011	0.042
VOC	0.681	138.04*
Lead	0	0
Greenhouse Gases (GHGs)		
Carbon Dioxide	2,112.0	8,326.8
Methane	0.041	0.157
Nitrous Oxide	0.011	0.016
CO ₂ Equivalent (CO ₂ e)	2,112.1	8,335.4
Hazardous Air Pollutants (HAPs)		
Chromium III	0.013	0.946**
Cobalt, Total	0	0.589**
Ethyl Benzene	0	6.511**
Methanol	0.066	1.717
Toluene	0	6.757
Xylenes (Total)	0.006	37.116*
Combined HAPs:	0.085	53.787*

* The permittee has requested federally enforceable emission limitations to preclude major source status under 401 KAR 52:020.

**Subject to limits for compliance with 401 KAR 63:020

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

Emission Unit # 01, 06, 07, 08 & 09 Spray Booth and ovens				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
VOC	Source wide 90 tpy	401 KAR 52:030	Material Balance & SDS	Recordkeeping, 12 month rolling total
HAP	Source wide 9 tpy single, 22.5 tpy combined	401 KAR 52:030	Material Balance & SDS	Recordkeeping, 12 month rolling total
PM	< 20% Opacity	401 KAR 59:010, Section 3(1)	None	Weekly Visual Observation
	2.34 lbs/hr	401 KAR 59:010, Section 3(2)	Material Balance & SDS with 60% Transfer Efficiency	Dry Filters, 90 % C.E., Manufacturer's guarantee
Ethylbenzene	Source wide 3.7 tpy	401 KAR 63:020	Material Balance & SDS	Monthly emission calculations and a new rolling 12-month total
Cobalt	0.00104 tpy	401 KAR 63:020	Material Balance & SDS	Dry Filters, 90 % C.E., Manufacturer's guarantee
Chromium III	0.213 tpy	401 KAR 63:020	Material Balance & SDS	Dry Filters, 90 % C.E., Manufacturer's guarantee

Initial Construction Date of Spray Booth: 08/2014

Process Description:

EP 1-1 Water-Based Ceramic Spray

Capacity: 4.17 gals/hr

Hours per year: 1752

EP 1-2 Water-Based Organic Spray

Capacity: 6.25 gals/hr

Hours per year: 4380

EP 1-3 Solvent-Based Organic Spray

Capacity: 5.21 gals/hr

Hours per year: 876

EP 1-4 Spray Coating Line- UV Coating

Capacity: 6.25 gals/hr

Installed Date: 08/2025

Hours per year: 1752

EP 06: Natural Gas Oven 3 (Lehr 3)

Capacity: 2.86 MMBtu/hr

Proposed installation date: 10/1/2026

Emission Unit # 01, 06, 07, 08 & 09 Spray Booth and ovens

EP07: Natural Gas Oven 4 (Lehr 4)

Capacity: 3.40 MMBtu/hr

Installed date: 1/1/2022

EP08 Natural Gas Batch Oven 5 (Lehr 1)

Capacity: 6.3 MMBtu/hr

Installed date: 1/1/2022

EP09 Natural Gas Batch Oven 6 (Lehr 2)

Capacity: 4.30 MMbtu/hr

Installed date: 1/1/2025

Applicable Regulations:

401 KAR 59:010, This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.

401 KAR 63:020, Potentially hazardous matter or toxic substances.

Comments:

Hourly Design Rates/Capacities are from the manufacturer data provided by the facility. Hours of operation split across four different coating materials were provided by the facility based on their anticipated usage.

Emission Unit #02 & #03 Printing				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
VOC	Source wide 90 tpy	401 KAR 52:030	Material Balance & SDS	Recordkeeping, 12 month rolling total
HAP	Source wide 9 tpy single, 22.5 tpy combined	401 KAR 52:030	Material Balance & SDS	Recordkeeping, 12 month rolling total
<p>Initial Construction Date: 2013</p> <p>Process Description:</p> <p>Emission Unit 02 Semi-Automatic Printing (10 units) Capacity: 4.17 lbs/hr Control equipment: None</p> <p>Emission Unit 03 Automatic Printing (3 units) Capacity: 3.33 lbs/hr Control equipment: None</p> <p>Applicable Regulation: 401 KAR 63:020, Potentially hazardous matter or toxic substances</p> <p>Comments: None</p>				

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
NA										

Footnotes:

SECTION 4 – SOURCE INFORMATION AND REQUIREMENT

Table A - Group Requirements:

Emission and Operating Limit	Regulation	Emission Unit
90 tpy of VOC emissions	To preclude major source status for VOC	Source-wide
9.0 tpy of individual HAP emissions	To preclude major source status for HAP	Source-wide
22.5 tpy of combined HAP emissions	To preclude major source status for HAP	Source-wide
3.70 tpy of Ethylbenzene	401 KAR 63:020	Source-wide
0.00104 tpy of Cobalt	401 KAR 63:020	Source-wide
0.213 tpy of Chromium III	401 KAR 63:020	Source-wide

Table B - Summary of Applicable Regulations:

Applicable Regulations	Emission Units
401 KAR 59:010 , <i>New process operations</i>	01
401 KAR 63:020 , <i>Potentially hazardous matter or toxic substances.</i>	01, 02, 03, 06, 07, 08, 09

Table C - Summary of Precluded Regulations:

Precluded Regulations	Emission Unit
401 KAR 52:020, Title V Permits	Source-wide

Table D - Summary of Non Applicable Regulations:

Non-Applicable Regulations	Emission Unit
N/A	

Air Toxic Analysis

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

The Division for Air Quality (Division) performed SCREEN View on November 12, 2025 of potentially hazardous matter or toxic substances (Chromium III, Cobalt, Cumene, Ethyl Benzene, Methanol, Toluene, 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. Additional refined model AERMOD was performed on November 21, 2025 on Ethyl benzene, Cobalt and Chromium III. 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. See emission limits in Section 4 of this document and Section D of the operating permit.

Single Source Determination

N/A

SECTION 5 – PERMITTING HISTORY

Permit	Permit Type	Activity #	Complete Date	Issuance Date	Summary of Action	PSD/Syn Minor
F-13-057	Initial	APE20130001	11/27/2013	2/10/2014	Initial Construction Permit	N/A
F-19-008	Renewal	APE20190001	2/20/2019	9/11/2019	Renewal Permit	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