Commonwealth of Kentucky
Division for Air Quality

STATEMENT OF BASIS / SUMMARY

Conditional Major, Operating
Permit: F-25-030

AGC Automotive Americas
1 Auto Glass Drive
Elizabethtown, KY 42701

March 17, 2026
Jonathon Hughes, Reviewer

SOURCE ID:	21-093-00090
AGENCY INTEREST:	1646
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 ☐ PM_{10} ☐ $PM_{2.5}$ ☐ CO ☐ NO_X ☐ SO_2 ☐ Ozone ☐ Lead
If yes, list Classification:

PTE* greater than 100 tpy for any criteria air pollutant ☒ Yes ☐ No
If yes, for what pollutant(s)?
☐ PM_{10} ☐ $PM_{2.5}$ ☐ CO ☐ NO_X ☐ SO_2 ☒ VOC

PTE* greater than 250 tpy for any criteria air pollutant ☐ Yes ☒ No
If yes, for what pollutant(s)?
☐ PM_{10} ☐ $PM_{2.5}$ ☐ CO ☐ NO_X ☐ SO_2 ☐ VOC

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

PTE* greater than 25 tpy for combined HAP ☒ Yes ☐ No

*PTE does not include self-imposed emission limitations.

Description of Facility:
AGC Automotive Americas is an auto glass manufacturing facility in Elizabethtown, Kentucky. The facility purchases glass, which is then cut and ground to specifications. The facility has glass laminating lines and glass tempering lines. Glass is laminated and a decorative glass coating is applied around the outer edge of the windshield. Side and rear windows are processed in the tempering lines. Glass is tempered and coated with a decorative glass coating, some of which is used on the rear windows for installation of defogging systems. After coating, the windows and windshields are immediately dried in electric print dryers, and then formed into final shape in natural gas-fired or electric ovens.

SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

Permit Number: F-25-030 Activities: APE20250001

Received: June 5, 2025 Application Complete Date: July 22, 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

APE20230001. Addition of the X296 Soldering Line. Approval issued: 8/21/2023
APE20230004. Addition of EL-7 Laminating Line (EU 16). Approval issued: 3/21/2024
APE20250002 Addition of EL-8 Laminating Line (EU 23) and a new 1.8 MMBtu/hr natural gas fired boiler (EU 17-19). Approval issued: 7/22/2025
APE20250003 Addition of IA23, AVO Assembly Line. Approval issued: 3/11/2026

Description of Action:
Renewal permit with addition of the E95 Tempering Line (EU 24) and modifications to the boiler inventory as follows. EU 17-04, 17-05, 17-06, 17-08, 17-10, 17-11 and 17-12 have been removed. EU 17-13, 17-14, 17-15, 17-16, 17-17, 17-18 and 17-19 have been added.

F-25-030 Emission Summary				
Pollutant	2024 Actual (tpy)	Previous PTE F-20-21 (tpy)	Change (tpy)	Revised PTE F-25-030 (tpy)
CO	3.92	12.5	0.4	12.9
NO_X	4.66	14.9	-1.1	13.8
PT	0.80	6.37	-0.17	6.20
PM_{10}	0.80	6.09	0.09	6.18
$PM_{2.5}$	0.78	5.46	0.65	6.11
SO_2	0.04	2.02	-0.02	2.00
VOC	38.6	189	55	244*
Lead	0.00002	0.00007	0	0.00007
Greenhouse Gases (GHGs)				
Carbon Dioxide	5597	17877	-3182	14695
Methane	0.11	0.34	-0.06	0.28
Nitrous Oxide	0.10	0.33	-0.30	0.03
CO_2 Equivalent (CO_2e)	5629	17983	-3273	14710
Hazardous Air Pollutants (HAPs)				
Diethylene Glycol Monobutyl Ether (CAS #: 112-34-5)	5.12	16.1	208	224**
Ethylene Glycol		0.61	0	0.61
Maleic Anhydride	0.24	0.53	-0.22	0.31

Toluene	0.02	2.24	0	2.24
Xylenes (Total)	0.00006	1.86	-0	1.86
Combined HAPs:	5.38	21.8	208	230**

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.

** Emissions limited by source-wide single HAP limit and air toxic limit pursuant to 401 KAR 63:020

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

Laminating Lines (EU01, 02, 03, 04, 06, 15, 16, 23)				
Pollutant	**Emission Limit or Standard**	**Regulatory Basis for Emission Limit or Standard**	**Emission Factor Used and Basis**	**Compliance Method**
VOC	Source wide 90 tpy	To preclude 401 KAR 52:020	Material Balance & MSDS	Monthly recordkeeping, 12 month rolling total
Individual HAP	Source wide 9.0 tpy	To preclude 401 KAR 52:020	Material Balance & MSDS	Monthly recordkeeping, 12 month rolling total
Diethylene glycol monobutyl ether (CAS #112-34-5)	Source wide 4.32 tpy	401 KAR 63:020	Material Balance & MSDS	Monthly recordkeeping, 12 month rolling total

Initial Construction Dates: See Below

Process Description:

Emission Point Number	Description/Process Equipment	Date Installed
EU01	EL-1 Laminating Line	1993
EU02	EL-2 Laminating Line	1993
EU03	EL-3 Laminating Line	1993
EU04	EL-4 Laminating Line	1993
EU15	EL-5 Laminating Line	10/2006
EU06	EL-6 Laminating Line	4/2015
EU16	EL-7 Laminating Line	1/2024
EU23	EL-8 Laminating Line	7/2025

The facility purchases glass, which is then cut and ground to specifications. Glass is laminated and a decorative glass coating is applied around the outer edge of the windshield. After coating, the windows and windshields are immediately dried in electric print dryers, and then formed into final shape in natural gas-fired or electric ovens. Cleanup for the coating operations at the plant is performed using a butyl acetate solvent.

Applicable Regulation:
401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Comments:
EU01 (EL-1), EU02 (EL-2), EU03 (EL-3), EU04 (EL-4), EU15 (EL-5) –
Laminating lines for auto glass windshields. Windshields are cut, ground, prepped, coated, dried and formed. Coating material 19.5% Diethylene Glycol Monobutyl Ether, 19.5% VOC by weight. Applicator Type: Automatic and continuous wipe coating. No controls.

EU06 (EL-6), EU16 (EL-7), EU23 (EL-8) –
Laminating lines. Ceramic coating 19.5% Diethylene Glycol Monobutyl Ether, 19.5% VOC by weight, Maleic Anhydride 0.1% by weight. Applicator Type: Automatic and continuous wipe coating. No controls. Silver Coating 0.5% Diethylene Glycol Monobutyl Ether, 20.5% VOC by weight.

Tempering Lines (EU 09, 10, 11, 12, 13, 24)				
Pollutant	**Emission Limit or Standard**	**Regulatory Basis for Emission Limit or Standard**	**Emission Factor Used and Basis**	**Compliance Method**
VOC	Source wide 90 tpy	To preclude 401 KAR 52:020	Material Balance & MSDS	Monthly recordkeeping, 12 month rolling total
Individual HAP	Source wide 9.0 tpy	To preclude 401 KAR 52:020	Material Balance & MSDS	Monthly recordkeeping, 12 month rolling total
Diethylene glycol monobutyl ether (CAS #112-34-5)	Source wide 4.32 tpy	401 KAR 63:020	Material Balance & MSDS	Monthly recordkeeping, 12 month rolling total

Initial Construction Dates: See Below

Process Description:

Emission Point Number	Description/Process Equipment	Date Installed
EU09	ETP-3 Tempering Line	1989
EU10	ETP-4 Tempering Line	1989
EU11	ETP-5 Tempering Line	2002
EU12	E75-1 Tempering Line	2005
EU13	E75-2 Tempering Line	2005
EU24	E95 Tempering Line	2023

The facility purchases glass, which is then cut and ground to specifications. Side and rear windows are processed in the tempering lines. Glass is tempered and coated with a decorative glass coating, some of which is used on the rear windows for installation of defogging systems. After coating, the windows and windshields are immediately dried in electric print dryers, and then formed into final shape in natural gas-fired or electric ovens. Cleanup for the coating operations at the plant is performed using a butyl acetate solvent.

Applicable Regulation:
401 KAR 63:020, *Potentially hazardous matter or toxic substances*

Comments:
EU09 (ETP-3), EU10 (ETP-4), EU11 (ETP-5), EU12 (E75-1), EU13 (E75-2), EU24 (E95)
Six tempering lines for auto glass windows. Windshields are cut, ground, prepped, coated, dried and formed. Cleanup solvent 1% Diethylene Glycol Monobutyl Ether, 20.2% VOC by weight. Applicator Type: Automatic and continuous wipe coating. No controls.

EU17 (07, 09, 13, 14, 15, 16, 17, 18, 19) Nine (9) natural gas-fired boilers				
Pollutant	**Emission Limit or Standard**	**Regulatory Basis for Emission Limit or Standard**	**Emission Factor Used and Basis**	**Compliance Method**
PM	See Appendix B	401 KAR 59:015, Section 4(1)	AP-42 Chapter 1.4.	Assumed based upon natural gas combustion
Opacity	20% opacity	401 KAR 59:015, Section 4(2)	N/A	Assumed based upon natural gas combustion
SO_2	See Appendix B	401 KAR 59:015, Section 5(1)	AP-42 Chapter 1.4.	Assumed based upon natural gas combustion
VOC	Source wide 90 tpy	To preclude 401 KAR 52:020	Material Balance & MSDS	Monthly recordkeeping, 12 month rolling total

Initial Construction Date: See Below

Process Description:

Emission Point Number	Description/Equipment Capacity	Date Installed
17-07	Parker Boiler #1, 6.25 MMBtu/hr.	2008
17-09	Parker Boiler #4, 6.25 MMBtu/hr.	2015
17-13	Raypak H9-1532, 1.53 MMBtu/hr.	2000
17-14	Raypak H9-1532, 1.53 MMBtu/hr.	2000
17-15	Raypak H9-1532, 1.53 MMBtu/hr.	2003
17-16	Parker Boiler #2, 6.25 MMBtu/hr.	2012
17-17	Raypak H9-1532, 1.53 MMBtu/hr.	2016
17-18	Raypak H9-1532, 1.53 MMBtu/hr.	2017
17-19	Lochnivar CHE-Sub-11, 1.8 MMBtu/hr.	2025

Applicable Regulation:
401 KAR 59:015, New indirect heat exchangers

401 KAR 63:020, Potentially hazardous matter or toxic substances [State-origin requirement]

Comments:
See Appendix B for 59:015 emission limits based on total heat input capacity of all affected facilities at the time each boiler was constructed.

EP 18 Onan Emergency Generator,
EP 19 Kohler Emergency Generator

Initial Construction Date: 1988, 2005

Process Description:
Emergency power generators for the facility.

Applicable Regulation:
401 KAR 63:002, Section (eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A (Subpart ZZZZ), *National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines*. An affected source is any existing, new, or reconstructed stationary Reciprocating Internal Combustion Engines (RICE) located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
Comments:
EP 18: Onan Model 75ENTL22033A emergency generator. Installed 1988. 75 KW (100 HP). Natural gas.

EP 19: Kohler Model 80RZG emergency generator. Installed 2005. 80 KW (107 HP). Natural gas.

Encapsulation Process (EU 22)

Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
VOC	Source wide 90 tpy	To preclude 401 KAR 52:020	Material Balance & MSDS	Monthly emission calculations and a new rolling 12-month total
Individual HAP	Source wide 9.0 tpy	To preclude 401 KAR 52:020	Material Balance & MSDS	Monthly emission calculations and a new rolling 12-month total

Initial Construction Date: See table below

Process Description:

Emission Point Number	Description/Process Equipment	Date Installed
EU22	03 Encapsulation Process (PP & TPE)	12/2016
EU22	04 Encapsulation Process (TPS Plastic)	12/2016
EU22	02 Encapsulation Process (PVC)	10/2017
EU22	01 Encapsulation Process (PP & TPE)	11/2019
EU22	05 Encapsulation Process (TPE Plastic)	10/2020

Encapsulation Process that extrudes a plastic strip around the perimeter of tempered and laminated automotive window glass. The machine then applies a softer plastic strip on the outside of the plastic. For proper adhesion of the plastic to glass, the glass is coated with a 3-part primer using a felt-tipped applicator.

Applicable Regulation:
401 KAR 63:020, Potentially hazardous matter or toxic substances. [State-origin requirement]

Encapsulation Process (EU 22)

Comments:

EU22 (03) Encapsulation Machine – Injection Molding Press. Installed 10/2016, startup 1/2017. Integral PM filters, no stack, transfer air is ultimately discharged into the room air. Emission point is for the "Primer for Encapsulation Process 1", "Plastic Injection Molding" is a secondary process and permitted under Insignificant Activities. Encapsulation Process that extrudes a polypropylene (PP) plastic strip around the perimeter of tempered and laminated automotive window glass. The machine then applies a softer TPE plastic strip on the outside of the PP plastic. For proper adhesion of the plastic to glass, the glass is coated with a 3-part primer using a felt-tipped applicator.

EU22 (04) Encapsulation Machine – Injection Molding Press. Installed 10/2016, startup 1/2017. Integral PM filters, no stack, transfer air is ultimately discharged into the room air. Emission point is for the "Primer for Encapsulation Process 2", "Plastic Injection Molding" is a secondary process and permitted under Insignificant Activities. Encapsulation Process that extrudes a TPS Plastic strip around the perimeter of tempered and laminated automotive window glass. For proper adhesion of the plastic to glass, the glass is coated with a 3-part primer using a felt-tipped applicator.

EU22 (02) Encapsulation Process that extrudes a PVC Plastic strip around the perimeter of tempered and laminated automotive window glass. For proper adhesion of the plastic to glass, the glass is coated with a 2-part or 3-part primer using a felt-tipped applicator. Encapsulation Process that extrudes a PVC Plastic strip around the perimeter of tempered and laminated automotive window glass. For proper adhesion of the plastic to glass, the glass is coated with a 2-part or 3-part primer using a felt-tipped applicator.

EU22 (01) Encapsulation Process that extrudes a polypropylene (PP) plastic strip around the perimeter of tempered and laminated automotive window glass. The machine then applies a softer TPE plastic strip on the outside of the PP plastic. For proper adhesion of the plastic to glass, the glass is coated with a 2-part primer using a felt-tipped applicator.

EU22 (05) Encapsulation Process that extrudes a TPE plastic strip around the perimeter of tempered and laminated automotive window glass and around as aluminum divider bar (ADB). For proper adhesion of the plastic to the glass and ADB, the glass and ADB are coated with a 3-part primer (with UV protection) using a felt-tipped applicator.

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
90 tpy VOC emissions	401 KAR 52:030	Source-wide
9.0 tpy individual HAP emissions	401 KAR 52:030	Source-wide
4.32 tpy Diethylene glycol monobutyl ether (CAS #112-34-5)	401 KAR 63:020	Source-wide

Table B - Summary of Applicable Regulations:

Applicable Regulations	Emission Units
401 KAR 63:020, Potentially hazardous matter or toxic substances.	01-04, 06, 09-13, 15-17, 22-24
401 KAR 59:015, New indirect heat exchangers.	17
401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A (Subpart ZZZZ), *National Emissions Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines*.	18, 19

Table C - Summary of Precluded Regulations:
N/A

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 March 12, 2026 of potentially hazardous matter or toxic substances (Cyanide Compounds, Ethylene Glycol, Maleic Anhydride, Methanol, Naphthalene, Toluene and 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.

The Division determined in F-05-031 (the initial permit) that for Diethylene Glycol Monobutyl Ether (DGME), a source-wide limit of 4.32 tpy would assure compliance with 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
F-05-031	Initial	APE20050002	7/20/2005	10/7/2005	Initial Permit	N/A
F-10-027	Renewal	APE20100001	6/17/2010	12/15/10	Renewal Operating Permit	N/A
F-10-027 R1	Revision	APE20120002	2/4/2013	2/8/2013	Removing EU 7 and EU 8 and adding insignificant activity	N/A
F-15-024	Renewal	APE20150002	7/23/2015	11/6/2015	Renewal Permit	N/A
F-15-024 R1	Revision	APE20160001	9/29/2016	11/23/2016	Minor Revision to Add EU22	N/A
F-20-021	Renewal	APE20200001	5/27/2020	12/6/2020	Renewal Permit	N/A

SECTION 6 – PERMIT APPLICATION HISTORY

N/A

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

APPENDIX B – INDIRECT HEAT EXCHANGER EMISSIONS LIMITATIONS

EU	Fuel	Capacity (MMBtu/hr)	Construction Date	Notes/ Removal Date	Basis for PM Limit	Total Heat Input Capacity for PM Limit (MMBtu/hr)	Basis for SO_2 Limit	Total Heat Input Capacity for SO_2 Limit (MMBtu/hr)
17-07	Natural Gas; #2 Fuel Oil	6.25	2008	N/A	Section 4(1)(c)	39.68	Section 5(1)(c)2.	39.68
17-09	Natural Gas; #2 Fuel Oil	6.25	2015	N/A	Section 4(1)(c)	56.66	Section 5(1)(c)2.	56.66
17-13	Natural Gas; #2 Fuel Oil	1.53	2000	N/A	Section 4(1)(c)	25.65	Section 5(1)(c)2.	25.65
17-14	Natural Gas; #2 Fuel Oil	1.53	2000	N/A	Section 4(1)(c)	25.65	Section 5(1)(c)2.	25.65
17-15	Natural Gas; #2 Fuel Oil	1.53	2003	N/A	Section 4(1)(c)	27.18	Section 5(1)(c)2.	27.18
17-16	Natural Gas; #2 Fuel Oil	6.25	2012	N/A	Section 4(1)(c)	45.93	Section 5(1)(c)2.	45.93
17-17	Natural Gas; #2 Fuel Oil	1.53	2016	N/A	Section 4(1)(c)	58.19	Section 5(1)(c)2.	58.19
17-18	Natural Gas; #2 Fuel Oil	1.53	2017	N/A	Section 4(1)(c)	59.72	Section 5(1)(c)2.	59.72
17-19	Natural Gas; #2 Fuel Oil	1.8	2025	N/A	Section 4(1)(c)	28.20	Section 5(1)(c)2.	28.20