Commonwealth of Kentucky
Division for Air Quality

STATEMENT OF BASIS / SUMMARY

Conditional Major, Operating
Permit: F-26-015

Axillon Aerospace (Erlanger), LLC
1400 Jamike Avenue
Erlanger, KY 41018

March 30, 2026
Nathan Cox, Reviewer

SOURCE ID:	21-015-00211
AGENCY INTEREST:	47225
ACTIVITY:	APE20260001

Table of Contents

SECTION 1 – SOURCE DESCRIPTION

SIC Code and description: 3724, Aircraft Engines and Engine Parts

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: Boone
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): Ethylene Glycol, Toluene, Xylenes

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

*PTE does not include self-imposed emission limitations.

Description of Facility:
Operations at the facility include the manufacturing of advanced lightweight composites for the aerospace industry. Emission sources at the facility include coating operations, molding, bonding, lay-up, grinding, and various hand-wipe cleaning operations utilizing solvents such as isopropyl alcohol and methyl ethyl ketone.

SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

Permit Number: F-26-015 Activity: APE20260001

Application Received: January 28, 2026 Application Complete Date(s): March 26, 2026

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 of the Conditional Major permit.
- Removal of one compression molding press, an insignificant activity.

F-26-015 Emission Summary		
Pollutant	2025 Actual (tpy)	PTE F-26-015 (tpy)
CO	0	0.19
NOx	0	0.37
PT	0.16	0.45
PM_{10}	0.16	0.45
$PM_{2.5}$	0.16	0.45
SO_2	0	0.001
VOC	5.03	194.16*
Lead	0	0
Greenhouse Gases (GHGs)		
Carbon Dioxide	0	261
Methane	0	0.005
Nitrous Oxide	0	0.0005
CO_2 Equivalent (CO_2e)	0	261
Hazardous Air Pollutants (HAPs)		
1,6-Hexamethylene Diisocyanate	0	0.58
Cumene	7.12E-4	1.69
Ethyl Benzene	9.83E-3	7.64
Ethylene Glycol	0	23.61*
Methanol	6.60E-4	2.79
Methyl Isobutyl Ketone	8.88E-5	4.98
Toluene	7.25E-3	35.19*
Xylenes (Total)	7.17E-3	13.44*
Combined HAPs:	2.57E-2	89.97*

*Note: Emissions limited by federally-enforceable emission limitations to ensure the source remains below major source thresholds.

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

Emission Units #01, 06 & 08: Painting Operations (EU01, EU06 and EU08)				
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
	Painting operations limited to 20 tpy	To preclude 401 KAR 59:225	Material Balance & SDS	Monthly recordkeeping, 12-month rolling 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
Combined HAP	Source-wide 22.5 tpy	To preclude 401 KAR 52:020	Material Balance & MSDS	Monthly emission calculations and a new rolling 12-month total
MFHAP	98% control	40 CFR Part 63, Subpart HHHHHH	N/A	Polyester/Fiberglass Arrestor, Paint Pockets Overspray Arrestor with 99.98% (EU01) / 99.84% (EU06) PM Control Effectiveness
PM	20% Opacity	401 KAR 59:010, Section 3(1)a	N/A	Polyester/Fiberglass Arrestor, Paint Pockets Overspray Arrestor with 99.98% (EU01) / 99.84% (EU06) PM Control Effectiveness
	2.34 lbs/hr	401 KAR 59:010, Section 3(2)	Material Balance & SDS, 60% Transfer efficiency	Weekly visual observation

Initial Construction Date: 2010 for EU01, 2016 for EU 06 & 08

Process Description:
EU01: Manual Paint Booth
Description: One DeVilbiss FLG4 HVLP spray gun applies primer and top coat to aerospace vanes.
Cleanup solvents used: Lacquer Thinner (FPL50-5), maximum usage 5 gallons per day.
Max application/coating rate: 5.63 gallons per hour
Control Equipment: Viledon 200 and 300 series fiberglass arrestor media and pad used in a two-stage filtration system that has a 99.98% efficiency.

Emission Units #01, 06 & 08: Painting Operations (EU01, EU06 and EU08)

EU06: Automatic Top Coat Booth/Flash-off Tunnel
Description: Utilizes two Walther Pilot WA725 HVLP automatic spray guns which cannot be used simultaneously, to apply top coat to aerospace vanes.
Cleanup solvents used: IS-213 Solvent Blend Polyurethane, maximum usage 2.663 gallons per day.
Max application/coating rate: 6.6 gallons per hour
Control Equipment: Paint Pockets single-stage polyester overspray arrestor has a 99.84% efficiency.

EU08: Automatic Top Coat Booth Cure Oven
Description: Eclipse RatioMatic Model RM0050
Throughput: 20 vanes/hr
Fuel: Natural Gas
Capacity: 0.5 MMBtu/hour

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." This regulation means that none of the control equipment, permit conditions, or emission limitations employed to comply with 401 KAR 59:225 *New miscellaneous metal parts and products surface coating operation* can be removed now that 401 KAR 59:225 no longer applies due to the Ozone attainment status at the facility's location. The applicability of 401 KAR 59:225 is further discussed below in the comments section.

401 KAR 59:010, *New process operations*. This regulation is applicable to each affected facility, associated with a process operation, which is not subject to another emission standard with respect to particulate matter, commenced on or after July 2, 1975. This regulation is applicable to EU01 and EU06. This regulation does not apply to EU08 because the particulate emissions from EU08 are caused only by the combustion of gaseous fuel, which is excluded from the definition of "process weight" in 401 KAR 59:010.

401 KAR 63:002, Section 2(4)(iiiii), 40 C.F.R. 63.11169 through 63.11180, Table 1 (Subpart HHHHHH), *National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources.* This regulation is applicable since the coatings used contain Barium Chromate, a compound of the target HAP chromium. No methylene chloride-containing substances are used at the facility. Only work practice standards from this subpart apply.

Comments:
401 KAR 59:225, *New miscellaneous metal parts and products surface coating operations* was precluded since the facility has accepted a 20 ton per year limit on VOC emissions from affected facilities (EU 01, 06 & 08). 401 KAR 59:225 is applicable to nonattainment for ozone except marginal. 401 KAR 59:225 would have been applicable without that 20 tpy limit because the equipment was installed when Boone County was designated as an Ozone nonattainment area by 401 KAR 51:010 Section 7 and therefore were subject to regulation 401 KAR 59:225. On November 16, 2023, the area was designated as 8-hour Ozone (2015) NAAQS attainment area in 401 KAR 51:010 Section 7(4). This means that 401 KAR 59:225 is no longer applicable to the equipment. However, the anti-backsliding requirements of 401 KAR 50:012, Section 1(5) stipulate that the facility shall not discontinue procedures previously required in a

Emission Units #01, 06 & 08: Painting Operations (EU01, EU06 and EU08)

nonattainment area to achieve the NAAQ. This requires the 20 tpy limit which previously precluded 401 KAR 59:225 to remain in place. At such a time in the future where the portion of Boone County in which the facility is located may be redesignated as a nonattainment area for any classification other than marginal, this 20 tpy limit would once again preclude 401 KAR 59:225.

401 KAR 63:020, *Potentially Hazardous Matter or Toxic Substances* is not applicable to emissions that are elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality. The painting operations at the facility are subject to 40 CFR 63, Subpart HHHHHH. Therefore, 401 KAR 63:020 is not applicable to these emission units.

Emission Unit #23 Crystal Clean Model 1678 Cold Cleaner (EU23)
Emission Unit #24 Crystal Clean Model 1683 Paint Gun Cold Cleaner (EU24)

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
Combined HAP	Source-wide 22.5 tpy	To preclude 401 KAR 52:020	Material Balance & MSDS	Monthly emission calculations and a new rolling 12-month total

Initial Construction Date: 2025

Process Description: Solvent cleaning of metal parts

Applicable Regulation:
401 KAR 59:185, *New solvent metal cleaning equipment.* This regulation is applicable because the equipment is located in Boone County and commenced operation on or after June 29, 1979.

State-Origin Requirement:
401 KAR 63:020, *Potentially hazardous matter or toxic substances*. This regulation is applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances, provided such emissions are not elsewhere subject to the provisions of the administrative regulations of the Division for Air Quality. This regulation applies only to EU 24 because EU 23 does not have the potential to emit HAPs or toxic air pollutants.

Comments:
Solvent for EU 23 contains no HAPs/Toxics, Solvent for EU 24 does contain HAPs.

Emission Unit #25 One Natural Gas Fired Emergency Spark Ignition (SI) Reciprocating Internal Combustion Engine (RICE) (EU25)				
Pollutant	**Emission Limit**	**Regulatory Basis for Emission Limit or Standard**	**Emission Factor Used and Basis**	**Compliance Method**
HC + NO_x	12.1 g/KW-hr	40 CFR 60, Subpart JJJJ	NO_X: 4161.6 lb/MMscf CO: 323.34 lb/MMscf AP-42 Ch 3.2	Assumed when using certified engine
NMHC + NO_x	11.3 g/KW-hr			
CO	610 g/KW-hr			
VOC	Source-wide 90 tpy	To preclude 401 KAR 52:020	120.36 lb/MMscf AP-42 Ch 3.2	Monthly emission calculations and a new rolling 12-month total
Individual HAP	Source-wide 9.0 tpy	To preclude 401 KAR 52:020	AP-42 Ch 3.2	Monthly emission calculations and a new rolling 12-month total
Combined HAP	Source-wide 22.5 tpy	To preclude 401 KAR 52:020	AP-42 Ch 3.2	Monthly emission calculations and a new rolling 12-month total

Initial Construction Date: 2025

Process Description: Emergency generator for back-up power.

Applicable Regulation:
401 KAR 60:005 Section 2(2)(pppp), 40 C.F.R. 60.4230 through 60.4248, Tables 1 through 4 (Subpart JJJJ), *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.*

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 Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.*

Comments:

Make:	Briggs and Stratton, Model 40321
Power Output Rated Capacity:	13.41 HP
Model Year:	2009
Manufacture Date:	August 2009
Total Displacement:	>225cc, Class II engine
EPA Certification:	Phase 2
EPA Certification Number:	BSX-NRSI-09-35

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 of VOC emissions	401 KAR 52:030, *Federally-enforceable permits for nonmajor sources*	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
20 tpy of combined VOC emissions	401 KAR 50:012 Section 1(5)	01, 06, 08

Table B - Summary of Applicable Regulations:

Applicable Regulations	Emission Unit
401 KAR 50:012, General Application, Section 1(5).	01, 06, 08
401 KAR 59:010, New process operations	01, 06
401 KAR 59:185, New solvent metal cleaning equipment.	23, 24
401 KAR 60:005 Section 2(2)(pppp) 40 C.F.R. 60.4230 through 60.4248, Tables 1 through 4 (Subpart JJJJ), Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.	25
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 Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.	25
401 KAR 63:002, Section 2(4)(iiiii) 40 C.F.R. 63.11169 to 63.11180, Table 1 (Subpart HHHHHH), National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources.	01, 06, 08
401 KAR 63:020, Potentially hazardous matter or toxic substances	24

Table C - Summary of Precluded Regulations:

Precluded Regulations	Emission Unit
401 KAR 52:020, *Title V permits.*	Source-wide

SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS (CONTINUED)

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 March 30, 2026 of potentially hazardous matter or toxic substances (Ethyl Benzene, Formaldehyde, Methanol, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Toluene, and 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 ensure 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
F-16-031	Initial	APE20160002	5/19/2016	7/8/2016	Initial Construction Permit	N/A
F-16-031 R1	Minor Revision	APE20170001	5/8/2017	5/30/2017	Minor revision to add 2 cold cleaners	N/A
F-16-031 R2	Sig Revision	APE20190002	6/5/2019	12/21/2019	Significant Revision to change source-wide VOC limit from 20 tpy to 90 tpy, maintain 20 tpy VOC limit for affected facilities subject to 401 KAR 59:225. EU 03 and EU 05 removed	N/A
F-21-004	Cond Major Renewal	APE20200001	2/16/2021	7/18/2021	Renewal Permit	N/A
F-21-004 R1	Admin Amend	APE20250002	2/4/2025	2/27/2025	Name Change	N/A
F-21-004 R2	Minor Revision	APE20250003	9/2/2025	12/19/2025	Remove EP 20. Add EP 23, 24 and 25. Remove 1,6-Hexamethylene Diisocyanate Source-wide limit.	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 Compound