Commonwealth of Kentucky
Division for Air Quality

STATEMENT OF BASIS / SUMMARY

Conditional Major, Construction/Operating
Permit: F-25-036

Mubea, Inc.
8283 Dixie Highway
Florence, KY 41042

September 10, 2025
Nathan Cox, Reviewer

SOURCE ID:	21-015-00124
AGENCY INTEREST:	48936
ACTIVITY:	APE20250001

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SECTION 1 – SOURCE DESCRIPTION

SIC Code and description:
3399, Primary Metal Products (8299 Dixie Hwy)
3495, Wire Springs (8200 Dixie Hwy, 8224 Dixie Hwy, 8252 Dixie Hwy)
3599, Industrial & Commercial Machinery & Equipment (8212 Dixie Hwy)
4225, General Wareshousing & Storage (8283 Dixie Hwy, 7130 New Buffington Rd)

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):

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

*PTE does not include self-imposed emission limitations.

Description of Facility:
Mubea designs, manufactures and conducts tests of suspension, brake and valve springs, stabilizer bars and hose clamps for automotive use, distribution of hose clamps and disc spring, as well as stamping of Tailor rolled blank material in the following 7 buildings, considered one combined source for permitting purposes:
8200 Dixie Hwy (Coil Spring Wire)
8212 Dixie Hwy (Coil Spring Development, Tool Shop, Disc Springs)
8224 Dixie Hwy (Coil Springs)
8252 Dixie Hwy (Hose Clamps)
8283 Dixie Hwy (Miscellaneous)
7130 New Buffington Road (Miscellaneous)

SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

Permit Number: F-25-036 Activity: APE20250001

Application Received: July 10, 2025 Application Complete Date(s): August 20, 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

APE20240001 *Approval issued on July 14, 2025*

- Remove from Building 8252 Insignificant Activities #10 through #35 and #38 through #39
- Add to Building 8252 Heat Line 13 (an insignificant activity)
- Add to Building 8252 Draw Line 7 (now identified as Draw Line 1) with grinding
- Add to Building 8299 Laser Weld Cell (an insignificant activity)

APE20230001 *Approval issued on August 29, 2023*

- Replace from Building 8200 EP4B Tool Rack Maintenance Degreaser (80 gallon) with EP4H Tool Rack Maintenance Degreaser (150 gallon)

Description of Action:

APE20250001

- Remove Draw Line 2 shot peen blasters in Building 8200 from EP03;
- Remove TSS and TSB Lines shot peen blasters in Building 8252 from EP03;
- Add 8224 Coiling Line 2 Shot Peen and Fine Peen blast operations to EP03;
- Remove EP11 Diesel Fuel Fired Emergency Generator (Building 8283);
- Remove EP12 Diesel Fuel Fired Emergency Fire Pump Engine (Building 8283);
- Add EP14 One Natural Gas Fired Emergency Spark Ignition (SI) reciprocating Internal Combustion Engine (RICE) (Building 8224);
- Correct that EP13 Building 8224 backup generator was previously incorrectly identified as a 70 hp engine but is instead a 112.2 hp engine;
- Add Heat Line 14 at Building 8252 (an insignificant activity);
- Remove HAP annual limits due to source's PTE no longer exceeding major source thresholds for annual HAP emissions.

F-25-036 Emission Summary				
Pollutant	2024 Actual (tpy)	PTE F-20-036 R2 (tpy)	Change (tpy)	PTE F-25-036 (tpy)
CO	7.4	49.2	-11.6	37.6
NOx	8.8	64.1	-16.5	47.6
PT	0.7	6.9	10.6	17.5
PM_{10}	0.7	6.9	10.6	17.5
$PM_{2.5}$	0.7	6.9	10.6	17.5
SO_2	0.5	0.82	-0.3	0.52
VOC	5.9	16.2	-0.8	15.4
Lead	0	0	0	0
Greenhouse Gases (GHGs)				
Carbon Dioxide	10,593	66,635	4,789	52,588
Methane	0.20	1.27	0.07	0.99
Nitrous Oxide	0.19	1.22	-1.09	0.10
CO_2 Equivalent (CO_2e)	10,656	67,030	4,465	52,642
Hazardous Air Pollutants (HAPs)				
Hexane	0	0	0.79	0.79
Combined HAPs:	0.21	0.52	0.95	1.47

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

Emission Point #02 Hose Clamp Dip and Spin Operations				
Pollutant	**Emission Limit or Standard**	**Regulatory Basis for Emission Limit or Standard**	**Emission Factor Used and Basis**	**Compliance Method**
VOC	Source-wide 50 tpy	401 KAR 52:030	Material Balance & SDS	Monthly recordkeeping, 12-month rolling total
	85% control	401 KAR 50:012, Section 1(5)	Material Balance & SDS. 100% capture Permanent Total Enclosure	RTO-1, Testing once every 5 years. Pressure differential through the enclosure 0.007 in H_2O

Initial Construction Date: 2010

Process Description:
Dip and Spin Operations consist of a Dip and Spin booth with one natural gas dry oven. This operation is a batch operation, automatic miscellaneous metal parts (hose clamps) surface coating process. The hose clamps receive two coats: a basecoat and topcoat. The parts are placed in a steel mesh basket (bin) and dipped into the paint. After dipping the parts, the basket is lifted above the paint liquid (remaining in the tank) and spun to remove excess paint. The coated parts are cured in a total of 3.3 MMBtu/hr natural gas-fired drying oven and a curing zone. Located at 8252 building.

EP MP1: **Dip and Spin coating operation**
Control equipment: Regenerative thermal oxidizer (RTO-1) Tann
Destruction Efficiency: 98.3% at 1557° tested on June 8, 2023
Rated capacity: 0.75 MMBTU/hr

EP MP2: **Dip and Spin Line Curing Zone**
Fuel: Natural gas
Rate capacity: 1.15 MMBTU/hr

EP MP3: **Dip and Spin Line Dry Oven**
Fuel: Natural gas
Rate capacity: 2.15 MMBTU/hr

Applicable Regulations:
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 63:020, *Potentially hazardous matter or toxic substances* applies because the operation has the potential to emit hazardous air pollutants or toxic air pollutants which may be harmful to the health and welfare of humans, animals, and plants. The process has the potential to emit hazardous air pollutants and/or toxic air pollutants from both the evaporation of solvents in the coating process and the combustion of natural gas to fuel the curing zone and drying oven. These emissions are subject to 401 KAR 63:020.

Emission Point #02 Hose Clamp Dip and Spin Operations

Comments:
Basecoat contains 4.93 lbs VOC/gallon. Topcoat contains 6.5 lbs VOC/gallon. VOC emissions shall be controlled pursuant to the limit that previously applied under 401 KAR 59:225 since exemptions in section 6 cannot be met.

The enclosure is identified as a Permanent Total Enclosure (PTE) through EPA Method 204. The permittee shall maintain a pressure differential of at least 0.007 inches of water into the enclosure.

401 KAR 59:225, *New miscellaneous metal parts and products surface coating operation,* Hose Clamp Dip and Spin Operation **EP 02** 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). 401 KAR 59:225 is applicable to nonattainment for ozone except marginal. Therefore, the dip and spin coating booth is not subject to 401 KAR 59:225; however, the anti-backsliding requirements of 401 KAR 50:012, Section 1(5) stipulate that the procedures previously required by 401 KAR 59:225 be continued for the dip and spin coating that were subject to this regulation. This is why the RTO cannot be removed and 85% control of VOC must still be maintained.

Emission Point #03 All Shot Peen Blasters in the facility				
Pollutant	**Emission Limit or Standard**	**Regulatory Basis for Emission Limit or Standard**	**Emission Factor Used and Basis**	**Compliance Method**
PM	20% opacity	401 KAR 59:010, Section 3(1)	N/A	Weekly visual observation and U.S. EPA Reference Method 9 if needed
	2.34 lbs/hr Process weight rates P ≤ 30 tons/hour: $E=3.59P^{0.62}$ Process weight rates P > 30 tons/hour: $E=17.31P^{0.16}$	401 KAR 59:010, Section 3(2)	AP-42 Chapter 13.2.6-Abrasive Blasting. Emission factor for steel shot blasting assumed to be 10% of that for sand blasting	Integral Cartridge filters with 99.97% control effectiveness for PM

Initial Construction Date: *see below*

Process Description:
Emissions are from shot blasting. 5 units located in building 8200, Integral control device: filter Ultra Web cartridge with nano-fiber technology with 99.9% efficiency with each unit. Units exhaust indoors. Total PM control effectiveness from filters and exhausting indoors is 99.97%.

Shotpeen 8200:
Draw Line 3: 1998
Draw Line 4: 1998
Draw Line 5: 1999
Draw Line 6: 2023

14 units located in building 8212/8224, Integral control device: filter Ultra Web cartridge with nano-fiber technology with 99.9% efficiency with each unit. Units exhaust indoors. Total PM control effectiveness from filters and exhausting indoors is 99.97%.

Building 8212/8224:

Shotpeen	**Stresspeen**	**Finepeen**
1.Coiling Line 1: 2001	1.Coiling Line 3: 2004	1.Coiling Line 1: 2015
2.Coiling Line 2: 2025	2.Coiling Line 3: 2004	2.Coiling Line 2: 2025
3.Coiling Line 3: 2003	3.Coiling Line 4: 2004	3.Coiling Line 5: 2015
4.Coiling Line 4: 2005	4.Coiling Line 4: 2004	4.Coiling Line 6: 2015
5.Coiling Line 5: 2015		
6.Coiling Line 6: 2015		

3 units located in building 8252, Integral control device: filter Ultra Web cartridge with nano-fiber technology with 99.9% efficiency with each unit. Units exhaust indoors. Total PM control effectiveness from filters and exhausting indoors is 99.97%.

Emission Point #03 All Shot Peen Blasters in the facility

Shotpeen 8252:
Draw Line 1: 2025
HC Line1: 2001
HC Line 2: 1997

Applicable Regulations:
401 KAR 59:010, *New process operations.* This regulation is applicable because the process has the potential to emit particulate matter and was commenced after July 2, 1975.

State Origin Requirement
401 KAR 63:020, *Potentially hazardous matter and toxic substance emissions,* applies 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.

Comments:
401 KAR 63:002 Section 2(4)(vvvvv), 40 C.F.R. 63.11514 through 63.11523, Tables 1 through 2 (Subpart XXXXXX), *National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories* does not apply to the facility shot peen blasters since the source SIC/NAICS codes are not the targeted source types by the regulation.

Hourly throughput of all blasters is 1750 tons. Emission factor for PM is 5.4 lbs PM/PM10 per ton throughput. PM emission factor sourced from AP-42 Chapter 13.2.6-Abrasive Blasting with the PM emission factor for steel shot blasting assumed to be 10% of emission factor for sand blasting. The Manganese emission factor is assumed to be 1.2% of PM emission factor based on Manganese content of the steel shot listed in the material SDS. The Manganese emissions are controlled by the filters.

Emission Point #04C	**8224 Maintenance Parts Washer 1**			
Emission Point #04F	**8224 Maintenance Parts Washer 2**			
Emission Point #04G	**8299 Maintenance Parts Washer**			
Emission Point #04H	**Tool Rack Maintenance Degreaser**			
Pollutant	**Emission Limit or Standard**	**Regulatory Basis for Emission Limit or Standard**	**Emission Factor Used and Basis**	**Compliance Method**
VOC	Source-wide 50 tpy	401 KAR 52:030	Material Balance & MSDS	Monthly recordkeeping, 12-month rolling total

Initial Construction Date: 2022, 2022, 2021, 2023

Process Description:
EP4C 8224 Maintenance Parts Washer 1
EP4F 8224 Maintenance Parts Washer 2
EP4G 8299 Maintenance Parts Washer
EP4H Tool Rack Maintenance Degreaser (located at 8200 Dixie Highway)

Applicable Regulations:
401 KAR 59:185, *New solvent metal cleaning equipment* is applicable because the facility is located in Boone county, and the operations of the degreasers were commenced after June 29, 1979.

State Origin Requirement
401 KAR 63:020, *Potentially hazardous matter and toxic substance emissions,* applies 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.

Comments:
The solvent used must have a vapor pressure that does not exceed one (1.0) mm Hg (0.019 psi) measured at 20° C (68° F) [401 KAR 59:185].

Emission Point #05 Seven Annealing Process/Furnaces				
Pollutant	**Emission Limit or Standard**	**Regulatory Basis for Emission Limit or Standard**	**Emission Factor Used and Basis**	**Compliance Method**
VOC	Source-wide 50 tpy	401 KAR 52:030	5.5 lb/MMscf AP-42 Section 1.4	Monthly recordkeeping, 12-month rolling total

Initial Construction Date: 2014 (1, 2 and 3), 2017 (4), 2018 (5 & 6), 2019 (7)

Process Description:
Batches of metal parts are loaded into the hydrogen annealing furnace and heated for up to 18 hours in an enclosed furnace. Parts then remained in the furnace and cooled by indirect cooling water for 12~16 hours. Located at 8299 Dixie Highway. 4.78 million British thermal units per hour (MMBtu/hr) per furnace, natural gas.

Applicable Regulations:
401 KAR 63:020, *Potentially hazardous matter and toxic substance emissions,* applies 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. [**State Only Requirement]**

Comments:
The annealing operation consists of fourteen actual furnace bases, all of which have the capability to heat with natural gas. However, due to the long heating and cooling cycles involved in this process, there are only seven heating bells and seven cooling bells available at any given time. This limits the true capacity for the annealing operation to the number of heating bells available, not the number of furnace bases available. Batch times for heating and cooling are very long and variable so a maximum capacity of 8760 hours per year is used for simplicity. The emissions are from natural gas combustion.

Emission Point #06 Diesel Fuel-Fired Emergency Fire Pump				
Pollutant	**Emission Limit or Standard**	**Regulatory Basis for Emission Limit or Standard**	**Emission Factor Used and Basis**	**Compliance Method**
NMHC + NOx	10.5 g/KW-hr (7.8 g/HP-hr)	Table 4 to 40 CFR 63 Subpart IIII	617.4 lb/1000 gal AP-42 Chapter 3.3	Purchasing an engine certified to the emission standards in 40 CFR 60.4205(c).
CO	3.5 g/KW-hr (2.6 g/HP-hr)		133 lb/1000 gal AP-42	
PM	0.54 g/KW-hr (0.4 g/HP-hr)		43.4 lb/1000 gal AP-42 Chapter 3.3	
VOC	Source-wide 50 tpy	401 KAR 52:030	49 lb/1000 gal AP-42 Chapter 3.3	Monthly recordkeeping, 12-month rolling total

Initial Construction Date: 2014

Process Description:
Fire pump for emergency use only.

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

401 KAR 63:002 Section 2(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.* Pursuant to 40 CFR 63.6590 (c)(1), a new stationary RICE located at an area source must meet the requirements of Subpart ZZZZ by meeting the requirements of CFR part 60 subpart IIII, for compression ignition engines. No further requirements apply for such engines under Subpart ZZZZ.

Comments:
Rated Capacity: 275 horsepower, 205 Kw
Displacements: 5.9 liters/cylinder
Manufactured Date: September 2006
Fuel: Diesel

Emission Point #08 Boilers				
Pollutant	**Emission Limit or Standard**	**Regulatory Basis for Emission Limit or Standard**	**Emission Factor Used and Basis**	**Compliance Method**
PM (lb/MMBtu)	0.50 (08-01) 0.50 (08-03) 0.54 (08-04) 0.50 (08-06)	401 KAR 59:015, Section 4(1)	7.6 lb/MMscf AP-42 Chapter 1.4	Assumed based on combustion of natural gas
PM	20% Opacity	401 KAR 59:015, Section 4(2)	N/A	Assumed based on combustion of natural gas
SO_2 (lb/MMBtu)	2.49 (08-01) 2.50 (08-03) 2.86 (08-04) 2.49 (08-06)	401 KAR 59:015, Section 5(1)	0.6 lb/MMscf AP-42 Chapter 1.4	Assumed based on combustion of natural gas

Initial Construction Date: 2014 (08-04), 2018 (08-01 and 08-06), 2021 (08-03),

Process Description:

Unit Number	Description	Capacity (mmBTU/hr)	Construction Date	Location
08-01	Hot Water Boiler	3	2018; Reconstructed 2022	8224 Dixie
08-03	Pretreat Line Boiler #2	3	2021	8224 Dixie
08-04	Pretreat Line Boiler #3	3	2014	8224 Dixie
08-06	Galvanizing process boiler	1.5	2018	8299 Dixie

Applicable Regulation:
401 KAR 59:015, *New Indirect Heat Exchangers*.

State Origin Requirement
401 KAR 63:020, *Potentially hazardous matter and toxic substance emissions,* applies 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.

Comments:
Limits for 08-04 based on source wide heat input capacity of 11.156 MMBtu/hr. Limits for 08-01, 08-06 based on source wide heat input capacity of 15.656 MMBtu/hr. Limit for 08-03 based on source wide heat input capacity of 15.488 MMBtu/hr. Refer to **Appendix B** for a more detailed history of indirect heat exchangers and the determination of limits for each at the facility.

08-01 was reconstructed and moved from 6800 Industrial to 8224 Dixie in 2022.

Emission Point #13 One Natural Gas Fired Emergency Spark Ignition (SI) Reciprocating Internal Combustion Engine (RICE) (Building 8224)
Emission Point #14 One Natural Gas Fired Emergency Spark Ignition (SI) Reciprocating Internal Combustion Engine (RICE) (Building 8299)

Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
VOC	Source-wide 50 tpy	401 KAR 52:030	5.5 lb/MMscf AP-42 Chapter 3.2	Monthly recordkeeping, 12-month rolling total

Initial Construction Date: EP13: 2012; EP14: 2025

Process Description:
EP13:
Power Output Rated Capacity: 112.2 HP
Displacement: 6.8 L
Cylinders: 10
Model: Cummins/Onan 70GGHF
Model Year: 2012
Manufacture Date: 2012
Construction Date: 2012

EP14:
Power Output Rated Capacity: 167.2 HP
Displacement: 6 L
Cylinders: 6
Model: Cummins C100N6
Manufacture Date: 2018
Construction Date: 2025

Applicable Regulations:
401 KAR 60:005, Section 2(2)(eeee), 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.* Pursuant to 40 CFR 63.6590 (c)(1), a new stationary RICE located at an area source must meet the requirements of Subpart ZZZZ by meeting the requirements of CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under Subpart ZZZZ

Comments:
None.

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
EP 02	RTO-1	VOC DRE	401 KAR 59:225	Initial and every 5 years	Method 25A	85%	95.8%	Combustion Temperature 1603 °F	CMN20110001	5/25/2011
EP 02	RTO-1	VOC DRE	401 KAR 59:225	Initial and every 5 years	Method 25A	85%	97.9%	Combustion Temperature 1399 °F	CMN20120001	10/5/2012
EP 02	RTO-1	VOC Capture	None	Initial	Method 204	N/A	100% (PTE)	>0.007 in. of water	CMN20120001	10/5/2012
EP 02	RTO-1	VOC DRE	401 KAR 59:225	Initial and every 5 years	Method 25A	85%	98.9%	Combustion Temperature 1561 °F	CMN20170001	5/18/2017
EP 10	RTO-2	VOC Capture	None	Initial	Method 204 or alternative	N/A	75% estimate by source	N/A	CMN20170002	6/29/2017
EP 10	RTO-2	VOC DRE	None	Initial and every 5 years	Method 25A	N/A	99.97%	Combustion Temperature 1374 °F	CMN20170002	6/29/2017
EP 02	RTO-1	VOC DRE	401 KAR 59:225	Initial and every 5 years	Method 25A	85%	98.9%	Combustion Temperature 1483 °F Duct Static Pressure 1.45 in water	CMN20180001	6/12/2018

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
EP02	RTO-1	VOC DRE	401 KAR 50:012, Section 1(5)	Initial and every 5 years	Method 25A	85%	98.3%	Combustion Temperature 1557 °F	CMN2023001	6/8/2023

SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS

Table A - Group Requirements:

Emission and Operating Limit	Regulation	Emission Unit
50 tpy of VOC emissions	401 KAR 52:030, *Federally-enforceable permits for nonmajor sources*	Source-wide

Table B - Summary of Applicable Regulations:

Applicable Regulations	Emission Unit
401 KAR 50:012, Section 1(5).	EP02A
401 KAR 59:010, *New process operations.*	EP03
401 KAR 59:015, *New indirect heat exchangers.*	EP08
401 KAR 59:185, *New solvent metal cleaning equipment*	EP4C EP4F EP4G EP4H
401 KAR 63:020, *Potentially hazardous matter or toxic substances.*	EP02A EP03 EP4C EP4F EP4G EP4H EP05 EP08
401 KAR 60:005 Section 2(2)(dddd), 40 C.F.R. 60.4200 through 60.4219, Tables 1 through 8 (Subpart IIII), *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*	EP06 EP13 EP14
401 KAR 60:005 Section 2(2)(eeee), 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*	EP13 EP14
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.*	EP06

Table C - Summary of Precluded Regulations:

N/A

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 of potentially hazardous matter or toxic substances that may be emitted by the facility based upon the process rates, material formulations, stack heights and other pertinent information provided by the applicant using SCREEN View on September 4, 2025 (Chromium III, Chromium, Formaldehyde, Hexane; N-Hexane, Methyl Isobutyl Ketone, Nickel, Toluene, and Xylenes) and AERMOD on September 5, 2025 (Manganese). 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-10-038	Initial	APE20100002	9/1/2010	12/15/2010	Initial Conditional Major Permit	N/A
F-10-038 R1	Revision	APE20110002	12/6/2011	5/2/2012	EP01 has been deleted	N/A
F-10-038 R2	Minor Revision	APE20140001	5/13/2014	10/27/2014	Addition of Annealing Furnace Fire Pump, and Emulsion Process	N/A
F-15-031	Renewal	APE20150002	8/16/2015	2/4/2016	Renewal Only	N/A
F-15-031 R1	Revision	APE20160001	5/24/2016	9/27/2016	Minor Revision to add IAs and EP09	N/A
F-15-031 R2	Revision	APE20160002	10/13/2016	1/5/2017	Sig Revision to add EP10 and HAP Limits	N/A
F-15-031 R3	Revision	APE20170001	7/13/2017	8/28/2017	Minor Revision to add IAs and EP05 (1 new furnace)	N/A
F-15-031 R4	Revision	APE20180002	2/7/2018	5/5/2018	Minor Revision to add EP05 (2 new furnaces)	N/A
F-15-031 R5	Revision	APE20190001	1/28/2019	3/2/2019	Minor Revision to add an induction heating coil to EP09	N/A
F-20-036	Renewal/ Minor Revision	APE20200001 APE20200002	8/31/2020 11/19/2020	3/7/2021	Renewal, added EP 11, 12 & 13. Mnr Revision, re add induction heating to EP09	N/A
F-20-036 R1	Minor Revision	APE20210001	8/2/2021	1/11/2022	Replace boiler (08-03), add Steel Cutting operation, remove shotpeen 3 of EP03, replace shotpeen TSS2 of EP03 with TSB6	N/A
F-20-36 R2	Minor Revision	APE20220001	10/17/2022	3/7/2023	Reconstruct boiler (08-01), remove all shot peen operations at 6800 industrial (some of EP03), EP07, EP08-5, EP09, EP10 and associated ovens and RTO, and insignificant activities at 6800 Industrial.	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

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)
08-01	Natural Gas	3	2018	Reconstructed and moved in 2022 to a different building to replace 08-02.	Section 4(1)(c)	15.656	Section 5(1)(c)2.	15.656
08-02	Natural Gas	3.168	2004	Removed in 2022. Replaced by the moved/reconstructed 08-01.	Section 4(1)(a)	< 10	Section 5(1)(a)1.	< 10
08-03	Natural Gas	3.168	2001	Replaced in 2021	Section 4(1)(a)	< 10	Section 5(1)(a)1.	< 10
		3	2021	N/A	Section 4(1)(c)	15.488	Section 5(1)(c)2.	15.488
08-04	Natural Gas	3	2014	N/A	Section 4(1)(c)	11.156	Section 5(1)(c)2.	11.156
08-05	Natural Gas	1.82	1996	Removed in 2022	Section 4(1)(a)	< 10	Section 5(1)(a)1.	< 10
08-06	Natural Gas	1.5	2018	N/A	Section 4(1)(c)	15.656	Section 5(1)(c)2.	15.656