

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

Conditional Major, Operating  
Permit: F-24-011  
Logan Corporation, Inc.  
124 Ward Road  
Salyersville, KY 41465  
March 4, 2024  
Qinyi Wang, Reviewer

SOURCE ID: 21-153-00031  
AGENCY INTEREST: 2870  
ACTIVITY: APE20240001

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## SECTION 1 – SOURCE DESCRIPTION

SIC Code and description: 3713: Truck and Bus Bodies

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: Magoffin

Nonattainment Area  N/A  PM<sub>10</sub>  PM<sub>2.5</sub>  CO  NO<sub>x</sub>  SO<sub>2</sub>  Ozone  Lead

PTE\* greater than 100 tpy for any criteria air pollutant  Yes  No

If yes, for what pollutant(s)?

PM<sub>10</sub>  PM<sub>2.5</sub>  CO  NO<sub>x</sub>  SO<sub>2</sub>  VOC

PTE\* greater than 250 tpy for any criteria air pollutant  Yes  No

If yes, for what pollutant(s)?

PM<sub>10</sub>  PM<sub>2.5</sub>  CO  NO<sub>x</sub>  SO<sub>2</sub>  VOC

PTE\* greater than 10 tpy for any single hazardous air pollutant (HAP)  Yes  No

If yes, list which pollutant(s): Ethyl Benzene, Methyl Isobutyl Kentone, Toluene, Xylenes

PTE\* greater than 25 tpy for combined HAP  Yes  No

\*PTE does not include self-imposed emission limitations.

### Description of Facility:

Logan Corporation, Inc. makes and refurbishes custom dump truck beds. The source consists of paint booths for coating metal parts, paint mixing and clean-up areas, metal machining and fabrication areas, abrasive blasting and a haul road leading to/from the facility from KY Highway 460.

**SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM**

Permit Number: F-24-011

Activities: APE20240001

Received: January 10, 2024

Application Complete Date(s): February 27, 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:**

APE20240001: Cond Mjr-Renewal

On January 10, 2024, an application was received from Logan Corporation, Inc. for a renewal of their currently conditional major permit (F-18-061) expiring on July 11, 2024 for their manufacturing facility in Magoffin County, KY, which is in attainment for criteria air pollutants, pursuant to 401 KAR 51:010. The facility is requesting to add IA 06 (Abrasive Blasting Operation)

Emission Summary for F-24-011		
Pollutant	2023 Actual <sup>1</sup> (tpy)	PTE F-24-011 (tpy)
CO	N/A	0.00
NOx	N/A	0.00
PT	0.0070	0.52
PM <sub>10</sub>	0.0070	0.59
PM <sub>2.5</sub>	0.0054	0.42
SO <sub>2</sub>	N/A	0.00
VOC	4.74	476.24*
Lead	N/A	8.96E-05
Greenhouse Gases (GHGs)		
Carbon Dioxide	N/A	0.00
Methane	N/A	0.00
Nitrous Oxide	N/A	0.00
CO <sub>2</sub> Equivalent (CO <sub>2</sub> e)	N/A	0.00
Hazardous Air Pollutants (HAPs)		
Combined HAPs:	N/A	180.46*
Cumene	0.01	1.02
Ethyl Benzene	0.17	16.39*
Methanol	0.029	1.80
Methyl Isobutyl Ketone	0.17	14.83*
Toluene	0.73	71.81*
Xylenes (Total)	0.76	74.19*

<sup>1</sup> Actual Emissions are from the Kentucky Division for Air Quality 2023 Emission Inventory Report  
 \*Emissions limited by federally-enforceable emission limitations to ensure the source remains below major source thresholds.

**SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS**

<b>Emission Unit: 001 – 004: Spray Coating Operation</b>				
<b>Pollutant</b>	<b>Emission Limit or Standard</b>	<b>Regulatory Basis for Emission Limit or Standard</b>	<b>Emission Factor Used and Basis</b>	<b>Compliance Method</b>
VOC	Source wide 90 tpy	To preclude 401 KAR 52:020 & 401 KAR 51:017	Material Balance & MSDS	Monthly emission calculations and a new rolling 12-month total
Individual HAP	Source wide 9 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
Ethyl Benzene	Source wide 4.50 tpy	401 KAR 63:020, Section 3	Material Balance & MSDS	Monthly recordkeeping, 12-month rolling total
PM	2.34 lb/hr	401 KAR 59:010, Section 3(2)	Material Balance & MSDS with 60% Transfer Efficiency	Mat or Panel Filter (99.8% C.E.)
	< 20% opacity	401 KAR 59:010, Section 3(1)a	N/A	Recordkeeping of weekly visual observations and differential pressure

**Initial Construction Date:** 9/2015, 12/2016, 1/2015, 1/2015

**Process Description:**

Steel sheeting and bars are delivered to the facility by truck. As needed raw materials are cut to size and moved to body jigs for assembly. Frames and beds are welded and assembled into beds. As parts are completed they are moved to paint booths for individual coating.

**Applicable Regulation:**

**401 KAR 59:010**, *New Process Operations*.

**State-Origin Requirements:**

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

**Precluded Regulations:**

**401 KAR 51:017**, *Prevention of Significant Deterioration of Air Quality*.

**401 KAR 52:020**, *Title V Permits*.

**401 KAR 63:002, Section (rrr)**, 40 CFR. 63, Subpart MMMM, *National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products*. This regulation is precluded since the facility has requested a limitation of 9 tpy single HAP or 22.5 tpy combined HAPs which would not be as a major source.

**Emission Unit: 001 – 004: Spray Coating Operation**

**Comments:**

001 Spray booth #1 material throughputs: Primer/Basecoat maximum throughput: 5.625 gallon/hr, Topcoat: 1.608 gallon/hr, Reducer: 1.126 gallon/hr, Activator: 1.406 gallon/hr, Additives: 1.748 gallon/hr.

002 Spray booth #2 material throughputs: Primer/Basecoat maximum throughput: 5.625 gallon/hr.

003 Spray booth #3: Paint/Topcoat maximum throughput: 5.625 gallon/hr.

004 Spray coating clean out, Lacquer thinner used for Spray gun clean out and maximum material throughputs: 0.294 gallon/hr.

401 KAR 63:002, Section 2(4)(iiii), 40 CFR 63, Subpart HHHHHH, National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources is not applicable since the facility does not use coatings with the target HAPs (chromium, lead, manganese, nickel or cadmium).

401 KAR 59:225, New miscellaneous metal parts and products surface coating operations does not apply, because the source is not a major source nor located in a county designated as nonattainment for ozone. Source also meets the exemptions under Section 6(2)(b) and Section 6(2)(c).

**Emission Unit: IA 02 GMA welding (27 units)  
Insignificant Activity**

**Initial Construction Date:** 2015

**Process Description:**

The facility conducts metalworking operations for bed construction. There are a total of 27 GMAW units on site, using two different types of wire.

**Applicable Regulation:**

**401 KAR 59:010**, *New Process Operations*

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

**Comments:**

Maximum throughput of 0.0124 tons/hour. Emissions controlled by enclosure. 401 KAR 63:002, Section (vvvvv), 40 CFR 63, Subpart XXXXXX, National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories is not applicable as the facility does not appear in the list of applicable SIC codes.

**Emission Unit: IA 06 Abrasive Blasting  
Insignificant Activity**

**Initial Construction Date:** 4/2021

**Process Description:**

The facility began operation of a Wheelabrator abrasive blasting cabinet. Abrasive Blasting using steel shot. A dust collector is attached to control the emission of particulate matter.

**Emission Unit: IA 06 Abrasive Blasting  
Insignificant Activity**

**Applicable Regulation:**

**401 KAR 59:010**, *New Process Operations*

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

**Comments:**

Max capacity is 1.54E-03 tons/hr. Emission is controlled by dust collector with an assumed 98.00% control efficiency. The cleaned air from the dust collector is exhausted through the fan outlet vent to the atmosphere.



**SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS**

**Table A - Group Requirements:**

<b>Emission and Operating Limit</b>	<b>Regulation</b>	<b>Emission Unit</b>
90 tpy of VOC emissions	To preclude 401 KAR 52:020 & 401 KAR 51:017	Source-wide
9.0 tpy of individual HAP emissions	To preclude 401 KAR 52:020	Source-wide
22.5 tpy of combined HAP emissions	To preclude 401 KAR 52:020	Source-wide
4.50 tpy of Ethyl Benzene emissions	401 KAR 63:020, <i>Potentially hazardous matter or toxic substances</i>	Source-wide

**Table B - Summary of Applicable Regulations:**

<b>Applicable Regulations</b>	<b>Emission Unit</b>
401 KAR 59:010, <i>New Process Operations</i>	EU001~004
401 KAR 63:020, <i>Potentially hazardous matter or toxic substances</i>	EU001~004

**Table C - Summary of Precluded Regulations:**

<b>Precluded Regulations</b>	<b>Emission Unit</b>
401 KAR 52:020, <i>Title V permits</i>	Source-wide
401 KAR 51:017, <i>Prevention of Significant Deterioration of Air Quality.</i>	Source-wide
401 KAR 63:002, Section (rrr), 40 CFR. 63, Subpart Mmmm, <i>National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products.</i>	Source-wide



## SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS (CONTINUED)

**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) has performed modeling using SCREEN View on February 16, 2024 of potentially hazardous matter or toxic substances (Ethyl Benzene, Methyl Isobuty Kentone, Toluene, Xylenes, Cumene, Methyl Methacrylate, Naphthalene, Methanol, Lead, Nickel, Antimony, Arsenic, Beryllium, Cadmium, Chromium III, Cobalt, Selenium, Phosphorus and Manganese) 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 for Air Quality (Division) has performed modeling using AERMOD on February 26, 2024 of potentially hazardous matter or toxic substances (Ethyl Benzene and Naphthalene) 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**

<b>Permit</b>	<b>Permit Type</b>	<b>Activity#</b>	<b>Complete Date</b>	<b>Issuance Date</b>	<b>Summary of Action</b>	<b>PSD/Syn Minor</b>
F-18-061	Initial	APE20180001	12/28/2018	7/11/2019	Initial Operating Permit	Syn Minor

Note 1: F-18-061 was issued under AI 132267 but the two AIs have now been merged.

Note 2: Prior to issuance of F-18-061, the AI 2870 was associated with Joy Mining Machiner – Continental Conveyor Products manufacturing conveyer equipment using operations of metal working, welding and surface coating.

**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 <sub>x</sub>	– Nitrogen Oxides
NSR	– New Source Review
PM	– Particulate Matter
PM <sub>10</sub>	– Particulate Matter equal to or smaller than 10 micrometers
PM <sub>2.5</sub>	– Particulate Matter equal to or smaller than 2.5 micrometers
PSD	– Prevention of Significant Deterioration
PTE	– Potential to Emit
SO <sub>2</sub>	– Sulfur Dioxide
TF	– Total Fluoride (Particulate & Gaseous)
VOC	– Volatile Organic Compounds