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

Conditional Major, Operating PERMIT ID: F-25-018 TRM NRE ACQUISITION LLC 1300 Kentucky Avenue, Paducah, KY 42003 May 20, 2025 Ibrahim Alburai, Reviewer Source ID: 21-145-00019 Agency Interest #: 3077 Activity ID: APE20220001/ APE20230001

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## **SECTION 1 – SOURCE DESCRIPTION**

SIC Code and description: 3743, Railroad Equipment (except locomotive fuel lubricating or cooling medium pumps).

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: McCracken Nonattainment Area If yes, list Classi	I ∑N/A fication:	□ PM <sub>10</sub> □	$PM_{2.5} \square CO \square NO_X \square SO_2 \square Ozone \square Lead$
PTE* greater than 1 If yes, for what p $\square PM_{10} \square PM_{2.5}$	00 tpy for ollutant(s $\Box CO [2]$	r any criteria ₃)? ♂ NO <sub>X</sub> □ S	a air pollutant $\boxtimes$ Yes $\square$ No O <sub>2</sub> $\boxtimes$ VOC
PTE* greater than 2. If yes, for what per $\square$ PM <sub>10</sub> $\square$ PM <sub>2.5</sub>	50 tpy for ollutant(s $\Box CO [2]$	r any criteria )? ♂ NO <sub>X</sub> □ S <sup>i</sup>	a air pollutant $\square$ Yes $\square$ No O <sub>2</sub> $\square$ VOC
PTE* greater than 1 If yes, list which	0 tpy for pollutan	any single h t(s): Ethyl B	azardous air pollutant (HAP) 🛛 Yes 🗌 No Benzene, Toluene and Xylenes (Total)
PTE* greater than 2.	5 tpy for	combined H	IAP 🛛 Yes 🗌 No

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

#### **Description of Facility:**

TRM NRE ACQUISITION LLC specializes in the remanufacture and overhaul of locomotives. Activities at the facility include surface coating operations, steel shot blasting to clean metal parts, sand blasting of locomotive parts and engines, equipment welding, heat treatment of handrails, degreasing operations and testing of locomotive engines. The facility is also equipped with three small industrial boilers (each less than 250 MM Btu/hr), and various insignificant activities.

## SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

 Permit Number: F-22-035
 Activity:
 APE20220001 & APE20230001

 Application Received:
 APE20220001: 6/29/2022 & APE20230001: 9/2/2023
 Application Complete:
 APE20220001: 8/26/2022 & APE20230001: 10/23/2023

Permit Action:  $\Box$  Initial  $\boxtimes$  Renewal  $\Box$  Significant Rev.  $\Box$  Minor Rev.  $\boxtimes$  Administrative Construction/Modification Requested?  $\Box$ Yes  $\boxtimes$ No

Previous 502(b)(10) or Off-Permit Changes incorporated with this permit action  $\Box$ Yes  $\boxtimes$ No

#### **Description of Action:**

- APE20220001: Renewal permit with no change.
- APE20230001: Administrative Amendment: Permittee name change

Pollutant	2024 Actual (tpy)	PTE F-25-018 (tpy)
СО	0.273	77.68
NO <sub>X</sub>	0.325	311.78*
РТ	0.188	49.35
PM <sub>10</sub>	0.188	49.35
PM <sub>2.5</sub>	0.147	21.93
SO <sub>2</sub>	0.002	7.20
VOC	0.429	1,065.25*
Lead	0	0.013
	Greenhouse Gases (GHGs)	
Carbon Dioxide	390.0	109,483
Methane	0.008	2.063
Nitrous Oxide	0.007	0.206
CO <sub>2</sub> Equivalent (CO <sub>2</sub> e)	392.286	109,596
	Hazardous Air Pollutants (HAI	Ps)
Cobalt	0	0.33
Chromium, Total (as Cr)	0	0.026
Ethyl Benzene	0	90.36*
Formaldehyde	0.0002	8.37
Nickel	0	0.36
Cumene	0	1.38
Glycol Ethers	0	3.22
Hexane; N-Hexane	0.006	1.64
Manganese	0	6.86
Toluene	0.008	82.45*
Xylenes	0.008	225.72*
Combined HAPs:	0.022	421*

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

Emission Unit #3 Vacublast Units				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	2.34 lbs/hr	401 KAR 59:010, Section 3(2)	Engineering estimate	Cyclone and filter, 99% CE
	20% opacity	401 KAR 59:010, Section 3(1)	N/ A	Weekly visual observation

## SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

## Initial Construction Date: See below

## **Process Description:**

EP 03 Vacublast Units

VMV117: Vacu-Blast Model 300063. Unit uses 80 Mesh glass beads (or equivalent) to clean metal parts. Control Device: 400 SCFM Single Cyclone and a 67.5 sq. ft. filter which is cleaned by manual shaking with an estimated efficiency of 99% to 1 micron when operated according to specifications and pressure drops across the unit are between 6" and 10" of water. Commenced:1990

VMV118: Vacu-Blast Model Mark III P Pressure Dry Honer Unit uses 80 Mesh glass beads (or equivalent) to clean metal parts.

Control Device: with a 1200 CFM Single Cyclone manufactured by Abrasive Blast Systems, Inc. and a 67.5 sq. ft. filter which is cleaned by manual shaking with an estimated efficiency of 99 % to 1 micron when operated according to specifications and pressure drops across the unit are between 8" and 10" of water

Commenced: 1989

## **Applicable Regulation**:

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 particulates, commenced on or after July 2, 1975.

## **State-Origin Requirement:**

**401 KAR 63:020**, Potentially hazardous matter or toxic substances. Applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

#### **Comments:**

N/A

Emission Unit #4 Rotoblaster				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	2.34 lbs/hr	401 KAR 59:010, Section 3(2)	Engineering estimate	Filter 99% CE
	20% opacity	401 KAR 59:010, Section 3(1)	N/A	Weekly visual observation

#### **Initial Construction Date:** 1/2000

#### **Process Description:**

EP 04 Rotoblaster

VMV06: Pangborn Blast Cleaning Systems, Model #: GLK-7

Control Device: 1,016 sq. ft. filter which is cleaned by shaking

Control efficiency: 99% to 5 microns when operated at 1440 SCFM and pressure drops across the filter are between 2" and 3" of water

Shot blasting media: S-200 steel shot blasting beads (or equivalent)

## **Applicable Regulation:**

**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 particulates, commenced on or after July 2, 1975.

## **State-Origin Requirement:**

**401 KAR 63:020**, Potentially hazardous matter or toxic substances. Applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

#### **Comments:**

N/A

Emission Unit #5 Abrasive blasting				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
PM	2.34 lbs/hr	401 KAR 59:010, Section 3(2)	SDS	Baghouse Control Efficiency 99%
	20% opacity	401 KAR 59:010, Section 3(1)	N/A	Weekly visual observation
Initial Construction Date: 1/1999     Observation       Process Description:     EP 05				

VMV09: Abrasive blasting of locomotive parts and engines.

## **Emission Unit #5 Abrasive blasting**

Is a 100 ft. by 60 ft. by 30 ft. building equipped with 2 blasters: an Impco Autofill Blaster (Serial # 97-111) and another blaster for a nearly identical but separate process (the blasters are not designed to be operated together)

Control Device: Four (4) 26,000 acfm baghouses: each is a Model 528 CT 2 manufactured by Carborundum Dust Control Systems and uses pulse air cleaning. Each baghouse has 550 bags (each bag is 5" in diameter and 132" long).

1. Sand: Hourly Design Rate is 1.26 tons per hour.

2. Black Beauty: Hourly Design Rate is 1.26 tons per hour.

#### **Applicable Regulation:**

**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 particulates, commenced on or after July 2, 1975.

#### **State-Origin Requirement:**

**401 KAR 63:020**, Potentially hazardous matter or toxic substances. Applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

#### **Comments:**

N/A

Emission Unit #6 Arc Welding.				
Pollutant	Emission Limit	Regulatory Basis for Emission Limit or	Emission Factor	Compliance Method
	01 Stanuaru	Standard	Useu allu Dasis	
PM	2.34 lbs/hr	401 KAR 59:010,	SDS	Building enclosure 70%
		Section 3(2)		capture efficiency
	20% opacity	401 KAR 59:010,	N/A	Weekly visual
		Section 3(1)		observation
Nickel	Source wide	401 KAR 63:020	Material Balance &	Recordkeeping, 12
	0.0292 tpy		SDS	month rolling total

#### Initial Construction Date: see below

#### **Process Description:**

**EP 06** (VMV11)Arc Welding

is comprised of General Welding Equipment wire fed welding units, General Welding Equipment stick-type welding units, and General Welding Equipment combination welding units. Each unit has a maximum wire usage rate of 1.1 lbs/hr (as determined through field-testing) These welding units have no physical control equipment for pollution reduction but welding inside of any semi-enclosed building has been assumed to provide a 70% capture efficiency

32 GMAW-Metal Intert Gas (MIG): Hourly Design Rate is 35.2 pounds per hour.

**45 SMAW-Stick (Combo Units):** Hourly Design Rate is 49.5 pounds per hour. Commenced: 1976 through 2013

## Emission Unit #6 Arc Welding.

#### **Applicable Regulation:**

**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 particulates, commenced on or after July 2, 1975.

## **State-Origin Requirement:**

**401 KAR 63:020**, Potentially hazardous matter or toxic substances. Applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

#### **Comments:**

**401 KAR 63:002, Section 2(4)(vvvvv)** 40 C.F.R. 63.11514 through 63.11523, Tables 1 to 2 (Subpart XXXXX), National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories, does not apply because the source is not in one of the nine metal fabrication and finishing source categories.

Emission Unit #08 Indirect Heat Exchanger					
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method	
PM	0.48 lb/MMBtu	401 KAR 59:015, Section 4(1)(c)	AP-42 Chapter 1.4.	Assumed based upon natural gas combustion	
	20% opacity	401 KAR 59:015, Section 4(2)	N/A	Assumed based upon natural gas combustion	
SO <sub>2</sub>	2.31 lbs/MMBtu	401 KAR 59:015, Section 5(1)	AP-42 Chapter 1.4.	Assumed based upon natural gas combustion	
NOx	Source wide 90 tpy	401 KAR 52:030	AP-42 Chapter 1.4.	Recordkeeping, 12 month rolling total	

## Initial Construction Date: 1/1987

## **Process Description:**

Consists of the following 3 boilers:

- 1. Sellers 50HP Model 77 Commodore Boiler with a rated capacity of 2.093 MMBtu/hr.
- 2. 300HP 105E 150# Sellers Engineering Boiler with a rated capacity of 12.555 MMBtu/hr.
- 3. Sellers 100HP 77C 150# Boiler with a rated capacity of 4.187 MMBtu/hr.

Fuel: Natural Gas

## **Applicable Regulation:**

**401 KAR 59:015**, New Indirect Heat Exchangers, applicable to indirect heat exchangers having a heat input capacity greater than one (1) million Btu per hour (MMBtu/hr) commenced on or after April 9, 1972 (401 KAR 59:015, Section 2(1)).

State-Origin Requirement:401 KAR 63:020, Potentially hazardous matter or toxic substances. Applicable to each affected facility

#### **Emission Unit #08 Indirect Heat Exchanger**

which emits or may emit potentially hazardous matter or toxic substances.

#### **Comments:**

401 KAR 63:002 Section 2(4) (jjjjj) 40 C.F.R. 63.11193 to 63.11237, Tables 1 through 8 (Subpart JJJJJJ), National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources does not apply to the gas-fired boilers.

401 KAR 60:005 Section 2(2) (d) 40 C.F.R. 60.40c through 60.48c (Subpart Dc), Standards of Performance for Small Industrial Commercial-Institutional Steam Generating Units does not apply to the indirect heat exchangers because they were constructed before June 9, 1989

Emission Unit #09a Train Locomotive Spray Booth				
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
PM	2.58 lbs/hr	401 KAR 59:010, Section 3(2)	SDS	Water walls, 90% CE
	20% opacity	401 KAR 59:010, Section 3(1)	N/ A	Weekly visual observation
НАР	Source wide 9/22.5 tpy single/combined	401 KAR 52:030	Material Balance & SDS	Recordkeeping, 12 month rolling total
Cobalt	Source wide 0.00165 tpy	401 KAR 63:020	Material Balance & SDS	Water walls, 90% CE, Recordkeeping, 12 month rolling total
Ethyl Benzene	Source wide 5.2 tpy	401 KAR 63:020	Material Balance & SDS	Recordkeeping, 12 month rolling total

## Initial Construction Date: 1/1973

#### **Process Description:**

**EP 09a:** (VMV08) Train Locomotive Spray Booth.

 Paint Usage: Rated capacity: 2 HVLP guns (or equivalent) rated at 14 gal/hr each Manufacturer: JBI ; Transfer efficiency has been assumed to be 65%

2. Thinner Usage: Hourly Design Rate 1.56 gal/hr

#### **Applicable Regulation:**

**401 KAR 61:020**, Existing Process Operations, applies to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates commenced before July 2, 1975.

### Emission Unit #09a Train Locomotive Spray Booth

#### **State-Origin Requirement:**

**401 KAR 63:020**, Potentially hazardous matter or toxic substances. Applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

#### **Precluded Regulations:**

401 KAR 52:020, Title V permits.

#### **Comments:**

401 KAR 59:225, New Miscellaneous Metal Parts and Products Surface Coating Operations, applies to each facility commenced on or after February 4, 1981 which is part of a major source and is located in a county or portion of a county designated attainment or marginal nonattainment for ozone in 401 KAR 51:010. This rule does not apply any of the paint booths at the source, since this is not a major source.

Emission Unit #09b Train Locomotive Spray Booth				
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	SDS/ Mass Balance	Recordkeeping, 12 month rolling total
НАР	Source wide 9/22.5 tpy single/combined	401 KAR 52:030	SDS/ Mass Balance	Recordkeeping, 12 month rolling total
PM	2.34 lbs/hr	401 KAR 59:010, Section 3(2)	SDS	A.J. Draille filters or equivalent, 99% C.E., Manufacturer's guarantee
	20% opacity	401 KAR 59:010, Section 3(1)	N/A	Weekly Visual Observation
Cobalt	Source wide 0.00165 tpy	401 KAR 63:020	Material Balance & SDS	Filters, 99% C.E., Recordkeeping, 12 month rolling total
Ethyl Benzene	Source wide 5.2 tpy	401 KAR 63:020	Material Balance & SDS	Recordkeeping, 12 month rolling total

#### **Initial Construction Date:** See below

#### **Process Description:**

EP 09b: (VMV126) Train Locomotive Spray Booth

- 1. Paint Usage: Rated capacity: 2 HVLP guns (or equivalent) rated at 14 gal/hr each Manufacturer: JBI; Transfer efficiency has been assumed to be 65%
- 2. Thinner Usage: Hourly Design Rate 1.56 gal/hr

## **Emission Unit #09b Train Locomotive Spray Booth**

#### **Applicable Regulation:**

**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 particulates, commenced on or after July 2, 1975.

## **State-Origin Requirement:**

**401 KAR 63:020**, Potentially hazardous matter or toxic substances. Applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

## Precluded Regulations:

401 KAR 52:020, Title V Permits.

Comments: NA

Emission Unit #13 Degreasers				
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	SDS/ Mass Balance	Recordkeeping, 12 month rolling total

**Initial Construction and/or Modification Date:** 1/1980

## **Process Description:**

## EP 13 degreasers

• (VMV18,VMV20, VMV34, VMV37-VMV41, VMV43, VMV51-VMV56): are custom built dip tank style cold cleaning degreasers with tank covers.

• VMV121: is a Magnus spray sink style degreaser with a tank cover. Has a sprayer rated for use at 50 psi.

Commenced Construction: 1991

## **Applicable Regulation:** N/A

#### **Comments:**

401 KAR 59:185, New Solvent Metal Cleaning Equipment, does not apply to any metal cleaning activity at this plant since the source is not located in a major source nor a county or portion of a county which is designated as ozone nonattainment.

Emission Unit #17 Dip Coating of Metal Parts				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
VOC	Source wide 90 tpy of VOC emissions	401 KAR 52:030	SDS/ Mass Balance	Recordkeeping, 12 month rolling total
НАР	9/22.5 tpy single/combined HAPs	401 KAR 63:020	SDS/ Mass Balance	Recordkeeping, 12 month rolling total

## Initial Construction Date: See below

## **Process Description:**

Five (5) ovens used to cure the coatings applied in the dip tanks. The ovens are used as needed and items from any tank may be cured in any oven, provided the size is appropriate. Three (3) of the ovens are heated by combustion of natural gas (1 with a 700,000 Btu/hr maximum heat input burner and 2 with a 425,000 Btu/hr maximum heat input burner), one (1) is heated by electricity, and one (1) is heated by steam.

EP 17a: VMV44, Devine Drawing

- VMV44 Inhibitor Hourly Design Rate: 0.05 gallons per hour Commenced date: 1982
- VMV44 Resin Hourly Design Rate: 1.15 gallons per hour Commenced date: 1982
- VMV44 Thinner Hourly Design Rate: 9.34 gallons per hour Commenced date: 1982

EP 17b: VMV45, Dip tanks for traction motors

- VMV45- Inhibitor Hourly Design Rate: 0.1003 gallons per hour Commenced date: 1972
- VMV45 Resin Hourly Design Rate: 3.45 gallons per hour Commenced date: 1982
- 3. VMV45 Hourly Design Rate: 0.863 gallons per hour Commenced date: 1982
- EP 17c: N.G Usage (3 Curing Ovens) Heat input: 1 oven with a 700,000 Btu/hr and the other 2 with a 425,000 Btu/hr

## **Applicable Regulation:**

**401 KAR 63:020**, Potentially Hazardous Matter or Toxic Substances, applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances. (State-Origin Requirement)

Comments: N/A

Emission Unit #18 Testing of Locomotive Engines						
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	Engineering estimate	Recordkeeping, 12 month rolling total		
NOx	Source wide 90 tpy	401 KAR 52:030	Engineering estimate	Recordkeeping, 12 month rolling total		
НАР	Source wide 9/22.5 tpy single/combined	401 KAR 52:030	Engineering estimate	Recordkeeping, 12 month rolling total		
Formalde hyde	Source wide 2.13 tpy	401 KAR 63:020	Engineering estimate	Recordkeeping, 12 month rolling total		

## **Initial Construction Date:** 1/1975

Process Description: Testing of Locomotive Engines

- **EP18:** 1. High Sulfur Diesel
  - Hourly Design Rate: 14.58 1000 Gallons/hr
  - 2. Low Sulfur Diesel Usage Hourly Design Rate: 14.58 1000 Gallons/hr
  - 3. Ultra Low Sulfur Diesel Usage Hourly Design Rate: 15.58 1000 Gallons/hr

## **Applicable Regulation:**

**401 KAR 63:020**, Potentially Hazardous Matter or Toxic Substances, applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances. [State-Origin Requirement]

## **Precluded Regulations:**

401 KAR 52:020, Title V permits.

#### **Comments:**

401 KAR 60:005 Section 2(2)(ddd) 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, do not apply to the two (2) test cells, EP18 (VMV122), since the requirements of this rule are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand, pursuant to 40 CFR 60.4200(b).

Emission Unit #20, (VMV105) Painting of engines and other parts								
Emission Unit #21 (PAU 1-4) Painting of locomotive								
	Emission Unit #25, (SG-1) Painting of locomotive parts							
Pollutant	Emission Limit	Regulatory Basis	Emission Factor	<b>Compliance Method</b>				
	or Standard	for Emission Limit or Standard	Used and Basis					
VOC	Source wide 90 tpy	401 KAR 52:030	SDS	Recordkeeping, 12 month rolling total				
HAP	Source wide 9/22.5 tpy single/combined	401 KAR 52:030	SDS	Recordkeeping, 12 month rolling total				
PM	2.34 lbs/hr	401 KAR 59:010, Section 3(2)	SDS with 65% Transfer Efficiency	Filters 95% - 99% C.E., Manufacturer's guarantee				
	20% opacity	401 KAR 59:010, Section 3(1)	N/A	Weekly Visual Observation				
Ethyl Benzene	Source wide 5.2 tpy	401 KAR 63:020	Material Balance & SDS	Recordkeeping, 12 month rolling total				
Cobalt	Source wide 0.00165 tpy	401 KAR 63:020	Material Balance & SDS	Filters 99% C.E., Recordkeeping, 12 month rolling total				

## Initial Construction Date: 1/1999

## **Process Description:**

**EP 20** 1. Paint Usage

30 ft deep open face spray paint booth with a 21,700 scfm ventilation system Manufacturer: Binks Manufacturing. Spray operation system: DeVilbis HVLP gun Hourly Design Rate: 14 gals/ hr

2. Thinner.

Hourly Design Rate: 0.16 gals/ hr Controls: AF 29-359 double pleated cardboard filters with 97% Control efficiency Construction date: 1/1999

## **EP 21`** 1. Paint Usage

Painting of locomotive insides and other painting outside of permanent booths. Spray operation system: DeVilbis HVLP gun Hourly Design Rate: 14 gals/ hr

## 2. Thinner.

Hourly Design Rate: 0.58 gals/ hr Controls: 3-stage filter with 95% Control efficiency Construction date: 5/1999

**EP 25** 1. Paint Usage

A paint booth with a 32,500 scfm Airgaurd ventilation system at both sides of the north end of the booth (a total of 2 systems).

Emission Unit #20, (VMV105) Painting of engines and other parts
Emission Unit #21 (PAU 1-4) Painting of locomotive
Emission Unit #25, (SG-1) Painting of locomotive parts

Spray operation system: DeVilbis HVLP gun Hourly Design Rate: 14 gals/ hr

## 2. Thinner.

Hourly Design Rate: 0.11 gals/ hr Controls: filters with 99% Control efficiency Construction date: 1/1995

## **Applicable Regulation:**

**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 particulates, commenced on or after July 2, 1975.

## **State-Origin Requirement:**

**401 KAR 63:020**, Potentially hazardous matter or toxic substances. Applicable to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

**Comments:** 

NA

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# 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 REQUIREMENTS

## Table A - Group Requirements:

Emission and Operating Limit	Regulation	Emission Unit
90 tpy of VOC emissions	401 KAR 52:030	Source- wide
90 tpy of NOx emissions	401 KAR 52:030	Source- wide
9/22.5 tpy single/combined HAPs	To preclude major source status for HAP	Source- wide
0.00165 tpy of Cobalt	401 KAR 63:020	Source- wide
5.2 tpy of Ethyl Benzene	401 KAR 63:020	Source- wide
2.13 tpy of Formaldehyde	401 KAR 63:020	Source- wide
0.0292 tpy of Nickel	401 KAR 63:020	Source- wide

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

Applicable Regulations				
	Unit			
401 KAR 59:010, New Process Operations	EU 03, 04,			
	05, 06, 09b,			
	20, 21& 25			
401 KAR 61:020, Existing Process Operations	EU 09a			
401 KAR 63:020, Potentially hazardous matter or toxic substances.	EU 05, 06,			
	08, 09a,			
	09b, 17,18,			
	20, & 25			
401 KAR 63:021, Existing sources emitting toxic air pollutants.	EU 09a			
401 KAR 59:015, New Indirect Heat Exchangers	EU 08			

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

Precluded Regulations	Emissio n Unit
401 KAR 52:020, Title V permits.	Source wide

## Table D - Summary of Non Applicable Regulations:

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

## Air Toxic Analysis

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

The Division for Air Quality (Division) has performed SCREEN View on January 10, 2023 of potentially hazardous matter or toxic substances (Cobalt, Cumene, Ethylbenzene, Formaldehyde, Manganese, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Nickel, 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. Additional refined model AERMOD was performed on May 9, 2025 on Cobalt, Ethylbenzene, Formaldehyde and Nickel Soluble Salts pollutants. 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

Permit	Permit Type	Activity#	Complete Date	Issuance Date	Summary of Action	PSD/Syn Minor
F-07-003	Renewal	APE20040002	12/13/2007	5/1/2008	Renewal	NA
F-12-040	Renewal	APE20120002	8/16/2012	1/29/2013	Renewal	NA
F-12-040 R1	Minor Revision	APE20130001	8/14/2013	11/3/2013	Minor Revision	NA
F-17-045	Renewal	APE20170001	7/25/2017	1/11/2018	Renewal	Renewal

# SECTION 5 – PERMITTING HISTORY

**SECTION 6 – PERMIT APPLICATION HISTORY** None

## **APPENDIX A – ABBREVIATIONS AND ACRONYMS**

- AAQS – Ambient Air Quality Standards BACT - Best Available Control Technology – British thermal unit Btu CAM - Compliance Assurance Monitoring – Carbon Monoxide CO 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 – Millimeter of mercury column height mmHg 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  $PM_{10}$ – Particulate Matter equal to or smaller than 10 micrometers - Particulate Matter equal to or smaller than 2.5 micrometers PM<sub>2.5</sub> PSD – Prevention of Significant Deterioration PTE – Potential to Emit
- SO<sub>2</sub> Sulfur Dioxide
- TF Total Fluoride (Particulate & Gaseous)
- VOC Volatile Organic Compounds