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

Conditional Major, Operating PERMIT ID: F-23-038 R & S Godwin Truck Body, LLC 5168 US Highway 23 South, Ivel, KY 41642 August 24, 2023 Nathan Cox, Reviewer

> Source ID: 21-071-00157 Agency Interest #: 38060 Activity ID: APE20230001

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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: Floyd Nonattainment Area ⊠ N/A [If yes, list Classification:	□ PM ₁₀ □	$PM_{2.5} \square CO \square NO_X \square SO_2 \square Ozone \square Lead$
PTE* greater than 100 tpy for a If yes, for what pollutant(s) $\square PM_{10} \square PM_{2.5} \square CO \square$?	-
PTE* greater than 250 tpy for a If yes, for what pollutant(s) $\square PM_{10} \square PM_{2.5} \square CO \square$?	-
PTE* greater than 10 tpy for an If yes, list which pollutant(• •	azardous air pollutant (HAP) 🗌 Yes 🛛 No

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

*PTE does not include self-imposed emission limitations.

Description of Facility:

R&S Godwin Truck Body Company, LLC manufactures steel and aluminum truck bodies used in coal, blacktop, and construction industries. The main sources of potential emissions are three (3) spray booths. The facility also has welding machines, plasma cutters, and an abrasive blasting machine. Potential emissions of Volatile Organic Compounds (VOC) is above major source thresholds; however the source has accepted Federally-enforceable limits to be classified as a non-major source.

SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

Permit Number: F-23-038	Activity:	APE2023000	1
Application Received: 6/14/2023	Application	Complete: 8/17/	2023
Permit Action: Initial Renewal Sig	nificant Rev.	☐ Minor Rev.	☐ Administrative
Construction/Modification Requested?	⊠No		

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

Description of Action:

The facility has requested a renewal of its conditional major operating permit. The facility changed the formulation of their undercoating from a solvent-based coating to a powder coating. This lowered their potential to emit (PTE) of VOC and HAP emissions. Their combined HAP PTE is below the 25 tpy threshold requiring a limit, but the existing 12.5 tpy limit was left in the permit to provide operational flexibility for the source in case of future changes.

F-23-038 Emission Summary					
Pollutant	2022Actual	Previous PTE	Change (tpy)	Revised PTE	
	(tpy)	F-18-021 (tpy)		F-23-038 (tpy)	
CO	0	0	0	0	
NO _X	0	0	0	0	
РТ	0.68	7.07	11.56	18.63	
PM_{10}	0.68	7.07	11.56	18.63	
PM _{2.5}	0.01	5.51	12.69	18.20	
SO_2	0	0	0	0	
VOC	1.28	215.39	-74.95	140.44*	
Lead	0	0	0	0	
	Gre	eenhouse Gases (GHO	Gs)		
Carbon Dioxide	0	0	0	0	
Methane	0	0	0	0	
Nitrous Oxide	0	0	0	0	
CO ₂ Equivalent (CO ₂ e)	0	0	0	0	
	Hazar	dous Air Pollutants (I	HAPs)		
Cumene	0.002	0.55	0	0.055	
Ethyl Benzene	0	2.43	-2.43	0	
Methyl Ethyl Ketone	0.10	3.69	0	3.69	
Toluene	0.0008	0.09	0	0.09	
Xylenes (Total)	0.01	3.59	-2.44	1.15	
Combined HAPs:	0.61	9.86	-4.86	5.00	

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

	EP 01 (Spray Booth 1&2), EP 02 (SprayBooth #3)					
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method		
VOC	Source wide 50 tpy	To preclude 401 KAR 52:020	Material Balance & MSDS	Monitoring, recordkeeping and reporting		
PM	2.34 lbs/hr	401 KAR 59:010, Section 3(2)	Material Balance & MSDS	Filters, 90% C.E., Manufacturer's guarantee		
PM	20 percent opacity	401 KAR 59:010, Section 3(1)	N/A	Weekly monitoring and recordkeeping requirements		
Single HAP	Source wide 5 tpy	To preclude 401 KAR 52:020	Material Balance & MSDS	Recordkeeping and reporting requirements		
Combined HAPs	Source wide 12.5 tpy	To preclude 401 KAR 52:020	Material Balance & MSDS	Recordkeeping and reporting requirements		

SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

Initial Construction Date : 1/1998

Process Description:

Spray booths using air less spray guns with transfer efficiency estimated to be 45%. Controls: Filter with control efficiency of 90%.

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.

401 KAR 63:020, *Potentially hazardous matter or toxic substances* is applicable to because the facility may emit potentially hazardous matter or toxic substances which may be harmful to the health and welfare of humans, animals, and plants.

Comments:

Emission factors for the painting operation are derived from taking the worst case VOC and individual HAP content of multiple coatings. The following are the worst case scenario emission factors for each pollutant:

EP 01 (Spray Booth 1&2) MP 1: Undercoating				
PM/PM10/PM2.5	5.555 lb/gal			
VOC	0 lb/gal			
Carbon Black	0.27775 lb/gal			
EP 01 (Spray Booth 1&2) MP 2: Top Coat				
PM/PM10/PM2.5	2.868 lb/gal			
VOC	4.953 lb/gal			
Methyl Ethyl Ketone	0.0719 lb/gal			
Toluene	0.014 lb/gal			

EP 01 (Spray Booth 1&2	EP 01 (Spray Booth 1&2), EP 02 (SprayBooth #3)					
Xylenes	0.1709 lb/gal					
EP 01 (Spray Booth 18	&2) MP 3: Reducer					
VOC	7.55 lb/gal					
Cumene	0.01294 lb/gal					
Ethyl Acetate	3.775 lb/gal					
Methyl Ethyl Ketone	0.755 lb/gal					
EP 02 (Spray Booth #3	B) MP 1: Undercoating					
PM/PM10/PM2.5	5.555 lb/gal					
VOC	0 lb/gal					
Carbon Black	0.27775 lb/gal					

401 KAR 63:002, Section 2(4)(rrr), 40 C.F.R. 63.3880 to 63.3981, Subpart MMMM - National Emission Standard for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products is not applicable because the source is not part of a major source of emissions of HAP.

401 KAR 63:002, Section 2(4)(iiiii), 40 C.F.R. 63.11169 to 63.11180, Subpart HHHHHH—National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources. The spray coatings in use do not contain compounds of chromium (Cr), lead (Pb), manganese (Mn) and nickel (Ni), collectively referred to as the target HAP in such quantities as to be subject to this regulation.

Insignificant Activities: Welding, Abrasive Blasting and Plasma Cutters

Initial Construction Date: 1/1998 (Welders), 1/2007 (Abrasive Blaster), 1/2007 (Plasma Cutters)

Process Description:

1. Seventy three (73) welders using 0.035 Steel Wire at 14.4 lbs/hr and 3-64 Aluminum Wire at 4.64 lbs/hr

- 2. Wheelabrator Abrasive Blasting using Steel Shot at 57.7 lbs/hr
- 3. Two (2) Plasma Cutters #1 and #2

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.

401 KAR 63:020, *Potentially hazardous matter or toxic substances* is applicable to because the facility may emit potentially hazardous matter or toxic substances which may be harmful to the health and welfare of humans, animals, and plants.

Comments:

401 KAR 63:002, Section 2(4)(vvvv), 40 C.F.R. 63.11514 to 63.11523 Subpart XXXXX—National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories is not applicable because the SIC code for this company is not included in

Insignificant Activities: Welding, Abrasive Blasting and Plasma Cutters

the list of source categories subject to this regulation.

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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
50 tpy of VOCemissions	401 KAR 52:030, Federally-enforceable permits for nonmajor sources	Source- wide
5.0 tpy of individual HAP emissions	To preclude major source status for HAP	Source- wide
12.5 tpy of combined HAP emissions	To preclude major source status for HAP	Source- wide

Table B - Summary of Applicable Regulations:

Applicable Regulations	Emission Unit
401 KAR 63:020, Potentially hazardous matter or toxic substances.	EU 01, EU 02
401 KAR 59:010, New process operations	EU 01, EU 02

Table C - Summary of Precluded Regulations:

Precluded Regulations	Emission Unit
401 KAR 52:020, Title V Permits	

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 April 1, 2024 of potentially hazardous matter or toxic substances (Carbon Black, Chromium, Cobalt, Cumene, Ethyl Acetate, Ethyl Benzene, Manganese, Methyl Ethyl 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. 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

Permit	Permit Type	Activity#	Complete Date	Issuance Date	Summary of Action	PSD/Syn Minor
F-06-041	Initial	APE20040001	12/4/2004	10/19/2006	Initial Construction / Operation Permit	N/A
F-12-030	Renewal	APE20120001	5/17/2012	1/11/2013	Renewal	N/A
F-18-021	Renewal	APE20180001	6/27/2018	11/18/2018	Renewal	N/A

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_x – 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_{2.5} PSD – Prevention of Significant Deterioration PTE – Potential to Emit
- SO₂ Sulfur Dioxide
- TF Total Fluoride (Particulate & Gaseous)
- VOC Volatile Organic Compounds