

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

Conditional Major, Operating  
Permit: F-24-067

TG Automotive Sealing Kentucky, LLC  
501 Frank Yost Lane  
Hopkinsville, KY 42240

November 15, 2024

Qinyi Wang, Reviewer

SOURCE ID: 21-047-00108  
AGENCY INTEREST: 4417  
ACTIVITY: APE20240002

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## SECTION 1 – SOURCE DESCRIPTION

SIC Code and description: 3714, Motor Vehicle Parts and Accessories.

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: Christian

Nonattainment Area  N/A  PM<sub>10</sub>  PM<sub>2.5</sub>  CO  NO<sub>x</sub>  SO<sub>2</sub>  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<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): Toluene

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

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

### Description of Facility:

TG Automotive Sealing Kentucky, LLC manufactures parts for motor vehicles. They produce rubber and plastic automotive sealing products and assembly of automotive air bags. They use HVLP guns to apply silicon coating and curing ovens to vulcanize the rubber. The facility is located in Hopkinsville, Christian County. The site is a large manufacturing building next to other large production/commercial manufacturing facilities surrounded by agricultural, wooded areas, and single family residential zones.

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

Permit Number: F-24-067

Activity: APE20240001

Application Received: July 29, 2024

Application Complete Date(s): December 2, 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:**

On July 29, 2024, an application was received from TG Automotive Sealing Kentucky, LLC (TGASK) for a renewal of their currently conditional major permit (F-19-042) expiring on January 30, 2025 for their manufacturing facility in Christian County, KY.

- Request to add two small natural gas fired emergency generators (EP18)
- Additional of two insignificant activity: miscellaneous finishing operations (IA07) and floc adhesive operation (IA08)
- The facility is requesting to remove Purge & Manual Clean-up Operations from the list of insignificant activities

F-24-067 Emission Summary				
Pollutant	2023 Actual (tpy)	Previous PTE F-19-042 (tpy)	Change (tpy)	Revised PTE F-24-067 (tpy)
CO	0.32	1.10	+0.44	1.54
NO <sub>x</sub>	0.01	1.30	+0.61	1.91
PT	0.52	5.20	-4.18	1.02
PM <sub>10</sub>	0.02	0.04	+0.1	0.14
PM <sub>2.5</sub>	0.01	0.03	+0.11	0.14
SO <sub>2</sub>	0.002	0.007	+0.003	0.01
VOC	10.28	115.3	-28.76	86.54
Lead	0	0	+9.12E-06	9.12E-06
Greenhouse Gases (GHGs)				
Carbon Dioxide	451.20	1578.9	+609.72	2188.62
Methane	0.01	0.03	+0.05	0.08
Nitrous Oxide	0.01	0.02	+0.016	0.004
CO <sub>2</sub> Equivalent (CO <sub>2</sub> e)	454.43	1588.2	+603.65	2191.85
Hazardous Air Pollutants (HAPs)				
Combined HAPs:	3.76	39.5	-2.18	37.32*
Carbon Disulfide	N/A	N/A	N/A	5.05
Glycol Ethers	N/A	N/A	N/A	2.95
Toluene	3.76	39.5	-14.44	28.06*

*Note:*

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

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

Emission Point: 04(EP 4)    LINE # A4, Rubber Extruder Emission Point: 08(EP8)    LINE # A8, Rubber Extruder Emission Point: 16-2(EP16-2)    Ransburg Coater, Off Line Coating # 2				
Pollutant	Emission Limit or Standard	Regulatory Basis for Emission Limit or Standard	Emission Factor Used and Basis	Compliance Method
Individual HAP	Source wide 9 tpy	To preclude 401 KAR 52:020	Material Balance & MSDS & AP-42	Monthly records and a new rolling 12/month total
Combined HAP	Source wide 22.5 tpy	To preclude 401 KAR 52:020	Material Balance & MSDS & AP-42	Monthly records and a new rolling 12/month total
PM	2.34 lbs/hr	401 KAR 59:010, Section 3(2)	Material Balance & MSDS with 60% Transfer Efficiency & AP-42	Maintaining manufacturer's specification
	< 20% Opacity	401 KAR 59:010, Section 3(1)a	N/A	Recordkeeping of weekly visual observations

**Initial Construction Dates:** EP04: 6/2002, EP08: 1/2005, EP16-2: 7/2005.

**Modification Dates:** EP04: 1/2020, EP16-2: 2010

**Process Description:**

EPDM rubber pellets are formed to shape by extruders. The parts go to an oven for vulcanization. Next the parts are sprayed with a solvent-based silicon coating. The silicon coating is dried in an oven. Finished parts are sent to assembly or shipped to other facilities. Silicone (water-based) coating materials would be utilized in EP08 and EP16-2 operations.

**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 Regulation:**

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

**Comments:**

Emission Point 04 (Line A4): MP1 - Curing/Vulcanization Oven, Natural Gas, 0.198 MMBtu/hr. MP2 - EPDM Rubber Extruder with Hot Air Curing, 876 lb/hr. MP3&4 - Coating Booth 2, 3.925 lb/hr, HVLP guns with 60% transfer Efficiency; Daily Usage of Clean up solvent is 1 gal/day. MP5 - (3) Curing/Vulcanization Oven, Natural Gas, 0.75 MMBtu/hr, each. Isopar used for clean up solvent.

Emission Point 08 (Line A8): MP1 - Coating Booth 1, 8.17 lb/hr., HVLP guns with 60% transfer Efficiency. MP2 - Curing/Vulcanization Oven, Natural Gas, 0.198 MMBtu/hr. MP3 - (2) EPDM Rubber Extruders with Hot Air Curing, 876 lb/hr. MP4 - Curing/Coating Ovens, Natural Gas, 0.794 MMBtu/hr.

Emission Point 16-2 (Ransburg Coater): MP1 – Off Line Coating, 11.91 lb/hr. MP2 – Ransburg Oven #2, 0.794 MMBtu/hr.

**Emission Point: 18(EP18) Natural Gas Emergency Generators**

**Initial Construction Date:** 9/2013

**Process Description:**

(2) Natural Gas Emergency Generators are manufactured by Generac.

Generac Model: 0058871

Generac Model Year: 2009

They are identified as spark ignition and the maximum of each engine power is 27 hp (20 kw).

**Applicable Regulation:**

**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*. Because the operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 kw.

**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 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 CFR 63, Subpart ZZZZ.

**Comments:**

Rating of each engine is at 0.267 MMBtu/hr.

**Insignificant Activity: IA 07 Finishing Operations**

**Initial Construction Date:** 7/2024

**Process Description:**

The assembly adhesive used Loctite 406; the ratio of max usage is 0.17 lb/hr. The adhesion promoter cells used 4298UV and K520UV; the ratio of max usage are 0.26 lb/hr and 0.16 lb/hr. The lubricating oil used Vanishing Oil; the ratio of max usage is 0.07 lb/hr.

**State-Origin Regulation:**

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

**Comments:**

There are multiple stations throughout the facility that manually apply the finishing operations to the finishing goods.

**SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS (CONTINUED)**

**Testing Requirements/Results**

<b>Emission Unit(s)</b>	<b>Control Device</b>	<b>Parameter</b>	<b>Regulatory Basis</b>	<b>Frequency</b>	<b>Test Method</b>	<b>Permit Limit</b>	<b>Test Result</b>	<b>Thruput and Operating Parameter(s) Established During Test</b>	<b>Activity Graybar</b>	<b>Date of last Compliance Testing</b>
N/A										

**Footnotes:**

**SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS**

**Table A - Group Requirements:**

<b>Emission and Operating Limit</b>	<b>Regulation</b>	<b>Emission Unit</b>
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

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

<b>Applicable Regulations</b>	<b>Emission Unit</b>
401 KAR 59:010, <i>New process operations</i>	EP 04, 08, & 16-2
401 KAR 63:020, <i>Potentially hazardous matter or toxic substances.</i>	EP 04, 08, & 16-2
401 KAR 60:005 Section 2(2)(eeee), 40 C.F.R. 60.4230 through 60.4248, Tables 1 through 4 (Subpart JJJJ), <i>Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.</i>	EP18
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), <i>National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.</i>	EP18

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

<b>Precluded Regulations</b>	<b>Emission Unit</b>
N/A	

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

**Table D - Summary of Non Applicable Regulations:**

<b>Non Applicable Regulations</b>	<b>Emission Unit</b>
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 August 19, 2024 of potentially hazardous matter or toxic substances (Carnon Disulfide, Cumene, Ethyl Benzene, Ethylene Glyco, Formaldehyde, n-Hexane, Methyl Isobutyl Ketone, Toluene, Xylenes and Lead) 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-05-019	Initial	APE20050003	5/5/2005	10/7/2005	Construction/ Operating Permit	F-05-019
F-10-023	Renewal	APE20100001	5/13/2010	8/10/2010	Operating/ Construction Permit	F-10-023
S-15-056	Initial	APE20150001	4/10/2015	11/10/2015	Initial Permit	S-15-056
F-19-042	Initial	APE20190001	11/21/2019	1/30/2020	Initial Permit	F-19-042

**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 <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