

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

Title V, Operating  
Permit: V-25-007  
Accuride Corporation  
Henderson, KY 42420  
February 17, 2025

Sandra M. Cooke, Reviewer

SOURCE ID: 21-101-00030  
AGENCY INTEREST: 1786  
ACTIVITY: APE20240001

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## SECTION 1 – SOURCE DESCRIPTION

SIC Code and description: 3499 – Fabricated Metal Products, NEC (Other Metal Products)

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: Henderson

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):

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

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

### Description of Facility:

Accuride Corporation (Accuride), located in Henderson County, Kentucky, is a manufacturer of wheels for heavy, medium, and light-duty trucks. The facility uses two main processes to produce its products.

The company manufactures wheels by means of two processes. The first process starts with the rolling flat steel to form the wheel rim. Discs are manufactured by spinning and stamping and the two parts are washed and conveyed to the assembly area. The disc and rim are then welded together to form the wheel. The assembled wheel travels to the paint line where it undergoes a multistage electro-coating paint process. The coated wheel is dried in a curing oven and then conveyed to the stacking area where it is prepared for shipping or sent to a second process for powder coating.

A portion of the electro-coated wheels from the assembly area are processed through a powder coating system. The powder coating process includes pre-washing, drying, powder coating, and oven curing stages. Stage 1 of the pre-wash involves the use of a slightly acidic surfactant cleaner. Stage 2 of the pre-wash is a clean water rinse followed by Stage 3 which is a water/surfactant spray rinse. From the pre-washing cycle, the wheel passes through a natural gas fired drying unit and a chilled-air cooling tunnel. The wheel is then powder coated in an environmentally controlled room

where the booth exhaust is re-circulated into the booth (integral recirculation system). The wheels pass through a natural gas-fired curing oven and are finally conveyed to the stacking area where they are prepared for shipping.

While this source's current PTE is below the major source thresholds for HAPs, the facility has opted to continue being regulated as a major source of HAP and complying with all applicable requirements for major sources of HAP such that operational flexibility in future coating choices is retained.

## SECTION 2 – CURRENT APPLICATION AND EMISSION SUMMARY FORM

Permit Number: V-25-007

Activities: APE20240001

Received: August 14, 2024

Application Complete Date(s): October 3, 2024

Permit Action: ☐ Initial ☒ Renewal ☐ Significant Rev ☐ Minor Rev ☐ Administrative

Construction/Modification Requested? ☐ Yes ☒ No NSR Applicable? ☒ Yes ☐ No

Previous 502(b)(10) or Off-Permit Changes incorporated with this permit action ☒ Yes ☐ No

- APE20200001 – Off-Permit Change – EP 12 (19) rated at 21 MMBtu/hr has been replaced by EP 52, Boiler #2, a new natural gas fired boiler, rated at 20.251 MMBtu/hr
- APE20210001 – Off-Permit Change – EP 09 (27) rated at 21 MMBtu/hr has been replaced by EP 53, Boiler #1, a new natural gas fired boiler, rated at 20.8 MMBtu/hr

### Description of Action:

In this renewal, permitting language and formatting has been updated to be consistent and clear. Also, EP 32, Pretreatment Burner #3, has been removed from the permit because it no longer burns natural gas, but instead uses steam power, and accordingly has no emissions.

Additionally, on August 10, 2022, updates to 40 CFR 60, Subparts IIII and 40 CFR 63, Subpart ZZZZ to remove the vacated emergency demand response provisions were published in the federal register. Accordingly, the existing Vacatur language for emergency demand response in 40 CFR 60, Subparts IIII and 40 CFR 63, Subpart ZZZZ for emergency engines has been removed from the permit and Statement of Basis, and the regulatory language in the permit has been updated to reflect the published changes.

Below is a table that includes the affected facilities used to determine the emission limits under 401 KAR 59:015:

| Summary of All Affected Facilities Used to Determine 401 KAR 59:015 Emission Limits |                          |                     |             |                    |                                                   |                                 |                                                                |                 |
|-------------------------------------------------------------------------------------|--------------------------|---------------------|-------------|--------------------|---------------------------------------------------|---------------------------------|----------------------------------------------------------------|-----------------|
| EU                                                                                  | Fuel(s)                  | Capacity (MMBtu/hr) | Constructed | Basis for PM Limit | Total Heat Input Capacity for PM Limit (MMBtu/hr) | Basis for SO <sub>2</sub> Limit | Total Heat Input Capacity for SO <sub>2</sub> Limit (MMBtu/hr) | Notes           |
| 09                                                                                  | Natural Gas; #2 Fuel Oil | 21                  | 1974        | Section 4(1)(c)    | 42                                                | Section 5(1)(c)2.               | 42                                                             | Removed in 2021 |
| 12                                                                                  | Natural Gas; #2 Fuel Oil | 21                  | 1974        | Section 4(1)(c)    | 42                                                | Section 5(1)(c)2.               | 42                                                             | Removed in 2020 |
| 28                                                                                  | Natural Gas              | 3.8                 | 1981        | Section 4(1)(c)    | 45.8                                              | Section 5(1)(c)2.               | 45.8                                                           | Removed in 2013 |

| Summary of All Affected Facilities Used to Determine 401 KAR 59:015 Emission Limits |                          |                     |             |                    |                                                   |                                 |                                                                |                             |
|-------------------------------------------------------------------------------------|--------------------------|---------------------|-------------|--------------------|---------------------------------------------------|---------------------------------|----------------------------------------------------------------|-----------------------------|
| EU                                                                                  | Fuel(s)                  | Capacity (MMBtu/hr) | Constructed | Basis for PM Limit | Total Heat Input Capacity for PM Limit (MMBtu/hr) | Basis for SO <sub>2</sub> Limit | Total Heat Input Capacity for SO <sub>2</sub> Limit (MMBtu/hr) | Notes                       |
| 30                                                                                  | Natural Gas; #2 Fuel Oil | 5                   | 1982        | Section 4(1)(c)    | 59.6                                              | Section 5(1)(c)2.               | 59.6                                                           |                             |
| 31                                                                                  | Natural Gas; #2 Fuel Oil | 3.8                 | 1982        | Section 4(1)(c)    | 59.6                                              | Section 5(1)(c)2.               | 59.6                                                           | Removed in 2019             |
| 32                                                                                  | Natural Gas; #2 Fuel Oil | 5                   | 1982        | Section 4(1)(c)    | 59.6                                              | Section 5(1)(c)2.               | 59.6                                                           | Started using steam in 2024 |
| 33                                                                                  | Natural Gas;             | 2                   | 1999        | Section 4(1)(c)    | 61.6                                              | Section 5(1)(c)2.               | 61.6                                                           | Replaced by EP 42           |
| 52                                                                                  | Natural Gas; #2 Fuel Oil | 20.251              | 2020        | Section 4(1)(c)    | 51.251                                            | Section 5(1)(c)2.               | 51.251                                                         | Added after 12 was removed  |
| 53                                                                                  | Natural Gas; #2 Fuel Oil | 20.8                | 2021        | Section 4(1)(c)    | 51.051                                            | Section 5(1)(c)2.               | 51.051                                                         | Added after 09 was removed  |

| V-25-007 Emission Summary                      |                   |                    |
|------------------------------------------------|-------------------|--------------------|
| Pollutant                                      | 2023 Actual (tpy) | PTE V-25-007 (tpy) |
| CO                                             | 5.27              | 38.59              |
| NO <sub>x</sub>                                | 6.29              | 70.05              |
| PT                                             | 1.23              | 7.75               |
| PM <sub>10</sub>                               | 1.23              | 8.46               |
| PM <sub>2.5</sub>                              | 0.49              | 3.50               |
| SO <sub>2</sub>                                | 0.04              | 180.60             |
| VOC                                            | 35.27             | 57.58              |
| Lead                                           | 0.00              | 0.002              |
| Greenhouse Gases (GHGs)                        |                   |                    |
| Carbon Dioxide                                 | 7348              | 72809              |
| Methane                                        | 0.14              | 0.90               |
| Nitrous Oxide                                  | 0.014             | 0.41               |
| CO <sub>2</sub> Equivalent (CO <sub>2</sub> e) | 7355              | 72955              |
| Hazardous Air Pollutants (HAPs)                |                   |                    |
| 1-Methoxy-2-Propanol                           | *                 | 2.37               |
| Methyl Isobutyl Ketone                         | 0                 | 2.60               |
| Xylenes (Total)                                | *                 | 2.65               |

| V-25-007 Emission Summary |                   |                    |
|---------------------------|-------------------|--------------------|
| Pollutant                 | 2023 Actual (tpy) | PTE V-25-007 (tpy) |
| Combined HAPs:            | 0.01**            | 8.45               |

\* Not Currently In KYEIS

\*\* Only Actual non-criteria HAPs listed for 2023 were Methyl Isobutyl Ketone, Hexane, and metals Cr, Mg, and Ni

### SECTION 3 – EMISSIONS, LIMITATIONS AND BASIS

| Emission Points #24 (449), Gray Electrocoat Dip Tank for Painting Line 449                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                |                                                 |                                                      |                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------|-----------------------------------------------|
| Pollutant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Emission Limit or Standard                                     | Regulatory Basis for Emission Limit or Standard | Emission Factor Used and Basis                       | Compliance Method                             |
| Organic HAP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | < 2.6 lb per gal coating solids per 12-month compliance period | 40 CFR 63.3890 (b)(1)                           | Various, based on coating formula (reported in MSDS) | Monthly calculation of rolling 12-month total |
| <b>Initial Construction Date:</b> 1982                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                |                                                 |                                                      |                                               |
| <b>Process Description:</b><br>Assembled wheels are dipped in coatings in the tank after pretreatment and before drying in a curing oven.<br>Maximum Capacity: 17,500 gallons.<br>Maximum Throughput: 540 pieces(wheels)/hour.                                                                                                                                                                                                                                                                              |                                                                |                                                 |                                                      |                                               |
| <b>Applicable Regulation:</b><br>401 KAR 63:002, Section 2(4)(rrr). 40 C.F.R. 63.3880 through 63.3981, Tables 1 to 4, and Appendix A (Subpart MMMM), <i>National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products</i> . This regulation is applicable to each new, reconstructed or existing affected source that uses 250 gal/year or more of coatings that contain hazardous air pollutants (HAPs) to coat various metal parts and products. |                                                                |                                                 |                                                      |                                               |
| <b>Comments:</b><br>Calculations are based on coating formulation and engineering estimates from the source. The current coating was substituted in 2013 and eliminated several HAP and VOC emissions. Although the current PTE makes the facility a minor source of HAPs, the continued application of the requirements from 40 CFR 63, Subpart MMMM, allows the source flexibility in the coatings used in the future. This equipment has no control.                                                     |                                                                |                                                 |                                                      |                                               |

| Emission Point #30 Pretreatment Burner #1A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                            |                                                 |                                |                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------------------|--------------------------------|-------------------------------------------|
| Pollutant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Emission Limit or Standard | Regulatory Basis for Emission Limit or Standard | Emission Factor Used and Basis | Compliance Method                         |
| PM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.37 lb/MMBtu              | 401 KAR 59:015, Section 4(1)(c)                 | AP-42 Chapter 1.4, Table 1.4-2 | Assumed based upon natural gas combustion |
| Opacity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 20% opacity                | 401 KAR 59:015, Section 4(2)                    | N/A                            | Assumed based upon natural gas combustion |
| SO <sub>2</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1.4 lbs/MMBtu              | 401 KAR 59:015, Section 5(c)(2)                 | AP-42 Chapter 1.4, Table 1.4-2 | Assumed based upon natural gas combustion |
| <p><b>Initial Construction Date:</b> 1982</p> <p><b>Process Description:</b><br/>Natural gas burners provide heating to cleaning, pretreatment and rinsing operations for Paint Line 449.<br/>Fuel: Natural Gas<br/>Maximum Capacity: 5 MMBtu/hr., Indirect fired units</p> <p><b>Applicable Regulations:</b><br/><b>401 KAR 59:015, New indirect heat exchangers.</b> This regulation is applicable to indirect heat exchangers having a heat input capacity greater than one (1) MMBtu/hr commenced on or after April 9, 1972 (401 KAR 59:015, Section 2(1)).<br/><b>401 KAR 63:002, Section 2(4)(rrr). 40 C.F.R. 63.3880 through 63.3981, Tables 1 to 4, and Appendix A (Subpart MMMM), National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products.</b> This regulation is applicable to each new, reconstructed or existing affected source that uses 250 gal/year or more of coatings that contain hazardous air pollutants (HAPs) to coat various metal parts and products.</p> <p><b>Comments:</b><br/>Emission calculations are based on AP-42 emission factors for burning natural gas. One pretreatment burner (EP 32, Burner #3), that had been switched to steam use rather than natural gas, was removed in the renewal (V-25-007), but the emission limits are unchanged. Additionally, the current PTE makes the facility a minor source of HAPs, but the continued application of the requirements from 40 CFR 63, Subpart MMMM, allows the source flexibility in the coatings used (Refer to EP #24) and negates the applicability of other NESHAP regulations, i.e 40 CFR 63, Subpart DDDDD, <i>National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters</i>.</p> |                            |                                                 |                                |                                           |

| Emission Points #53 & #52, Boilers #1 & #2 |                            |                                                 |                                |                                                                                                      |
|--------------------------------------------|----------------------------|-------------------------------------------------|--------------------------------|------------------------------------------------------------------------------------------------------|
| Pollutant                                  | Emission Limit or Standard | Regulatory Basis for Emission Limit or Standard | Emission Factor Used and Basis | Compliance Method                                                                                    |
| PM                                         | 0.38 lb/MMBtu; each        | 401 KAR 59:015, Section 4(1)(c)                 | AP-42 Chapter 1.4, Table 1.4-2 | 1) Assumed when burning natural gas.<br>2) Monitoring during periods of curtailment #2 fuel oil use. |
| Opacity                                    | 20% opacity                | 401 KAR 59:015, Section 4(2)                    | N/A                            | 1) Assumed when burning natural gas.<br>2) Monitoring during periods of curtailment #2 fuel oil use. |
| SO <sub>2</sub>                            | 1.5 lbs/MMBtu; each        | 401 KAR 59:015, Section 5(c)(1)(b)              | AP-42 Chapter 1.4, Table 1.4-2 | 1) Assumed when burning natural gas.<br>2) Monitoring during periods of curtailment #2 fuel oil use. |

**Initial Construction Date:** 2020 Boiler #2, 2021 Boiler #1

**Process Description:**

Natural gas boilers supplying both process heat (75%) and space heat (25%) for the facility.

For Boiler #1 (EP 53)

Model: Hurst Boiler

Capacity: 20.8 MMBtu/hr, each, Indirect Fired Units

Primary Fuel: Natural gas

Secondary Fuel: #2 Fuel oil, 0.5 % sulfur content, during periods of natural gas curtailment

For Boiler #2 (EP 52)

Model: Hurst Boiler

Capacity: 20.251 MMBtu/hr, each, Indirect Fired Units

Primary Fuel: Natural gas

Secondary Fuel: #2 Fuel oil, 0.5 % sulfur content, during periods of natural gas curtailment

**Applicable Regulation:**

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

**401 KAR 63:002, Section 2(4)(iii), 40 C.F.R. 63.7480 through 63.7532, Tables 1 to 13, (Subpart DDDDD)**, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters*, applicable to affected sources (existing and new or reconstructed industrial, commercial and institutional boilers and process heaters located at a major source of HAPs.)

**Emission Points #53 & #52, Boilers #1 & #2**

**Comments:**

Emission calculations of Criteria and HAPs pollutants were based on AP-42 emission factors for burning natural gas and #2 Fuel Oil. GHG emission calculations were based on 40 CFR 98, and engineering estimates were used for determining PT and PM 2.5 for #2 fuel oil. Finally, the current PTE makes the facility a minor source of HAPs, but the continued application of the requirements of 40 CFR 63, Subpart DDDDD, *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*, provides future flexibility to the facility. For the renewal, some requirements for the previous existing boilers were removed as not applicable to the new replacement boilers.

**Emission Points #40-1, #40-2, & #40-3 Existing Emergency Diesel Generators**

**Initial Construction Date:** 1982

**Process Description:**

Three emergency diesel generators provide emergency back-up power for various essential equipment in the facility. The engines have no add-on emission controls.

EP 40-1: Model: Allis Chalmers – 6 cylinder

Displacement: 7 liter displacement

Engine Rating: 320 HP

EP 40-2: Model: Cat D330 – 4 cylinder

Displacement: 7 liter displacement

Engine Rating: 150 HP

EP 40-3: Model: Detroit 1034 – 4 cylinder

Displacement: 3.5 liter displacement

Estimated Construction: 1982

Engine Rating: 109 HP

**Applicable Regulation:**

**401 KAR 63:002 Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a to 8, and Appendix A (Subpart ZZZZ) *National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*.** This applies to stationary RICE located at a major or area source of HAP emissions. (Existing CI Emergency RICE <500 HP)

**Comments:** Criteria and HAPs pollutant emissions calculated using AP-42 emission factors. PTE is based on the maximum 500 hours/yr run time allowed for emergency generators for non-emergency purposes. Since all of the engines were constructed/commenced in 1982, 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines is not applicable. Additionally, the current PTE makes the facility a minor source of HAPs, but the continued application of the requirements of 40 CFR 63, Subpart ZZZZ – *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)*, that apply to major sources of HAPs, provides future flexibility to the facility.

| Emission Points #44 (B-01) & #45 (B-02) Burn-Off Ovens                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |                                                 |                                                                           |                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------------------|---------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Pollutant                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Emission Limit or Standard | Regulatory Basis for Emission Limit or Standard | Emission Factor Used and Basis                                            | Compliance Method                                                                                            |
| PM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2.34 lb/hr                 | 401 KAR 59:010, Section 3(2)                    | Oven Model Test for oven emissions, AP-42, Table 1.4-2 for NG combustion. | Compliance assumed while burning natural gas and if minimum afterburner temperature of 1400 °F is maintained |
| Opacity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 20 %                       | 401 KAR 59:010, Section 3(1)(a)                 | N/A                                                                       | Qualitative observations. Inspection/repairs or Method 9 if emissions seen.                                  |
| <p><b>Initial Construction Date:</b> March 2017</p> <p><b>Process Description:</b><br/>Two identical natural gas-fired burn-off ovens used to remove bits of old coating off of wheels to be refurbished.</p> <p>Model: Jackson Oven Batch Burn-Off Ovens, Model 8706<br/>Capacity: 100,000 wheels per year, total<br/>Fuel: Natural Gas, 7.65E-04 MMcf/hr (0.79 MMBtu/hr), each</p> <p><b>Applicable Regulation:</b><br/><b>401 KAR 59:010, New process operations</b>, applicable to all process operations, which is not subject to another emission standard with respect to particulates in 401 KAR Chapter 59, commenced on or after July 2, 1975.</p> <p><b>401 KAR 63:020, Potentially hazardous matter or toxic substances.</b> This regulation is applicable to each affected facility which emits or may potentially emit hazardous matter or toxic substances.</p> <p><b>Comments:</b><br/>The facility originally requested authorization of four burn-off ovens, but only installed two. For the installed ovens, emission calculation are based on AP-42 emission factors for those due to burning natural gas. For particulate produced from wheel burn-off, emission factors for PT and PM<sub>10</sub> are from testing an identical model oven and engineering estimates for PM<sub>2.5</sub>. Note that the HAPs emitted from the combustion of natural gas are subject to 401 KAR 63:020, but the use of natural gas, as opposed to other fuels, is sufficient to keep the equipment in compliance with the regulation. Compliance with potential HAPs emissions from wheel burnoff is also assumed if the afterburner remains at a temperature of 1400 °F or above during operation.</p> |                            |                                                 |                                                                           |                                                                                                              |

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

#### **Testing Requirements\Results**

The source, at the time of renewal V-25-007, has not been required to perform any testing.

## SECTION 4 – SOURCE INFORMATION AND REQUIREMENTS

**Table A - Group Requirements:**

| Emission and Operating Limit                                                                                                       | Regulation           | Emission Unit                      |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------|
| Organic HAP Emissions shall be no more than 2.6 lb organic HAP per gal coating solids for each rolling 12-month compliance period. | 40 CFR 63.3890(b)(1) | EPs 24 & 30<br>(Painting Line 449) |

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

| Applicable Regulations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Emission Unit                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <b>401 KAR 59:010</b> , <i>New process operations</i> . Applies to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates in Chapter 59, commenced on or after July 2, 1975.                                                                                                                                                                                                                                                                                                                                                                                | EPs 44 & 45                        |
| <b>401 KAR 59:015</b> , <i>New indirect heat exchangers</i> . Applies to each affected facility commenced on or after April 9, 1972 for a facility with a capacity of 250 MMBtu/hr heat input or less, that is subject to 40 C.F.R. 60.40 through 60.46 (Subpart D), 60.40Da through 60.52Da (Subpart Da), 60.40b through 60.49b (Subpart Db), or 60.40c through 60.48c (Subpart Dc) shall be exempt from Sections 3 through 6 of this administrative regulation for each pollutant covered under this administrative regulation with a specific emission standard in the applicable New Source Performance Standard (NSPS) codified at 40 C.F.R. Part 60. | EPs 52, 53, & 30                   |
| <b>401 KAR 63:002, Section 2(4)(rrr)</b> . <b>40 C.F.R. 63.3880 through 63.3981, Tables 1 to 4, and Appendix A (Subpart MMMM)</b> , <i>National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products</i> . Applies to affected facilities that use 946 liters (250 gallons) per year, or more of coatings that contain HAPs in the surface coating of miscellaneous metal parts and products defined in 40 CFR 63.3881(a); and that is a major source, located at a major source, or is part of a major source of emissions of HAPs.                                                              | EPs 24 & 30<br>(Painting Line 449) |
| <b>401 KAR 63:002 Section 2(4)(eeee)</b> , <b>40 C.F.R. 63.6580 through 63.6675, Tables 1a to 8, and Appendix A (Subpart ZZZZ)</b> <i>National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines</i> . This applies to stationary RICE located at a major or area source of HAP emissions.                                                                                                                                                                                                                                                                                                          | EPs 40-1, 40-2, & 40-3             |
| <b>401 KAR 63:002, Section 2(4)(iiii)</b> . <b>40 C.F.R. 63.7480 through 63.7532, Tables 1 to 13, (Subpart DDDDD)</b> , <i>National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters</i> applies to affected sources (existing and new or reconstructed industrial, commercial and institutional boilers and process heaters located at a major source of HAPs.                                                                                                                                                                                                                   | EPs 52, & 53                       |
| <b>401 KAR 63:020</b> , <i>Potentially hazardous matter or toxic substances</i> . This regulation is applicable to each affected facility which emits or may potentially emit hazardous matter or toxic substances.                                                                                                                                                                                                                                                                                                                                                                                                                                        | EPs 44, & 45                       |

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

N/A

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

N/A

**Air Toxic Analysis**

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

Combustion equipment Compliance with 401 KAR 63:020 is demonstrated by subject through the use of natural gas as fuel. For the Burnoff Ovens (EPs 44 and 45), compliance with this regulation is demonstrated through the use of operating the afterburner at 1400 °F or higher.

For welding equipment (EPs 22, 26 and IA-1) the Division performed SCREEN View on January 28, 2020 of potentially hazardous matter or toxic substances (Chromium, Nickel 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.

**Single Source Determination**

N/A

## SECTION 5 – PERMITTING HISTORY

| Permit      | Permit Type      | Activity#                                | Complete Date | Issuance Date | Summary of Action                              | PSD/Syn Minor |
|-------------|------------------|------------------------------------------|---------------|---------------|------------------------------------------------|---------------|
| V-98-039    | Initial          | Log #F505<br>APE20050001<br>(ARM Record) | 2/20/1998     | 3/5/1998      | Initial Operating Permit                       | N/A           |
| V-07-015    | Renewal          | APE20020001                              | 8/8/2007      | 8/19/2008     | Renewal                                        | N/A           |
| V-13-042    | Renewal          | APE20130001                              | 10/2/2013     | 12/10/2014    | Renewal with Construction of Powder Coat Booth | N/A           |
| V-13-042 R1 | Admin. Amendment | APE20150001                              | 2/23/2015     | 3/13/2015     | Fix signing error                              | N/A           |
| V-13-042 R2 | Minor Revision   | APE2017002                               | 2/28/2017     | 6/12/2017     | Addition of Burn-off Ovens                     | N/A           |
| V-19-021    | Renewal          | APE20190001                              | 6/28/2019     | 6/24/2020     | Permit renewal                                 | Renewal       |

## **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                                  |