

Facility Name: **Kia Georgia, Inc.**
City: West Point
County: Troup
AIRS #: 04-13-285-00084

Application #: TV-642426
Date Application Received: March 23, 2022
Permit No: 3711-285-0084-V-04-0

Program	Review Engineers	Review Managers
SSPP	Ginger Payment	Jeng-Hon Su
ISMU	Bob Scott	Dan McCain
SSCP	Taylor Crocker	Tammy Swindell
Toxics	N/A	N/A
Permitting Program Manager		Steve Allison

Introduction

This narrative is being provided to assist the reader in understanding the content of referenced operating permit. Complex issues and unusual items are explained here in simpler terms and/or greater detail than is sometimes possible in the actual permit. The permit is being issued pursuant to: (1) Georgia Air Quality Act, O.C.G.A § 12-9-1, et seq. and (2) Georgia Rules for Air Quality Control, Chapter 391-3-1, and (3) Title V of the Clean Air Act. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Title 40 of the Code of Federal Regulations promulgated pursuant to the Federal Clean Air Act. The narrative is intended as an adjunct for the reviewer and to provide information only. It has no legal standing. Any revisions made to the permit in response to comments received during the public participation and EPA review process will be described in an addendum to this narrative.

I. Facility Description

A. Facility Identification

1. Facility Name: Kia Georgia, Inc.

2. Parent/Holding Company Name

Kia Motors

3. Previous and/or Other Name(s)

pka: Kia Motors Manufacturing Georgia, Inc.

4. Facility Location

7777 Kia Parkway, West Point, GA 31833 (Troup County)

5. Attainment, Non-attainment Area Location, or Contributing Area

The facility is located in an attainment area.

B. Site Determination

There are no other facilities which could possibly be contiguous or adjacent and under common control.

C. Existing Permits

Table 1 below lists all current Title V permits, all amendments, 502(b)(10) changes, and off-permit changes, issued to the facility, based on a comparative review of form A.6, Current Permits, of the Title V application and the "Permit" file(s) on the facility found in the Air Branch office.

Table 1: List of Current Permits, Amendments, and Off-Permit Changes

Permit Number and/or Off-Permit Change	Date of Issuance/ Effectiveness	Purpose of Issuance
Permit No. 3711-285-0084-V-03-0	September 27, 2017	Title V renewal
Off Permit Change	June 14, 2018	Replacement of four natural gas burners in the ED Oven (Unit ID OEE) and two natural gas burners in the Underbody Sealer Oven (Unit ID OUU).
Off Permit Change	November 9, 2020	Replacement of two natural gas-fired heat exchangers in the Paint Mix Ash – Unit ID MIX with new exhaust stack configuration from one stack to two stacks
Amendment No. 3711-285-0084-V-03-1	July 18, 2021	Name Change
Amendment No. 3711-285-0084-V-03-2	July 22, 2022	Install a second regenerative thermal oxidizer (RTO-2) and to replace and/or add burners on three existing ovens

D. Process Description

1. SIC Codes(s)

3711

The SIC Code(s) identified above were assigned by EPD's Air Protection Branch for purposes pursuant to the Georgia Air Quality Act and related administrative purposes only and are not intended to be used for any other purpose. Assignment of SIC Codes by EPD's Air Protection Branch for these purposes does not prohibit the facility from using these or different SIC Codes for other regulatory and non-regulatory purposes.

Should the reference(s) to SIC Code(s) in any narratives or narrative addendum previously issued for the Title V permit for this facility conflict with the revised language herein, the language herein shall control; provided, however, language in previously issued narratives that does not expressly reference SIC Code(s) shall not be affected.

2. Description of Product(s)

Kia Georgia, Inc. (hereafter “Kia” or “facility”) assembles passenger vehicles from steel blanks that are stamped and molded to form the various body parts and then constructed using preassembled vehicle parts.

3. Overall Facility Process Description

The facility assembles passenger vehicles from steel blanks that are stamped and molded to form the various body parts and then constructed using preassembled vehicle parts. The facility currently has a production capacity of 370,000 vehicles/yr. The plant consists of four main manufacturing centers: Press Shop, Body Shop, Paint Shop, and Assembly Shop.

In the Press Shop, sheet metal is feed to the various stamping machines to form the body parts. There are no air emissions from this portion of the plant.

In the Body Shop, the individual frame and body parts are welded together primarily using robotic arc welders. Some parts have sound deadeners or lubricants added during the part fabrication. Collection hoods over the various welding areas allow the welding emissions to be vented through stacks to the atmosphere. Next, the assembled vehicle body, which is called “body-in-white” is sent to the Paint Shop.

In the Paint Shop, the body-in-white is cleaned using phosphate cleansers, then the entire body is primed using an electrodeposition coating system (E-Coat). The body is then sent through a series of robotic spray booths – first the topcoat primer, then the actual basecoat, and finally the clearcoat. There are touch up booths and various sanding booths. Emissions from the spray booths are controlled with Venturi scrubbers to remove particulates. Emissions from the clear coat booth are also controlled with Venturi Scrubbers and then vented to a regenerative thermal oxidizer. All of the bake ovens are vented to an RTO.

In the Assembly Shop, parts modules, subassemblies, and trim parts are assembled onto the painted body. After that, the operating fluids are added, and the assembled vehicle is tested, adjusted to specification, and repaired as needed. Kia does not manufacture engines for the vehicles. They are brought on-site preassembled. The vehicle is tested on a dynamometer before being sent to adjacent Vehicle Processing Center (VPC) for preparation to be shipped off-site.

The Vehicle Processing Center (VPC) has two minor emission sources. A low VOC water-based underbody coating is applied for long term corrosion protection. Also, at VPC, the vehicles are inspected again for paint defects. Bodies with defects are spot sanded and the paint repaired. Minor paint repairs are accomplished in the touch up spray booth.

4. Overall Process Flow Diagram

The facility provided a process flow diagram in their Title V permit application.

E. Regulatory Status

1. PSD/NSR

The facility is a PSD major source because it has potential to emit more than 250 tons per year (tpy) of volatile organic compounds (VOC) in Troup County. Troup County is classified as “attainment” for SO₂, PM_{2.5}, PM₁₀, NO_x, CO, and ozone (VOC) in accordance with Section 107 of the Clean Air Act, as amended. Since PSD review was triggered for VOC, according to PSD regulations, a PSD analysis was performed for the facility for all pollutants. The potential emissions of PM/PM₁₀, NO_x, and VOC were determined to be above the PSD significant level thresholds. Therefore, a PSD review for VOC, PM/PM₁₀ and NO_x was conducted via Permit No. 3711-285-0084-P-01-0. Any future facility modification causing any increases in criteria pollutant emissions will require a NSR applicability analyses to determine if the modification is major and thus subject to PSD permitting requirements under NSR and/or state regulations.

2. Title V Major Source Status by Pollutant

Table 2: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	✓			✓
PM ₁₀	✓			✓
PM _{2.5}	✓			✓
SO ₂	✓			✓
VOC	✓	✓		
NO _x	✓	✓		
CO	✓		✓	
TRS	✓			✓

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
H ₂ S	✓			✓
Individual HAP	✓	✓		
Total HAPs	✓	✓		
GHG	✓			✓

3. MACT Standards

40 CFR 63 Subpart IIII - NESHAP: Surface Coating of Automobiles and Light-Duty Trucks
NESHAP Subpart IIII limits HAP emissions from the general surface coating operations of automobile assembly plants under two options:

- 0.3 lb HAP per gallons applied coating solids (monthly average) for coating operations of E-coat primer, guide coat (primer surfacer), topcoat, final repair, glass bonding primer, glass bonding adhesive, and all other coatings and thinners, or
- 0.5 lb HAP per gallon applied coating solids (monthly average) for just the guide coat (primer surfacer), topcoat, final repair, glass bonding primer, glass bonding adhesive, and all other coatings and thinners (E-coat primer not included in average), provided that the E-coat operation is either controlled to 95% DE on the cure oven, or coatings contain less than 1% HAP.

The NESHAP also limits HAP emissions to 0.01 lb/lb on sealers, adhesives, and deadeners (monthly average).

NESHAP Subpart IIII contains operating standards for capture and control devices used to meet the HAP emission limits. The RTOs must be operated at the temperature established during emissions testing, and the capture systems must meet flow minimums.

NESHAP Subpart IIII contains work practice standards to minimize HAP usage from cleaning of surface coating and auxiliary equipment. These work practices have been established as BACT.

40 CFR 63 Subpart DDDDD - NESHAP: Industrial, Commercial, and Institutional Boilers and Process Heaters

Water Heaters HW01, HW02, HW03, HW04, and HW05 and all other indirect-fired process heaters (ovens) have heat inputs less than 10 MMBtu/hr and fire natural gas only and thus are considered existing, small gaseous units. These are subject to a biennial tune-up and one-time energy assessment. Because the one-time energy assessment has been completed, conditions for this requirement were not included in the permit. Because all of the water heaters and ovens are less than 10 MMBtu/hr, there are no emission limits for the water heaters and ovens.

40 CFR 63 Subpart ZZZZ - NESHAP: Stationary Reciprocating Internal Combustion Engines

Emergency generator engines, depending on whether an engine's site rating is above 500 brake horsepower, either are exempt from the standards of NESHAP Subpart ZZZZ per 40 CFR 63.6590(b)(1)(i) or must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII or Subpart JJJJ per 40 CFR 63.6590(c)(6).

40 CFR 63 Subpart EEEE - NESHAP: Organic Liquids Distribution (Non-Gasoline)

There are eight chemical storage tanks used to store chemicals with true vapor pressures of less than or equal to 10 millimeters of mercury (0.19 psia). All other tanks that store organic liquids have a capacity of less than 10,000 gallons. None of the organic liquid storage tanks at Kia require controls as stated in the standards of NESHAP Subpart EEEE [40 CFR 63.2343].

4. Program Applicability (AIRS Program Codes)

Program Code	Applicable (y/n)
Program Code 6 - PSD	Yes
Program Code 8 – Part 61 NESHAP	No
Program Code 9 - NSPS	Yes
Program Code M – Part 63 NESHAP	Yes
Program Code V – Title V	Yes

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

Facility wide VOC emissions are limited to 490 tons per year. The issuance of Permit No. 3711-285-0084-P-01-0 limited the facility wide VOC emissions to 452 tpy. This plantwide limit represents the culmination of all the BACT limits and good work practices that were determined to be BACT. Permit No. 3711-285-0084-P-01-1, for an increase to the production capacity and operating hours, increased VOC emissions by 38 tpy to a total of 490 tpy. This increase in VOC emissions did not trigger a PSD review because the increase was less than the significant emission rate level of 40 tpy. A toxic impact assessment was performed during the initial permitting and the facility was in compliance with Georgia Toxic Guidelines.

Facility wide NO_x emissions are limited to 109 tons per year because the PSD and NAAQS modeling presented by Kia in Application No. 17363 were based on this figure. This figure represents NO_x emissions from all fuel burning sources utilized in the process operations of the facility. NO_x generated by general office comfort heating, and assembled automobile engines are not taken into account in this limit.

Facility wide CO emissions are limited to 99 tons per year to avoid PSD and BACT. Kia estimated that potential CO emissions are 94 tons per year using emission factors provided by the burner manufacturers. This figure represents CO emissions from all fuel burning sources utilized in the process operations of the facility. CO generated by general office comfort heating and assembled automobile engines are not taken into account in this limit.

B. Applicable Rules and Regulations

Not applicable.

C. Compliance Status

There are no facility wide compliance issues noted with this application.

D. Permit Conditions

- Condition 2.1.1 limits the VOC emissions from the facility to 490 tpy for a BACT limit determined during a PSD review.
- Condition 2.1.2 limits the NO_x emission from the facility to 109 tpy since this was the NO_x emissions used from modeling during a PSD review.
- Condition 2.1.3 limits the CO emissions to 99 tpy in order to avoid BACT.

III. Regulated Equipment Requirements

A. Equipment List for the Process

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
E-Coat Operations				
EEE	E-Coat Main Dip (electrodeposition of waterborne primer coating)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf 40 CFR 60 Subpart A 40 CFR 60 Subpart MM 40 CFR 63 Subpart A 40 CFR 63 Subpart IIII	--	--
OEE	E-Coat Oven (direct fired)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g) NO _x BACT limit of 0.09 lb/MMBtu heat input 40 CFR 60 Subpart A 40 CFR 60 Subpart MM	RTO1/ RTO2	Regenerative Thermal Oxidizers
Guide Coat (Primer) Operations				
BSS	Guide Coat (Primer) Spray Booth	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf 40 CFR 60 Subpart A 40 CFR 60 Subpart MM 40 CFR 63 Subpart A 40 CFR 63 Subpart IIII	SPS1	Venturi Scrubber
OSS	Guide Coat (Primer) Oven (indirect fired)	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) NO _x BACT limit of 0.09 lb/MMBtu heat input 40 CFR 60 Subpart A 40 CFR 60 Subpart MM 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD	RTO1/ RTO2	Regenerative Thermal Oxidizers
Top Coat 1 Operations				
BT1B	Topcoat #1 Basecoat Spray Booth	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf 40 CFR 60 Subpart A 40 CFR 60 Subpart MM 40 CFR 63 Subpart A 40 CFR 63 Subpart IIII	SBS1	Venturi Scrubber
FT1	Topcoat #1 Flash Heater (indirect fired)	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) NO _x BACT limit of 0.09 lb/MMBtu heat input 40 CFR 60 Subpart A 40 CFR 60 Subpart MM 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD	--	--

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
BT1C	Topcoat #1 Clearcoat Spray Booth	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf 40 CFR 60 Subpart A 40 CFR 60 Subpart MM 40 CFR 63 Subpart A 40 CFR 63 Subpart IIII	SCS1 RTO1/ RTO2	Venturi Scrubber Regenerative Thermal Oxidizers
OT1	Topcoat #1 Oven (indirect fired)	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) NO _x BACT limit of 0.09 lb/MMBtu heat input 40 CFR 60 Subpart A 40 CFR 60 Subpart MM 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD	RTO1/ RTO2	Regenerative Thermal Oxidizers
Top Coat 2 Operations				
BT2B	Topcoat #2 Basecoat Spray Booth	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf 40 CFR 60 Subpart A 40 CFR 60 Subpart MM 40 CFR 63 Subpart A 40 CFR 63 Subpart IIII	SBS2	Venturi Scrubber
FT2	Topcoat #2 Flash Heater (indirect fired)	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) NO _x BACT limit of 0.09 lb/MMBtu heat input 40 CFR 60 Subpart A 40 CFR 60 Subpart MM 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD	--	--
BT2C	Topcoat #2 Clearcoat Spray Booth	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf 40 CFR 60 Subpart A 40 CFR 60 Subpart MM 40 CFR 63 Subpart A 40 CFR 63 Subpart IIII	SCS2 RTO1/ RTO2	Venturi Scrubber Regenerative Thermal Oxidizers
OT2	Topcoat #2 Oven (indirect fired)	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) NO _x BACT limit of 0.09 lb/MMBtu heat input 40 CFR 60 Subpart A 40 CFR 60 Subpart MM 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD	RTO1/ RTO2	Regenerative Thermal Oxidizers
Underbody Operations				
BUU	Underbody Sealer Booth	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf 40 CFR 63 Subpart A 40 CFR 63 Subpart IIII	FUB1	Dry Filter

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
OUU	Underbody Sealer Oven (direct fired)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(g) NO _x BACT limit of 0.09 lb/MMBtu heat input	RTO1/ RTO2	Regenerative Thermal Oxidizers
Other Operations				
BWF	Wax Booth	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf 40 CFR 63 Subpart A 40 CFR 63 Subpart IIII	FCW	Dry Filter
WRR	Touch-Up Spray Booths	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf 40 CFR 63 Subpart A 40 CFR 63 Subpart IIII	FRB1	Dry Filter
VPTU	Vehicle Processing Center Paint Repair Booths	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf 40 CFR 63 Subpart A 40 CFR 63 Subpart IIII	FVP	Dry Filter
APB1	Final Repair Booths	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf 40 CFR 63 Subpart A 40 CFR 63 Subpart IIII	FAP1	Dry Filter
Work Decks				
WDR	General Sanding/Repair Work Decks with Touch-up Painting	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf,	FRS1	Dry Filter
WDE	E-Coat Sanding Work Deck with Touch-up Painting	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf	FES1	Dry Filter
WRE	E-Coat Repair Work Deck with Touch-Up Painting	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf	FER1	Dry Filter
WDS	Guide Coat (Primer) Sanding Work Deck with Touch-up Painting	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf	FPS1	Dry Filter
WRS	Guide Coat (Primer) Sanding Work Deck with Touch-up Painting	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf	FWR	Dry Filter
WIT	Inspection Deck with Touch-up Painting	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(t) PM BACT limit of 0.0015 gr/dscf	FID1	Dry Filter
Other Sources				

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
HW01- HW05	Hot Water Heaters (Indirect Fired)	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) NO _x BACT limit of 0.09 lb/MMBtu heat input, 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD	--	--
GEN	Emergency Generators	391-3-1-.02(2)(b) 391-3-1-.02(2)(g)2. 40 CFR 60 Subpart A 40 CFR 60 Subpart IIII	--	--
FP	Fire Pump	391-3-1-.02(2)(b) 391-3-1-.02(2)(g)2. 40 CFR 60 Subpart A 40 CFR 60 Subpart IIII	--	--
GST	Gasoline Storage Tanks	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	--	--
WSC	Skid Cleaning	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) PM BACT limit of 0.0015 gr/dscf	--	--
MIX	Paint Mix Room	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) PM BACT limit of 0.0015 gr/dscf	--	--

* Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards are intended as a compliance tool and may not be definitive.

B. Equipment & Rule Applicability

SIP Rules

The facility will continue to be subject to Georgia Rule (b) - *Visible Emissions*.

The boilers (HW01 through HW05) and the indirect-fired ovens will continue to be subject to Georgia Rule (d) - *Fuel-burning Equipment*.

The manufacturing activities and process spray booths having particulate emissions are subject to Georgia Rule (b) - *Visible Emissions* and Georgia Rule (e) - *Particulate Emission from Manufacturing Processes*. BACT has been established as high efficiency filters and wet venturi scrubbers meeting an exit loading of 0.0015 gr/dscf. The direct-fired ovens will be subject to Georgia Rule (e) instead of Georgia Rule (d).

All of the fuel burning sources will be subject to Georgia Rule (g) – Sulfur Dioxide. Because all fuel burning sources combust either natural gas (with minimum sulfur content) or distillate fuel oils (less than 0.5% sulfur by definition), the facility will be inherently in compliance with this rule (2.5% fuel sulfur limit).

The assembly and surface coating operations are subject to Georgia Rule (t) - *VOC Emissions from Automobile and Light-Duty Truck Manufacturing* is applicable to the surface coating of automobiles manufactured at the facility. Calculations were reviewed for the initial Title V application which confirmed that the Kia meets all the applicable limits in this rule without the use of a control device.

Because the solvent degreasing operations are not expected to exceed 100 tpy VOC, it is not subject to Georgia Rule (ff) – *Solvent Metal Cleaning*. However, compliance with the work practice standards of this rule is established as BACT.

The fuel-burning equipment is not subject to Georgia Rule (lll) - *NO_x Emissions from Fuel-Burning Equipment* because none of the equipment exceed 10 MMBtu/hr which is the threshold for applicability.

The fuel-burning equipment are not subject to Georgia Rule (rrr) – *NO_x Emissions From Small Fuel-Burning Equipment* because facility is located in Troup County which is not one of the targeted counties for applicability.

Though the emergency standby stationary engines are subject to Georgia Rule (mmm) - *NO_x Emissions from Stationary Gas Turbines and Stationary Engines used to Generate Electricity*, the emission limitation located in 391-3-1-.02(2)(mmm)1. is not applicable because they are limited to 200 hours per year.

Georgia Rule (rr) - *Gasoline Dispensing Facility - Stage I* is not applicable since the facility is not located in the applicability area. However, the work practice standards of this rule have been established as BACT.

Georgia Rule (vv) - *Volatile Organic Liquid Handling and Storage* is not applicable since the facility is not located in the applicability area. However, the work practice standards of this rule (modified to exempt low-volatility liquids) have been established as BACT.

40 CFR 60 (New Source Performance Standards)

40 CFR 60 Subpart MM – NSPS: Auto and Light Duty Truck Surface Coating Operations

Subpart MM limits VOC emissions as follows:

Prime coating (E-Coat operation) - 0.17 kg VOC/liter applied coating solid (1.42 lb/gal) on a monthly basis. Kia meets this limit without consideration of the RTO.

Guide coating (primer surfacer) - 1.40 kg VOC/liter applied coating solid (11.7 lb/gal) on a monthly basis. Kia meets this limit for primer surfacer without consideration of an RTO.

Top coating (basecoat and clear coat operation) - 1.47 kg VOC/liter applied coating solid (12.27 lb/gal) on a monthly basis. Kia meets this limit without consideration of an RTO.

40 CFR 60 Subpart Dc - NSPS: Small Industrial Steam Generating Units

This rule does not apply to any of the heaters at Kia. None of the indirect-fired heaters (including HOW01, HW02, HW03, HW04, and HW05) at Kia have heat inputs equal or greater than the 10 MMBtu/hr applicability threshold for Subpart Dc.

40 CFR 60 Subpart Kb - NSPS: Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984

This rule does not apply to petroleum liquid storage tanks because their capacity is below the threshold of 75 m³. This rule does not apply to chemical storage tanks because these have a true vapor pressure below the threshold of 3.5 kPa.

40 CFR 60 Subpart IIII - NSPS: Stationary Compression Ignition Internal Combustion Engines

All diesel-fired emergency generators and fire pumps are subject to this rule. The two main requirements of the NSPS are emission standards that must already be achieved by the engine manufacturer as part of the tier 2 non-road engine rule, and the fuel sulfur content limits already set in place by other supplier-based regulations.

40 CFR 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories (a.k.a. Maximum Achievable Control Technology (MACT))

40 CFR 63 Subpart IIII - NESHAP: Surface Coating of Automobiles and Light-Duty Trucks

NESHAP Subpart IIII limits HAP emissions from the general surface coating operations of automobile assembly plants under two options:

- 0.3 lb HAP per gallons applied coating solids (monthly average) for coating operations of E-coat primer, guide coat (primer surfacer), topcoat, final repair, glass bonding primer, glass bonding adhesive, and all other coatings and thinners, or
- 0.5 lb HAP per gallon applied coating solids (monthly average) for just the guide coat (primer surfacer), topcoat, final repair, glass bonding primer, glass bonding adhesive, and all other coatings and thinners (E-coat primer not included in average), provided that the E-coat operation is either controlled to 95% DE on the cure oven, or coatings contain less than 1% HAP.

The NESHAP also limits HAP emissions to 0.01 lb/lb on sealers, adhesives, and deadeners (monthly average).

NESHAP Subpart IIII contains operating standards for capture and control devices used to meet the HAP emission limits. The RTO must be operated at the temperature established during emissions testing, and the capture systems must meet flow minimums.

NESHAP Subpart IIII contains work practice standards to minimize HAP usage from cleaning of surface coating and auxiliary equipment. These work practices have been established as BACT.

Note that 40 CFR 63 Subpart IIII was amended in July and November 2020. There are many amended or new requirements that were effective on January 5, 2021. These changes have been incorporated into the proposed Title V renewal permit.

40 CFR 63 Subpart DDDDD - NESHAP: Industrial, Commercial, and Institutional Boilers and Process Heaters

Water Heaters HW01, HW02, HW03, HW04, and HW05 and all other indirect-fired process heaters (ovens) have heat inputs less than 10 MMBtu/hr and fire natural gas only and thus are considered existing, small gaseous units. These are subject to a biennial tune-up and one-time energy assessment. Because the one-time energy assessment has been completed, conditions for this requirement were not

included in the permit. Because all of the water heaters and ovens are less than 10 MMBtu/hr, there are no emission limits for the water heaters and ovens.

40 CFR 63 Subpart ZZZZ - NESHAP: Stationary Reciprocating Internal Combustion Engines

Emergency generator engines, depending on whether an engine's site rating is above 500 brake horsepower, either are exempt from the standards of NESHAP Subpart ZZZZ per 40 CFR 63.6590(b)(1)(i) or must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII or Subpart JJJJ per 40 CFR 63.6590(c)(6).

40 CFR 63 Subpart EEEE - NESHAP: Organic Liquids Distribution (Non-Gasoline)

There are eight chemical storage tanks used to store chemicals with true vapor pressures of less than or equal to 10 millimeters of mercury (0.19 psia). All other tanks that store organic liquids have a capacity of less than 10,000 gallons. None of the organic liquid storage tanks at Kia require controls as stated in the standards of NESHAP Subpart EEEE [40 CFR 63.2343].

Best Available Control Technology (BACT) Analysis

A BACT analysis was required for PSD pollutants and was conducted in Application No. 17363 (Permit No. 3711-285-0084-P-01-0 for VOC, NO_x, and PM-10 (all PM emissions are assumed to be PM-10)). No BACT review was required for any of the other pollutants that emitted from the Kia facility. The following is a summary of results from the BACT analysis.

Facility-Wide VOC Emissions

In order to ensure that the economic and technical analyses of the various VOC control options remain valid for all operating scenarios, a plant-wide VOC emission limit of 490 tons per year (based on a 12-month rolling total) was used. The plant-wide VOC limit represents the culmination of all the BACT limits and good work practices that were determined to be BACT.

BACT Review for Body Shop Processes

VOC emissions from the body shop clean-up are addressed in Georgia Rule (t).

BACT Review for Paint Shop Processes

VOC from Primecoat (E-Coat) Operations:

The BACT limit for the primecoat operations is 0.19 pounds of VOC emitted per gallon of applied coating solids, as averaged on a monthly basis.

VOC from Guidecoat (surfacers) Operations:

The BACT limit for the guide coat (surfacers) operations is 2.92 pounds of VOC emitted per gallon of applied coating solids, as averaged on a monthly basis.

VOC from Topcoat Operations:

The BACT limit for the topcoat operations (basecoat and clearcoat) operations is 5.20 pounds of VOC emitted per gallon of applied coating solids (including VOC from purging of paint guns), as averaged on a monthly basis.

VOC from Application of Sealers and Sound Deadeners

The combined VOC content of all sealers and sound deadeners is limited to 0.45 pounds per gallon as applied, averaged on a monthly basis.

VOC from Application of Cavity Wax and Blackout Coatings

The VOC content of cavity wax is limited to 0.3 pounds per gallon as applied averaged on a monthly basis, and the VOC content of blackout coatings is limited to 1.0 pounds per gallon as applied averaged on a monthly basis.

VOC from Purge, Cleaning, and Body Wipe Operations:

A BACT limit of 90 tons during any twelve consecutive months for combined VOC emissions from body wiping, strippable paint booth coatings and equipment cleaning processes at the plant, is used. Furthermore, the Division has included additional conditions in the permit to further enforce work practice standards intended to reduce evaporative losses from cleaning operations within the paint shop and other areas of the manufacturing facility.

VOC from Final Repair and Touch-up Coatings

The use of coatings complying with the existing applicable standards and no add-on VOC control is BACT for these operations.

PM-10 from Surface Coating Operations:

It has been determined that the BACT limit is a PM emission limit of 0.0015 grains per dry standard cubic foot of exhaust air. The Division has also included a filter inspection and replacement requirement for the dry particulate filtration systems as a BACT requirement for PM10 from the paint shop.

Due to the nature of application, the paint from E-coat Main Dip EEE does not evaporate quickly and much of the emissions are “carried over” to the oven, where it is released in the high temperature environment of the curing oven. As a result, the dip tank does not need controls. The associated oven is controlled by an RTO.

NO_x from Direct and Indirect Fired Process Heaters in Paint Shop:

The use of natural gas burners and a NO_x limit of 0.09 lb/MMBtu is determined as BACT.

*BACT Review for Assembly Shop Operations*VOC Emissions from Glazing Operations:

The use of low solvent formulations, where appropriate, and conformance with the applicable requirements of Georgia Rule (t) for VOC emissions from automobile manufacturing and the NESHAP for automobile surface coating is BACT without any additional limits for VOC emissions from glazing operations in the assembly shops.

Vehicle Processing Center Underbody Wax Application:

Kia proposed as BACT for this process the use of low-VOC water-based product. The Division did not specify BACT for VOC emissions from the underbody wax application operations beyond that required by Georgia rules and general emission requirements of the permit.

VOC Emissions from Fluids Filling Operations:

VOC emissions from the filling of vehicle fluids is negligible since the vehicles are equipped with on-board vapor recovery systems to minimize evaporative losses during re-fueling, therefore, no BACT evaluation is warranted.

VOC, PM, and NO_x Emissions from the Functional Test Stands:

Pursuant to U.S. EPA policy memos, emissions from these sources are considered to be mobile source emissions, not subject to PSD review. Therefore, BACT for the assembled vehicle test stands was not evaluated.

VOC Emissions from Tank Farm Storage Operations:

The Division has included design and work practice standards as BACT requirements for the tank farm. Stage I vapor controls with submerged fill and vapor return line from the storage tanks to the delivery vessel are being required for the gasoline storage tanks. Submerged fill pipes are being required for other tanks over 4000 gallons that store volatile organic liquids with a maximum true vapor pressure greater than 3.5 kilopascals. These requirements are based on VOC regulations that are required in the Atlanta non-attainment area for similar emissions units (Georgia Rules (rr) and (vv)).

*BACT Review for Support Utilities*Hot Water Generators:

BACT for NO_x emissions from the five boilers (HW01, HW02, HW03, HW04, and HW05) is a low NO_x burner emission limit of 0.036 pounds NO_x per MMBtu while burning natural gas (30 ppm NO_x at 3% oxygen). These boilers can only burn natural gas so all references to fuel oil usage has been deleted. Vendor's written guarantee is used to show compliance with 30 ppm NO_x at 3% oxygen.

Emergency Generators:

It was determined that BACT for the emergency power generators is conformance with the NSPS for stationary internal combustion engines. The Georgia rules impose an annual operating hour cap for each generator at 200 hours per year, and the NSPS limits emergency stationary engines to 100 hours per year for maintenance checks and readiness testing.

C. Permit Conditions

- Condition 3.2.1 specifies the PM BACT limit of 0.0015 gr/dscf. All operations using high-efficiency dry filters are considered to be equipped with BACT.
- Condition 3.2.2 is a BACT limit requiring 95% destruction efficiency from the RTOs. The topcoat basecoat booths (ID Nos. BT1B and BT2B) do not vent to the RTOs because the coatings in these booths only use a waterborne coating. The topcoat basecoat booths bake in an oven before being vented to the atmosphere. The topcoat clearcoat spray booths do need to be controlled by the RTOs which is shown in the updated table for this condition.
- Conditions 3.2.3 through 3.2.8 establish the BACT limits for the major surface coating groups, in either units of VOC emitted per gallon coating solids applied (transfer efficiency taken into account), or in units VOC weight content.
- Condition 3.2.9 establishes as BACT a VOC emission limit in tons per year for miscellaneous VOC usage, excluding VOC from certain other activities.

- Condition 3.2.10 establishes the BACT NO_x limit on all process heaters that are direct-fired (spray booth heating) or indirect-fired (ovens). The individual burner and heat exchanger size on all indirect-fired equipment is less than 10 MMBtu/hr; therefore, these units are not subject to Rule (III).
- Condition 3.2.11 establishes as VOC BACT the work practice standards that are part of MACT III.
- Condition 3.2.12 establishes VOC BACT for gasoline dispensing, mirroring Georgia Rule (rr) – Stage 1 vapor recovery.
- Condition 3.2.13 establishes VOC BACT for storage tanks, similar to Georgia Rule (vv) – submerged fill pipes but providing a minimum vapor pressure threshold.
- Condition 3.2.14 establishes VOC BACT for any cold solvent degreasers, mirroring Georgia Rule (ff).
- Condition 3.2.15 establishes a VOC BACT work practice standard requiring containment of VOC-laden materials.
- Condition 3.2.16 establishes the BACT NO_x limit on the hot water heaters (HW01, HW02, HW03, HW04, and HW05) and encompasses Georgia Rule (III) and extends the 30 ppm beyond ozone season to all periods when natural gas is used. These boilers can only burn natural gas so all references to fuel oil usage have been deleted. Vendor's written guarantee is used to show compliance with 30 ppm NO_x at 3% oxygen.
- Condition 3.2.17 is a BACT VOC limit for the rocker panel coating that was established in Permit No. 3711-285-0084-P-01-0. The facility has been complying with this BACT limit.
- Condition 3.3.1 is a new condition which subjects the applicable emission units to 40 CFR 63 Subpart III.
- Conditions 3.3.2 through 3.3.4 establish HAP limits from 40 CFR 63 Subpart III.
- Condition 3.3.5 establishes control devices operating standards from 40 CFR 63 Subpart III.
- Conditions 3.3.6 through 3.3.8 establish the work practice standards from 40 CFR 63 Subpart III.
- Condition 3.3.9 is a new condition which subjects the applicable emission units to 40 CFR 60 Subpart MM.
- Conditions 3.3.10 through 3.3.12 establish the VOC limits from 40 CFR 60 Subpart MM.
- Conditions 3.3.13 and 3.3.14 subject the hot water heaters and the ovens to 40 CFR 63 DDDDD (Boiler MACT) and to the biennially tune-up required for the Boiler MACT. Because all of the units are less than 10 MMBtu/hr, there are no emission limits for these emission units. The requirement for the one-time energy assessment was not included since this requirement has already been completed.
- Conditions 3.3.15 through 3.3.19 establish the requirements of 40 CFR 60 Subpart III to all diesel-fired internal combustion engines, including emergency electrical generators and fire pumps. The conditions were updated include applicable emission standards.
- Condition 3.4.1 subjects the applicable equipment to Georgia Rule (b).
- Condition 3.4.2 subjects the applicable equipment to Georgia Rule (e).
- Condition 3.4.3 subject the applicable equipment to Georgia Rule (d).
- Condition 3.4.4 limits fuels used at the facility to natural gas, propane, and distillate fuel (including diesel fuel) and thus subsumes Georgia Rule (g).
- Condition 3.4.5 limits emergency generators to 200 hours per year to avoid being subject to the Georgia Rule (mmm) NO_x emission limit.
- Conditions 3.4.6 through 3.4.10 establish Georgia Rule (t).

- Condition 3.4.11 sets operating limits for the RTOs and capture system in order to ensure compliance with Rule (t). Note that Kia can meet almost all the Rule (t) limits without consideration of VOC control.

IV. Testing Requirements (with Associated Record Keeping and Reporting)

A. General Testing Requirements

The permit includes a requirement that the Permittee conduct performance testing on any specified emission unit when directed by the Division. Additionally, a written notification of any performance test(s) is required 30 days (or sixty (60) days for tests required by 40 CFR Part 63) prior to the date of the test(s) and a test plan is required to be submitted with the test notification. Test methods and procedures for determining compliance with applicable emission limitations are listed and test results are required to be submitted to the Division within 60 days of completion of the testing.

B. Specific Testing Requirements

Existing Conditions 4.2.4 and 4.2.5, which concerned initial performance testing for RTO2, and existing Condition 4.2.6, which concerned a NO_x performance test on at least one of the ovens (OEE, OSS, and OUU), were not included in the permit renewal because these requirements have been completed.

- Condition 4.2.1 requires performance tests for each mission capture system and add-on emission control device for sources subject to 40 CFR 63 Subpart IIII and includes the requirements for the tests.
- Condition 4.2.2 requires VOC destruction efficiency performance tests for the RTOs.
- Condition 4.2.3 requires performance tests every 60 months (5 years) to determine the capture efficiency of each capture system exhausting to RTOs.

V. Monitoring Requirements

A. General Monitoring Requirements

Condition 5.1.1 requires that all continuous monitoring systems required by the Division be operated continuously except during monitoring system breakdowns and repairs. Monitoring system response during quality assurance activities is required to be measured and recorded. Maintenance or repair is required to be conducted in an expeditious manner.

B. Specific Monitoring Requirements

- Conditions 5.2.1 through 5.2.4 detail the monitoring requirements for 40 CFR 63 Subpart IIII. The conditions require a continuous parameter monitoring systems (CPMS) for the RTOs gas/combustion temperature and CPMS for each capture system feeding the RTOs. The requirements for requirements for each emission capture system and the operation and maintenance for each CPMS is included in the conditions.
- Condition 5.2.5 requires a meter to track hours for the emergency stationary diesel generators and fire pump engines and records of the reason for operation as required by 40 CFR 60 Subpart IIII and Georgia Rule (mmm).
- Condition 5.2.6 subjects the emergency generators to 40 CFR 60 Subpart IIII.
- Condition 5.2.7 requires that the pressure be monitored for the wet scrubbers.
- Condition 5.2.8 requires monthly inspections and records for the work practice standards.
- Condition 5.2.9 requires inspection and replacement of the dry filters for the paint booths.
- Condition 5.2.10 requires records for proper sealing the vapor return line of gas storage and for the Stage I recovery system.
- Condition 5.2.11 requires the facility to maintain records containing the vendor's written guarantee for Boilers HW01, HW02, HW03, HW04, and HW05.

C. Compliance Assurance Monitoring (CAM)

Compliance Assurance Monitoring (CAM) is not applicable because there are no individual emission sources with an uncontrolled PTE that exceed the major source threshold for any pollutants.

VI. Record Keeping and Reporting Requirements

A. General Record Keeping and Reporting Requirements

The Permit contains general requirements for the maintenance of all records for a period of five years following the date of entry and requires the prompt reporting of all information related to deviations from the applicable requirements. Records, including identification of any excess emissions, exceedances, or excursions from the applicable monitoring triggers, the cause of such occurrence, and the corrective action taken, are required to be kept by the Permittee and reporting is required on a semiannual basis.

B. Specific Record Keeping and Reporting Requirements

- Condition 6.1.7b.i. is the exceedance reporting for VOC emissions exceeding 490 tpy.
- Condition 6.1.7b.ii. is the exceedance reporting for NO_x emissions exceeding 109 tpy.
- Condition 6.1.7b.iii. is the exceedance reporting for CO emission exceeding 99 tpy.
- Condition 6.1.7b.iv. is the exceedance reporting for exceeding 90 tpy of VOC emissions from body wiping, strippable paint booth coatings, and equipment cleaning processes.
- Condition 6.1.7b.v. is the exceedance reporting for exceeding the BACT VOC emission limits in Conditions 3.2.3 through 3.2.8.
- Condition 6.1.7b.vi. is the exceedance reporting for 12-month HAP emissions from coating operations that exceed the NESHAP IIII limits.
- Condition 6.1.7b.vii. is the exceedance reporting for any monthly average HAP emissions from all adhesives, and sealers (other than glass bonding sealer) exceeding 0.1 lb/lb material.
- Condition 6.1.7b.viii. is the exceedance reporting for any monthly average HAP emissions from all deadener material exceeding 0.01 lb/lb material.
- Condition 6.1.7b.ix.. is the exceedance reporting for any month of VOC emissions from the E-coat, guide coat (primer surfacer) or topcoat operations exceed the respective NSPS limit in Conditions 3.3.10 through 3.3.12.
- Condition 6.1.7b.x. is the exceedance reporting for exceeding the VOC emission limits for Georgia Rule (t).
- Condition 6.1.7b.xi. is the exceedance reporting for any fuel oil sulfur content of fuel fired in emergency generators subject to 40 CFR 60 Subpart IIII exceeding 0.0015 percent sulfur.
- Condition 6.1.7c.i. is the excursion reporting for any three-hour block period where the temperature of the RTO1, while RTO1 is being used to control emissions, is below the minimum temperature set point established during the most recent performance test.
- Condition 6.1.7c.ii. is the excursion reporting for any three-hour block period where the average gas volumetric flow or duct pressure on any VOC emissions capture system is lower than the minimum flow rate or minimum (suction) pressure established during the most recent performance test.
- Condition 6.1.7c.iii. is the excursion reporting for not performing the filter inspection or replacement.
- Condition 6.1.7c.iv. is the excursion reporting for two consecutive readings of wet scrubber pump pressure that are less than 80% of the design value.
- Condition 6.1.7c.v. is the excursion reporting for not complying with the work practice standards.

- Condition 6.1.7c.vi. is the excursion reporting for exceeding 200 hours per year for any emergency operating/power generating time.
- Condition 6.1.7c.vii. is the excursion reporting for any three-hour block period where the temperature of the RTO2, while RTO2 is being used to control emissions, is below the minimum temperature set point established during the most recent performance test.
- Condition 6.2.1 requires the facility to maintain records of coating operations and/or production processes/activities including appropriate batch, shipment, daily and/or monthly material usage and/or operation/production records to determine compliance with the VOC limits of Georgia Rule (t) and 40 CFR 60 Subpart MM.
- Condition 6.2.2 requires the facility to use the operation/production records to determine the total number of vehicles produced during each month.
- Conditions 6.2.3 through 6.2.8 detail the record keeping and reporting requirements to demonstrate compliance with Rule (t) and 40 CFR 60 Subpart MM. The conditions include calculations to determine emissions from the operations subject to this rule and NSPS. The conditions require notification of exceedances.
- Conditions 6.2.9 through 6.2.32 detail the record keeping, reporting, and emissions calculation requirements of 40 CFR 63 Subpart IIII.
- Conditions 6.2.33 through 6.2.40 detail the record keeping and reporting requirements for emergency generators and fire pumps subject to 40 CFR 60 Subpart IIII. These conditions also provide compliance demonstration records for Rule (mmm) avoidance.
- Conditions 6.2.41 and 6.2.42 require record keeping for compliance with the BACT requirement of Stage 1 vapor balance for gasoline dispensing.
- Conditions 6.2.43 through 6.2.47 detail the record keeping requirements to demonstrate ongoing compliance with the VOC BACT limits and the facility wide VOC limit. The conditions required notifications for any exceedances. The conditions include calculations to determine emissions.
- Conditions 6.2.48 through 6.2.50 detail the record keeping requirements to demonstrate ongoing compliance with the facility wide NO_x and CO limit. The conditions required notifications for any exceedances. The conditions include calculations to determine emissions.

VII. Specific Requirements

A. Operational Flexibility

- None applicable.

B. Alternative Requirements

- None applicable.

C. Insignificant Activities

See Permit Application on GEOS website.
See Attachment B of the permit

D. Temporary Sources

- None applicable.

E. Short-Term Activities

- None applicable.

F. Compliance Schedule/Progress Reports

- Not applicable.

G. Emissions Trading

- Not applicable.

H. Acid Rain Requirements

- Not applicable

I. Stratospheric Ozone Protection Requirements

- Not applicable.

J. Pollution Prevention

- Not applicable.

K. Specific Conditions

- There are no additional facility-specific conditions that are not covered elsewhere.

VIII. General Provisions

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.

Template Condition 8.14.1 was updated in September 2011 to change the default submittal deadline for Annual Compliance Certifications to February 28.

Template Condition Section 8.27 was updated in August 2014 to include more detailed, clear requirements for emergency generator engines currently exempt from SIP permitting and considered insignificant sources in the Title V permit.

Template Condition Section 8.28 was updated in August 2014 to more clearly define the applicability of the Boiler MACT or GACT for major or minor sources of HAP.

Addendum to Narrative

The 30-day public review started on month day, year and ended on month day, year. Comments were/were not received by the Division.

//If comments were received, state the commenter, the date the comments were received in the above paragraph. All explanations of any changes should be addressed below.//