

Facility Name: GATX-Waycross

City: Waycross

County: Ware

AIRS #: 04-13-299-00015

Application #: 885589

Date SIP Application Received: January 23, 2025

Date Title V Application Received: December 17, 2024

Permit No: 4741-299-0015-V-04-3

<b>Program</b>	<b>Review Engineers</b>	<b>Review Managers</b>
<b>SSPP</b>	Tyneshia Tate	Wendy Troemel
<b>SSCP</b>	Afunya Addo-Osafo	Tammy Swindell
<b>ISMU</b>	Marcus Cureton	Dan McCain
<b>TOXICS</b>	n/a	n/a
<b>Permitting Program Manager</b>		Steve Allison

## Introduction

This narrative is being provided to assist the reader in understanding the content of the referenced SIP permit to construct and draft operating permit amendment. Complex issues and unusual items are explained in simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being issued pursuant to: (1) Sections 391-3-1-.03(1) and 391-3-1-.03(10) of the Georgia Rules for Air Quality Control, (2) Part 70 of Chapter I of Title 40 of the Code of Federal Regulations, and (3) Title V of the Clean Air Act Amendments of 1990. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public comment period and EPA review process will be described in an addendum to this narrative.

**I. Facility Description****A. Existing Permits**

Table 1 below lists the current Title V permit, and all administrative amendments, minor and significant modifications to that permit, and 502(b)(10) attachments.

Table 1: Current Title V Permit and Amendments

<b>Permit/Amendment Number</b>	<b>Date of Issuance</b>	<b>Description</b>
4741-299-0015-V-04-0	August 14, 2018	Title V Permit Renewal
4741-299-0015-V-04-1	December 13, 2018	502(b)(10) Change to install two new interior blasting sites.
4741-299-0015-V-04-2	June 28, 2021	502(b)(10) Change to construct and operate three new interior blasting sites (ID Nos. 011A/011B, 0022, and 0026) and two new baghouses (ID Nos. C11 and C26) to replace existing sites and associated controls.

**B. Regulatory Status****1. PSD/NSR/RACT**

GATX – Waycross (hereinafter “facility”) is located in Ware County, an attainment area for all criteria pollutants. The facility is not one of the 28 named source categories under Prevention of Significant Deterioration (PSD) regulations. To remain as a "minor" source under the PSD regulation, the permit contains a facility wide PSD minor limit of 112 tons per year on VOC emissions. The proposed changes will not affect this limit.

Non-Attainment Area New Source Review (NAA NSR) is not applicable to GATX – Waycross since Ware County is an attainment area for all criteria pollutants.

Since Ware County is not one of the counties listed in GA Rules (tt) and (yy), the facility is not subject to any reasonably available control technology (RACT) requirements.

## 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 <sub>10</sub>	✓			✓
PM <sub>2.5</sub>	✓			✓
SO <sub>2</sub>	✓			✓
VOC	✓	✓		
NO <sub>x</sub>	✓			✓
CO	✓			✓
TRS	✓			✓
H <sub>2</sub> S	✓			✓
Individual HAP	✓	✓		
Total HAPs	✓	✓		

**II. Proposed Modification**

## A. Description of Modification

The facility proposes to replace two of its current flares [Air Pollution Control Device (APCD) ID Nos. C17 and C28] with two new flares. Additionally, the facility proposes to remove Boiler B003 and three internal combustion engines (APCD ID Nos. C19, C24, and C25).

## B. Emissions Change

Emissions changes presented in the table below are as provided in *Georgia SIP Air Permit Application Form 1.0 General Information*. Detailed emissions calculations are presented in Appendix A of Application Number 885589.

**Table 3: Emissions Change Due to Modification**

<b>Pollutant</b>	<b>Is the Pollutant Emitted?</b>	<b>Net Actual Emissions Increase<sup>1</sup> (Decrease) (tpy)</b>	<b>Net Potential Emissions Increase (Decrease) (tpy)</b>
PM	N	-	
PM <sub>10</sub>	Y	-	+0.2
PM <sub>2.5</sub>	Y	-	+0.2
SO <sub>2</sub>	Y	-	+0.01
VOC <sup>2</sup>	Y	-	-
NO <sub>x</sub>	Y	-	+3.64
CO	Y	-	+2.03
TRS	N	-	-
H <sub>2</sub> S	N	-	-
Individual HAP (Toluene)	Y	-	+3.67
Total HAPs	Y	-	+9.84

<sup>1</sup>Application Number 885589 does not provide actual emissions increases.

<sup>2</sup>The facility has an enforceable limit of 112 tons for facility wide VOC emissions which will remain unchanged by the proposed modifications.

### C. PSD/NSR Applicability

As discussed above in this document, the facility operates under a facility wide PSD minor limit of 112 tons per year for VOC emissions. According to Application Number 885589, the proposed modifications will not result in a change in the facility wide VOC emissions limit. In addition, the emission estimates as provided in Application Number 885589 indicate that applicable emissions increases associated with the proposed modifications will not increase applicable emissions above applicable significance levels. Therefore, this permit modification is not subject to PSD.

## III. Facility Wide Requirements

### A. Emission and Operating Caps:

The proposed modifications will not add, remove, or modify any facility wide emission and operating caps.

### B. Applicable Rules and Regulations

Rules and Regulations Assessment – The proposed modifications will not add, remove, or modify any applicable facility wide rules and regulations.

Emission and Operating Standards – The proposed modifications will not add, remove, or modify any applicable facility wide emission and operating standards.

C. Compliance Status

Application Number 885589 does not address facility wide compliance status.

D. Permit Conditions

No permit conditions were added, removed, or modified in Section 2.0 of the Title V Permit as a result of the proposed permit modifications.

**IV. Regulated Equipment Requirements**

A. Brief Process Description

GATX – Waycross (GATX) proposes the following modifications to its existing permit:

- To replace its current flares (APCD ID Nos. C17 and C28) with two new flares that will have an overall destruction efficiency of 98% each (and retain the APCD ID Nos. C17 and C28).
- To remove the internal combustion engines (APCD ID Nos. C19, C24, and C25) that control emissions from the Flammable Commodities Purge System (EU ID No. 0019). The emissions from EU ID No. 0019 will be controlled by the new flares (APCD ID Nos. C17 and C28). As the new flare destruction efficiency of 98% will be lower than the emission reduction efficiency of 99% allowed by Permit Condition 3.5.9 of the permit for the internal combustion engines, this change in controls for EU ID No. 0019 will result in an increase in emissions, and GATX has conducted a toxic impact analysis which is discussed later in this document.
- To request an enforceable permit condition to preclude the cleaning and purging of railcars containing benzene, butadiene, vinyl chloride, or mixtures thereof in Tank Car Cleaning (ID No. 0016), Pressurized Flammable Gas Purge System (ID No. 0017), and Flammable Commodities Purge System (ID No. 0019). The Interior Painting/Lining Operation (EU ID No. 0013) and Exterior Painting Operation (EU ID No. 0009) will still be sources of benzene emissions as the coatings used in these operations contain trace amounts of it.
- To request an enforceable permit condition to preclude the cleaning of railcars containing formaldehyde in Tank Car Cleaning (ID No. 0016).
- Originally, the facility requested a formaldehyde emission limit of 0.16 tons per year on a rolling 12-month basis for the Exterior Painting Operation and 0.16 tons per year on a rolling 12-month basis for the Interior Painting/Lining Operation and as such, the painting operations formaldehyde emissions would have been limited to 0.32 tons per year on a rolling 12-month basis. However, due to an updated toxic impact analysis submitted on February 24, 2025, the facility has updated the formaldehyde emissions limit request for the Interior Painting/Lining Operation as 0.27 tons and the Exterior Painting Operation as 0.01 tons, and 0.28 tons combined.
- To remove permit conditions pertaining to methyl bromide and ammonia as GATX no longer handles any railcars with these commodities.

- Following the update of the toxic impact analysis submitted on February 24, 2025, the facility has requested:
  - To remove a boiler (ID No. B003) from the permit since the facility has not constructed this emission unit and has no plans in the future.
  - To request an enforceable permit condition to preclude the cleaning of railcars containing formaldehyde in Tank Car Cleaning (ID No. 0016).
  - To request an enforceable permit condition to limit the operating hours of each boiler (ID Nos. B001 and B002) to 4,300 hours per year per boiler on a 12-month rolling basis.
- Update Attachment B to reflect off permit changes that have occurred since the issuance of the last permit modification as discussed later in this document.

B. Equipment List for the Process

3.1.1 Modified Emission Units

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
0009	Exterior Painting Operation	40 CFR Part 63 Subpart A 40 CFR Part 63 Subpart M 40 CFR Part 64 391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	C9	Fabric Filters
0013	Interior Painting/Lining Operation	40 CFR Part 63 Subpart A 40 CFR Part 63 Subpart M 391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	C11	Fabric Filters
<del>0016 – Old</del>	<del>Tank Car Cleaning (Old)</del>	<del>Toxic Guideline</del>	<del>C16a old</del> <del>C16b old</del>	<del>Venturi Scrubber</del> <del>Carbon Adsorber</del>
0016 –New	Tank Car Cleaning (New)	Toxic Guideline	C16a-new C16b new C16c C16d	Venturi Scrubber Carbon Adsorber Venturi Scrubber Carbon Adsorber
0017	Pressurized Flammable Gas Purge System	Toxic Guideline	C17 C28	Flare Flare
0019	Flammable Commodities Purge System	<del>40 CFR Part 60 Subpart A</del> <del>40 CFR Part 60 Subpart JJJ</del> 40 CFR Part 63 Subpart A 40 CFR Part 63 Subpart <del>ZZZZ</del> Toxic Guideline	<del>C19</del> C17 C28 <del>C24</del> <del>C25</del>	<del>I.C. Engine</del> Flare Flare I.C. Engine I.C. Engine
0020	Small Parts Painting and Touchup	40 CFR Part 63 Subpart A 40 CFR Part 63 Subpart M 391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	C20	Fabric Filter

SIP CONSTRUCTION PERMIT AND TITLE V SIGNIFICANT MODIFICATION APPLICATION REVIEW

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
0008	Exterior Blasting	40 CFR Part 64 391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	C8	Baghouse
011A and 011B	Interior Blasting	40 CFR Part 64 391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	C11	Baghouse
0022	Interior Blasting	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	C26	Baghouse
0023	Solvent Still		None	N/A
0026	Interior Blasting	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	C26	Baghouse
0027	Interior Blasting	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	C27	Baghouse
0029	Interior Blasting	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	C30	Baghouse
0030	Interior Blasting	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	C30	Baghouse
B001	11.5 MMBtu/hr. natural gas/propane fired boiler	40 CFR 60 Subpart A 40 CFR 60 Subpart Dc 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD 391-3-1-.02(2)(d) 391-3-1-.02(2)(g) <u>Toxic Guideline</u>	n/a	n/a
B002	11.5 MMBtu/hr. natural gas/propane fired boiler	40 CFR 60 Subpart A 40 CFR 60 Subpart Dc 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD 391-3-1-.02(2)(d) 391-3-1-.02(2)(g) <u>Toxic Guideline</u>	n/a	n/a
B003	<del>11.5 MMBtu/hr. natural gas/propane fired boiler</del>	<del>40 CFR 60 Subpart A 40 CFR 60 Subpart Dc 40 CFR 63 Subpart A 40 CFR 63 Subpart DDDDD 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)</del>	<del>n/a</del>	<del>n/a</del>

\* 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.

### C. Equipment & Rule Applicability

#### **Emission and Operating Caps –**

In order to comply with the *Georgia Toxic Guidelines*, existing Permit Condition 3.2.1 limited tank car cleaning operations to one tank car per consecutive 24-hour period for the following commodities: Bromine, Methyl Chlorosilanes, Methyl Dichlorosilanes, Methyl Trichlorosilanes, Trichlorosilanes, Methyl Isocyanate, Methylene Diisocyanate, Nitrosyl Chloride, Benzene, Chloroform, Methyl Bromide, Hydrogen Bromide, and Hydrogen Chloride. Without this limit, emissions from this process would cause exceedances of applicable acceptable ambient concentrations (AACs). As part of the proposed modification, the facility is requesting to modify this permit condition to remove benzene from the permit condition.

In addition, as part of this permit modification, the facility proposes operating limits to prohibit cleaning or purging tank cars containing ammonia, benzene, butadiene, methyl bromide, formaldehyde, or vinyl chloride. The facility also proposes to limit formaldehyde emissions from the Exterior and Interior Painting operations. The facility has also requested to limit the operating hours of the Boilers B001 and B002 (since Boiler B003 will be removed from the permit as part of this permit modification). The proposed permit conditions are necessary for the facility to avoid conducting air dispersion modeling for these toxic air pollutants (TAPs). Without these restrictions, the emissions of these TAPs that facility previously represented would lead to exceedances of the respective AACs.

As the new flare destruction efficiency of 98% will be lower than the emission reduction efficiency of 99% allowed by Permit Condition Number 3.5.9 of the Permit for the internal combustion engines, this changes the controls for EU ID No. 0019. Therefore, the permit condition must be updated to reflect the flare destruction efficiency.

#### **Applicable Rules and Regulations -**

*Part 60, Chapter I, Title 40 of the Code of Federal Regulations (40 CFR 60) - New Source Performance Standards (NSPS) Subpart A – General Provisions*

Except as provided in Subparts B and C of 40 CFR 60, the provisions of this regulation apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility [40 CFR 60.1(a)]. Any new or revised standard of performance promulgated pursuant to Section 111(b) of the Clean Air Act applies to equipment located at the GATX – Waycross site for which the construction or modification is commenced after the date of publication in 40 CFR 60 of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that equipment and/or processes [40 CFR 60.1(b)].

*40 CFR 60 NSPS Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*

This regulation is applicable to boilers for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British Thermal Units per hour) or less, but greater than or equal to 2.9 MW (10 million British Thermal Units per hour) [40 CFR 60.40c(a)]. Existing Boilers B001 and B002 are subject to this regulation. Each boiler has a heat input capacity of  $11.45 \times 10^6$  Btu/hr, and therefore subject to this regulation. The boilers fire natural gas for fuel.

Neither particulate matter emission standards nor opacity standards of this regulation apply to the boilers because each has a heat input capacity less than  $30 \times 10^6$  Btu/hr. A source that combusts oil, cannot emit SO<sub>2</sub> in amounts exceeding 0.50 pounds per million British Thermal Units heat input from oil; or, as an alternative, boilers cannot combust oil that contains greater than 0.5 weight percent sulfur [40 CFR 60.42c(d)]. The facility has an existing limitation that limits the type of gas fired in the boilers to natural gas only.

Except as provided in 40 CFR 60.48c(g)(2) and (g)(3), the facility must record and maintain records of the amount of each fuel combusted during each operating day. Since the facility will only fire natural gas in the boilers, it may elect to record and maintain records of the amount of fuel combusted in each boiler during each calendar month [40 CFR 60.48c(g)(2)]. The boilers will continue to comply with applicable requirements of this regulation.

*Part 63, Chapter I, Title 40 of the Code of Federal Regulations (40 CFR 63)- National Emissions Standards for Hazardous Air Pollutants (NESHAP) Subpart A – General Provisions*

This regulation contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. GATX – Waycross is a major source of HAPs under this regulation and equipment located at the site are subject to a specified standard under this regulation.

*40 CFR 63 NESHAP Subpart M – Standards for Surface Coating of Miscellaneous Metal Parts and Products*

This regulation establishes national emission standards for hazardous air pollutants (NESHAP) for miscellaneous metal parts and products surface coating facilities. It also establishes requirements to demonstrate initial and continuous compliance with the emission limitations [40 CFR 63.3880]. This regulation applies to the surface coating of any miscellaneous metal parts or products, as described in 40 CFR 63.3881(a)(1), and it includes the subcategories listed in 40 CFR 63.3881(a)(2) through (6), except as provided in 40 CFR 63.3881(c) and that is a major source, is located at a major source, or is part of a major source of emissions of HAP. GATX-Waycross is a major source of HAPs. This regulation continues to be applicable to the existing Exterior Painting Operation the existing Exterior Painting Operation (ID No. 0009) and Interior Painting/Lining Operation (ID No. 0013).

*40 CFR 63 Subpart ZZZZ NESHAP for Stationary Reciprocating Internal Combustion Engines [RICE]*

This regulation is applicable to RICEs that are located at a major source of hazardous air pollutants (HAPs) [40 CFR 63.6585]. The internal combustion engines (APCD ID Nos. C19, C24, and C25) that controlled emissions from the Flammable Commodities Purge System (EU ID No. 0019) were subject to this regulation. However, as part of this permit modification, these engines will be removed. Therefore, this regulation is no longer applicable to the equipment located at this facility.

*40 CFR 63, Subpart DDDDD NESHAP for Industrial, Commercial, Institutional Boilers and Process Heaters*

This regulation is applicable to new, reconstructed, or existing industrial, commercial, and institutional boilers and process heaters located at major sources of HAP [40 CFR 63.7480 and 40 CFR 63.7490(a)]. The regulation is applicable to Boilers B001 and B002 at the facility.

On December 5, 2022, updates to 40 CFR 63 Subpart DDDDD that were published on October 6, 2022 took effect. As a result, revisions were made to 34 different emission limits which it had previously promulgated in 2011 and amended in 2013. Of these 34 emission limits, 28 of the limits are more stringent and six of the limits are less stringent than the previously promulgated emission limits. While the CO emission limits were revised, no changes to CO limits for boilers that demonstrate compliance on a 30-day rolling average basis using a CO continuous emissions monitoring system (CEMS) were promulgated. The emissions standards differ based upon on the subcategories that apply to a boiler under the rule. While most of the revised standards remain unchanged from the 2020 proposed rule amendments, three emission limits have been reduced further: HCl standards for new solid fuel units and new liquid fuel units and the PM standard for existing biomass fluidized bed boilers.

The final rule amendments reaffirmed EPA's stance that the original definitions for new and existing units remain unchanged from the final rule promulgated in 2013. Therefore, per 40 CFR 63.7490(b) through 40 CFR 63.7490(d), a new unit is any unit constructed or reconstructed after June 4, 2010 (the original date of the proposed rule for the Boiler MACT) and an existing unit is any unit that is not new or reconstructed. EPA acknowledges that, by maintaining these 2013 definitions, certain units may require additional control technologies or monitoring equipment to demonstrate compliance with the amended standards. Therefore, EPA finalized a deadline of three years after the effective date of the final rule in the Federal Register to demonstrate compliance with the revised limits. Before this new compliance date, facilities must continue to comply with the previously applicable standards under 40 CFR 63, Subpart DDDDD.

This final rule amendment also documents EPA's response to The D.C. Circuit Court remanding to EPA the use of CO as a surrogate for organic HAP and EPA's decision to establish a 130 parts per million (ppm) CO standard for certain subcategories, providing additional information in support of these determinations. This standard will not change as part of this amendment of this regulation.

As part of this update, EPA also finalized technical corrections to the existing regulation, including:

- A grammatical change to 40 CFR 63.7500(a);
- Removal of the requirement to collect samples during the test period at 1-hour intervals in 40 CFR 63.7521(c)(1)(ii);

- Removal of various references to a future date of a final performance specification for HCl CEMS as PS 18, the performance specification for Gaseous HCl and Procedure 6, QA requirements for Gaseous HCl CEM were promulgated July 7, 2017;
- Clarification that the establishment of a pH operating limit is not required for a PM wet scrubber in 40 CFR 63.7530(b)(4)(iii) [Note that a pH operating limit is still required for wet acid gas scrubbers];
- Clarification that certification requirements only apply to PM CEMS and not to PM continuous parameter monitoring systems (PM CPMS) in 40 CFR 63.7540(a)(9), as no performance specification exists for PM CPMS ;
- Technical correction of the definition of “Other Gas 1 Fuel” in 40 CFR 63.7575 to clarify that the maximum concentration is “40 micrograms per cubic meter of gas” rather than “40 micrograms per cubic meter of mercury”;
- Addition of the definition of “12-month Rolling Average” in 40 CFR 63.7575;
- Technical correction of the definition of “Steam Output” in 40 CFR 63.7575 to refer to “steam headers” instead of “steam heaters”;
- Revision of the alternative PM emission standard for new stoker/sloped grate/others designed to burn kiln-dried biomass fuel in Table 1 to Subpart DDDDD from 4.2E-01 lb/MMBtu to 4.3E-01 lb/MMBtu to correct a rounding error;
- Removed footnote “a” from Item 12b in Table 1 to Subpart DDDDD related to the TSM limit for fuel cell units designed to burn biomass/bio-based solids, therefore only allowing performance testing to be skipped if emissions are below 75% of the limit for two consecutive years;
- Add footnote “a” to Item 1a for the solid fuel HCl limit, Item 14a for the liquid fuel HCl limit, and Item 15b in Table 1 to Subpart DDDDD for the light liquid fuel TSM limit;
- Removed footnote “a” from Items 14b and 16b in Table 2 to Subpart DDDDD related to the Hg limit for units designed to burn liquid fuel and the PM limit for units designed to burn light liquid fuel, therefore only allowing performance testing to be skipped if emissions are below 75% of the limit for two consecutive years;
- Revision of footnote “b” in Table 7 to Subpart DDDDD to state that when multiple performance tests are conducted, the maximum operating load should be selected as the lower of the maximum values established during performance testing; and
- Revision of the equation reference in Table 8 to Subpart DDDDD for boilers that comply with emission limits using fuel analysis

The following table summarizes pollutants with emission limits affected by this regulatory update for applicable subcategories.

<b>Subcategory</b>	<b>Pollutant</b>
New – Solid Fuel	HCl
New – Dry Biomass Stoker/Sloped Grate	TSM*
New – Biomass Fluidized Bed	CO, PM, TSM
New – Biomass Suspension Burner	CO, TSM*
New – Biomass Hybrid Suspension Grate	CO
New – Biomass Dutch Oven/Pile Burner	PM
New – Biomass Fuel Cell	PM
New – Wet Biomass Stoker/Sloped Grate	CO, PM

SIP CONSTRUCTION PERMIT AND TITLE V SIGNIFICANT MODIFICATION APPLICATION REVIEW

Subcategory	Pollutant
New – Liquid Fuel	HCl
New – Heavy Liquid Fuel	PM, TSM
New – Process Gas	PM*
Existing – Solid Fuel	HCl, Hg
Existing – Coal	PM
Existing – Coal Stoker	CO
Existing – Dry Biomass Stoker/Sloped Grate	TSM*
Existing – Wet Biomass Stoker/Sloped Grate	CO, PM, TSM
Existing – Biomass Fluidized Bed	CO, PM, TSM
Existing – Biomass Suspension Burner	PM, TSM*
Existing – Biomass Dutch Oven/Pile Burner	PM
Existing – Liquid Fuel	Hg
Existing – Heavy Liquid Fuel	PM
Existing – Non-continental Liquid Fuel	PM
Existing – Process Gas	PM*

\*Indicates a less stringent limit compared to the previously promulgated emission limits.

The following table summarizes the changes to emission limits for applicable subcategories per the update of this regulation.

Subcategory	Pollutant*	2013 final rule emission limit (lb/MMBtu of heat input or ppm at 3-percent oxygen for CO)	2022 Revised emission limit (lb/MMBtu of heat input or ppm at 3-percent oxygen for CO)
New—Solid	HCl	2.2E-02	2.1E-04
New—Dry Biomass Stoker	TSM	4.0E-03	5.0E-03
New—Biomass Fluidized Bed	CO	230	130
New—Biomass Fluidized Bed	PM (TSM)	9.8E-03 (8.3E-05)	4.1E-03 (8.4E-06)
New—Biomass Suspension Burner	CO	2,400	220
New—Biomass Suspension Burner	TSM	6.5E-03	8.0E-03
New—Biomass Hybrid Suspension Grate	CO	1,100	180
New—Biomass Dutch Oven/Pile Burner	PM	3.2E-03	2.5E-03
New—Biomass Fuel Cell	PM	2.0E-02	1.1E-02
New—Wet Biomass Stoker	CO	620	590
New—Wet Biomass Stoker	PM	0.03	0.013
New—Liquid	HCl	4.4E-04	1.5E-04

<b>Subcategory</b>	<b>Pollutant*</b>	<b>2013 final rule emission limit (lb/MMBtu of heat input or ppm at 3-percent oxygen for CO)</b>	<b>2022 Revised emission limit (lb/MMBtu of heat input or ppm at 3-percent oxygen for CO)</b>
New—Heavy Liquid	PM (TSM)	1.3E-02 (7.5E-05)	1.9E-03 (6.4E-06)
New—Process Gas	PM	6.7E-03	7.3E-03
Existing—Solid	HCl	2.2E-02	2.0E-02
Existing—Solid	Hg	5.7E-06	5.4E-06
Existing—Coal	PM	4.0E-02	3.9E-02
Existing—Coal Stoker	CO	160	150
Existing—Dry Biomass Stoker	TSM	4.0E-03	5.0E-03
Existing—Wet Biomass Stoker	CO	1,500	1,100
Existing—Wet Biomass Stoker	PM (TSM)	3.7E-02 (2.4E-04)	3.4E-02 (2.0E-04)
Existing—Biomass Fluidized Bed	CO	470	210
Existing—Biomass Fluidized Bed	PM (TSM)	1.1E-01 (1.2E-03)	7.4E-03 (6.4E-05)
Existing—Biomass Suspension Burners	PM (TSM)	5.1E-02 (6.5E-03)	4.1E-02 (8.0E-03)
Existing—Biomass Dutch Oven/Pile Burner	PM	2.8E-01	1.8E-01
Existing—Liquid	Hg	2.0E-06	7.3E-07
Existing—Heavy Liquid	PM	6.2E-02	5.9E-02
Existing—Non-Continental Liquid	PM	2.7E-01	2.2E-01
Existing—Process Gas	PM	6.7E-03	7.3E-03

\*Facilities have the option of complying with the heat input-based limits (lb/MMBtu of Heat Input) or the alternative output-based limits (lb/MMBtu of Steam Output or lb/MWh).

According to Application Number 885589, Boilers B001 and B002 are considered new units under the under this regulation since they were constructed after June 4, 2010. Compliance is required upon startup of the boilers.

This regulation does not contain emissions limitations for gas-fired boilers, to which the two boilers at the facility meet the definition. The facility is required to conduct tune-ups of the boilers annually following the procedures in 40 CFR 63.7540(a)(10)(i) through (vi).<sup>1</sup> The first tune-up is to be conducted within 13 months of commencing operation of the new boilers, with each subsequent tune-up conducted no more than 13 months after the previous tune-up.<sup>2</sup> If a boiler is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. New boilers are not subject to the requirements for conducting a one-time energy assessment. According to Application Number 885589, the initial tune-ups were performed in February 2020 and April 2020, respectively, and the most recent tune-ups for both operating boilers were completed March 2024.

The facility is subject to the requirements to submit an Initial Notification within 15 days after actual startup of the boilers and to submit a NOCS within 60 days after completing the initial tune-up. The facility is also required to submit an electronic annual compliance report in USEPA's CEDRI with the date(s) of the most recent boiler tune-ups. A compliance report may be submitted in accordance with the submittal deadline established in the facility's Title V permit for submitting the semiannual compliance report.

*40 CFR Part 64 – Compliance Assurance Monitoring [CAM]*

Except for backup utility units that are exempt under paragraph (b)(2) of 40 CFR 64.2, the requirements of 40 CFR Part 64 apply to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit if the unit satisfies all of the following criteria: (1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), other than an emission limitation or standard that is exempt under paragraph (b)(1) of 40 CFR 64.2; (2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and (3) The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. Where "potential pre-control device emissions" has the same meaning as "potential to emit," as defined in §64.1, except that emission reductions achieved by the applicable control device are not taken into account [40 CFR 64.2(a)].

Requirements of CAM are applicable to PM emissions from Exterior Blasting 0008, Interior Blasting 011A and 011B, and Exterior Painting Operation 0009. The only equipment potentially affected by the proposed modification is Exterior Painting Operation 0009. According to Application Number 885589, none of the proposed modifications will affect the applicability of CAM to any existing equipment.

*Georgia Rule for Air Quality Control (Georgia Rule) 391-3-1-.02(2)(b) Emission Limitations and Standards Visible Emissions*

This regulation limits opacity to less than forty (40) percent, except as may be provided in other more restrictive or specific rules or subdivisions of Georgia Rule 391-3-1-.02(2). This limitation applies to direct sources of emissions such as stationary structures, equipment, machinery, stacks, flues, pipes, exhausts, vents, tubes, chimneys or similar structures. This regulation is applicable to the existing Exterior Painting Operation the existing Exterior Painting Operation (ID No. 0009) and Interior Painting/Lining Operation (ID No. 0013).

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<sup>1</sup> 40 CFR 63.7540(a)(10), Table 3 to Subpart 5D

<sup>2</sup> 40 CFR 63.7510(g), 40 CFR 63.7515(d)

*Georgia Rule 391-3-1-.02(2)(d) Emission Limitations and Standards Fuel Burning Equipment*

This regulation limits particulate emissions from fuel burning equipment.

For fuel burning equipment in operation or under construction on or before January 1, 1972 with a heat input between 10 million Btu heat input per hour and 250 million Btu heat input per hour, allowable particulate emissions shall be calculated using the following equation:

$$P = 0.5 \times \left(\frac{10}{R}\right)^{0.5}$$

Where:

P = allowable weight of emissions of fly ash and/or other particulate matter in pounds per million Btu heat input

R = heat input of fuel-burning equipment in million Btu per hour.

This particulate emission limit is applicable to the Boilers B001 and B002.

This regulation also limits the opacity of which is equal to or greater than twenty (20) percent except for one six minute period per hour of not more than twenty-seven (27) percent opacity for equipment that has been extensively modified since January 1, 1972. This opacity limit is applicable to the Boilers B001 and B002.

*Georgia Rule 391-3-1-.02(2)(e) – Emission Limitations and Standards – Particulate Emission from Manufacturing Processes*

Equipment as specified in Table 3.1 are subject to Georgia Rule 391-3-1-.02(2)(e)1(i) because it is a source of particulate emissions and will be put into operation or extensively altered after July 2, 1968. Georgia Rule 391-3-1-.02(2)(e)1(i) limits PM emissions based on the following equations:

$E = 4.1P^{0.67}$ ; for process input weight rate up to and including 30 tons per hour.

$E = 55P^{0.11} - 40$ ; for process input weight rate greater than 30 tons per hour.

In the equation, E is the emission rate in pounds per hour and P is the process input weight rate in tons per hour. This regulation is applicable to the existing Exterior Painting Operation the existing Exterior Painting Operation (ID No. 0009) and Interior Painting/Lining Operation (ID No. 0013).

*Georgia Rule 391-3-1-.02(2)(g) – Sulfur Dioxide*

This regulation regulates fuel sulfur content, by weight. All fuel burning sources less than 100 million BTUs of heat input per hour shall not burn fuel containing more than 2.5 percent sulfur, by weight. This regulation is applicable to Boilers B001 and B002.

*Georgia Air Toxics Guidelines Assessment*

According to the State's *Guideline for Ambient Impact Assessment of Toxic Air Pollutant (TAP) Emissions (Revised March 2017)*, existing facilities that require a State Implementation Plan (SIP) permit that are either adding new equipment or modifying existing equipment that results in an increase in the emission of specified toxic air pollutants must demonstrate compliance with the Allowable Ambient Concentration (AAC) for each air toxic. If the facility-wide annual emission rate of a given toxic air pollutant (TAP) is less than the Minimum Emission Rate (MER) no further analysis is required. However, if the facility-wide emission rate exceeds the MER, the facility must show that the resulting maximum ground-level concentration (MGLC) determined by air dispersion analysis does not exceed the ACC of the TAP in question.

According to Application Number 885589, GATX - Waycross's current Title V permit requires Flare C17 to have an overall emission reduction efficiency of at least 99 percent (Permit Condition 3.5.4) while Flare C28 is required to have an overall emission reduction efficiency of at least 98 percent (Permit Condition 3.5.8). Existing Permit Condition 3.5.9 requires the internal combustion (I.C.) engines (ID Nos. C19, C24, and C25) to provide an overall emission reduction efficiency of at least 99 percent. The proposed replacement flares associated with this permit modification will have an overall emission reduction efficiency of 98 percent. Since Engines C19, C24 and C25 will be removed from the facility and the two flares will take the place of the engines, the project will result in an increase in emissions from the facility, and the facility has conducted a toxic impact assessment to demonstrate that the facility's emissions of TAP will not exceed their respective AACs even with the lower emission reduction efficiency of 98 percent.

After review of the initial application, the Division's Planning and Support Program Data and Modeling Unit provided the facility's consultant with specific concerns regarding the facility's plans to conduct SCREEN3 modeling rather than air dispersion modeling. Some of such concerns included but were not limited to the following:

- It is not recommended that the facility exclude building downwash if it is already known there are buildings that can affect dispersion.
- The facility would need to use facility-wide toxics for the SCREEN3 modeling analysis instead of only conducting analysis for affect equipment.
- The facility proposed to include an enforceable permit condition which would prohibit processing of tank cars containing formaldehyde.

The toxic impact analysis (TIA) included in the original Application Number 885589 did not include/address some of these concerns. The facility's consultant has since updated the TIA to address the concerns of the Data and Modeling Unit and submitted the updated applicable documents on February 24, 2025.

The following table includes the MER analysis conducted by the facility as provided in the updated Appendix 5 of Application Number 885589.

HAPs	CAS Number	Facility-Wide Potential Emissions <sup>1</sup>		Minimum Emission Rate <sup>2</sup>	Toxics Modeling Required?
		(tpy)	(lb/yr)	(lb/yr)	
<i>Organic HAPs</i>					
Acetaldehyde	75-07-0	0.0156	31.18	1,107.15	No
Acetonitrile	75-05-8	0.0014	2.73	8,127.89	No
Acrylic Acid	79-10-7	0.0001	0.19	243.33	No
Aniline	62-53-3	0.0000	0.03	243.33	No
Benzene <sup>3</sup>	71-43-2	0.0005	1.05	31.63	No
Butadiene <sup>3</sup>	106-99-0	--	--	7.30	No
Carbon Disulfide	75-15-0	0.0152	30.31	79,650.00	No
Chlorobenzene	108-90-7	0.0000	0.02	40,542.11	No
Cresol	1319-77-3	0.0000	0.00	2,549.38	No
Cumene	98-82-8	0.4233	846.70	97,332.00	No
Dibutyl Phthalate	84-74-2	0.5687	1,137.30	579.17	<b>Yes</b>
Epichlorohydrin	106-89-8	0.0009	1.73	243.33	No
Ethylbenzene	100-41-4	5.5091	11,018.23	243,330.00	No
Ethylene Glycol	107-21-1	0.0000	0.02	20,149.38	No
Formaldehyde	50-00-0	0.2836	567.27	22.10	<b>Yes</b>
Glycol Ethers	N/A	2.9709	5,941.75	N/A	No
Hexamethylene Diisocyanate	822-06-0	0.0002	0.37	2.43	No
Hexane	110-54-3	0.0873	174.53	170,331.00	No
Isooctanes	540-84-1	0.0461	92.28	N/A	No
Maleic Anhydride	108-31-6	0.0000	0.01	115.83	No
Methanol	67-56-1	0.3983	796.69	30,126.73	No
Methylene Chloride	75-09-2	0.0271	54.11	5,182.93	No
Methylene Diphenyl Diisocyanate	101-68-8	0.0000	0.00	146.00	No
Methyl Chloride	74-87-3	0.2218	443.51	21,899.70	No
Methyl Isobutyl Ketone	108-10-1	3.4988	6,997.53	452,825.00	No
Methyl Methacrylate	80-62-6	0.1180	235.90	170,331.00	No
Naphthalene	91-20-3	0.1426	285.28	729.99	No
Phenol	108-95-2	2.1799	4,359.90	2,199.88	<b>Yes</b>
Phthalic Anhydride	85-44-9	0.0000	0.00	695.29	No
Propionaldehyde	123-38-6	0.0000	0.00	1,946.64	No
Propylene Oxide	75-56-9	0.0000	0.00	656.99	No
Styrene	100-42-5	0.9461	1,892.15	243,330.00	No
Toluene	108-88-3	26.6555	53,311.01	1,216,650.00	No
Vinyl Acetate	108-05-4	0.0759	151.88	48,666.00	No

SIP CONSTRUCTION PERMIT AND TITLE V SIGNIFICANT MODIFICATION APPLICATION REVIEW

HAPs	CAS Number	Facility-Wide Potential Emissions <sup>1</sup>		Minimum Emission Rate <sup>2</sup>	Toxics Modeling Required?
		(tpy)	(lb/yr)	(lb/yr)	
Vinyl Chloride <sup>3</sup>	75-01-4	--	--	55.97	No
Xylene	1330-20-7	20.7647	41,529.37	24,333.00	Yes
<i>Metal HAPs</i>					
Antimony Compounds	7440-36-0	1.20E-12	0.00	58.40	No
Arsenic Compounds	7440-38-2	9.70E-06	0.02	0.06	No
Beryllium Compounds	7440-41-7	5.82E-07	0.00	0.97	No
Cadmium Compounds	7440-43-9	5.33E-05	0.11	1.35	No
Chromium Compounds <sup>4</sup>	7440-47-3	2.71E-06	0.01	0.02	No
Cobalt Compounds	7440-48-4	4.07E-06	0.01	11.68	No
Lead Compounds	7439-92-1	1.09E-06	0.00	5.84	No
Manganese Compounds	7439-96-5	1.84E-05	0.04	12.17	No
Mercury Compounds	7439-97-6	1.26E-05	0.03	73.00	No
Nickel Compounds	7440-02-0	1.02E-04	0.20	38.64	No
Selenium Compounds	7782-49-2	1.16E-06	0.00	23.36	No

Notes:

<sup>1</sup> See Appendix 2 of the permit application for additional information on the potential emissions.

<sup>2</sup> Georgia EPD, *Guideline for Ambient Impact Assessment of Toxic Air Pollutant Emissions* (May 2017), Appendix A.

<sup>3</sup> GATX is requesting an enforceable permit condition to preclude the cleaning and purging of railcars containing benzene, butadiene, and vinyl chloride. The Interior and Exterior painting operations will still be sources of benzene as the coatings used contain trace amounts of it.

<sup>4</sup> As part of the 2014 and previous National Air Toxics Assessments (NATA), the US EPA assumes that 4% of total chromium produced from natural gas combustion is in the hexavalent form. As such, GATX has assumed that the 4% of the chromium released from the combustion of natural gas in the boilers are in the form of hexavalent chromium.

Per the revised TIA submitted on February 24, 2025, the TIA for dibutyl phthalate, formaldehyde, phenol, and xylene was conducted using the USEPA’s SCREEN3 modeling software (version 13043), which evaluates the maximum 1-hour average impact. GATX – Waycross prepared a model run for each unit that emits dibutyl phthalate, formaldehyde, phenol, and xylene. Accordingly, the TIA evaluated xylene emissions from the Flammable Commodities Purge System (EU ID No. 0019), Exterior Painting (EU ID No. 0009), Interior Painting/Lining (EU ID No. 0013), and Tankcar Cleaning (EU ID No. 0016), formaldehyde emissions from EU ID Nos. B001, B002, 0009 and 0013, dibutyl phthalate emissions from EU ID Nos. 0009 and 0013, and phenol emissions from EU ID Nos. 0016, 0013, and 0009.

Per Appendix A of the *Guideline*, formaldehyde and xylene have both a short-term (15-minute average) AAC and a long-term (annual average) AAC while dibutyl phthalate has only a 24-hour-average AAC. Phenol has both a short-term (15-minute average) AAC and a 24-hour average AAC. It was assumed that the short-term and long-term modeled emission rates for dibutyl phthalate, formaldehyde, phenol, and xylene were equivalent to the potential emissions per emission unit (lb/hr/unit for short-term and ton/yr/unit for long-term) except for the boilers. The potential emissions in ton/yr/unit were converted to potential hourly emission rates assuming 8,760 hours of operation. For the boilers (EU IDs. B001 and B002), the long-term emission rate was developed assuming each boiler operates for the maximum requested number of hours per year (4,300 hrs/year). Because the stacks for the two boilers are right next to each other, the TIA has aggregated the two into a single stack.

The potential emission rate was then converted from units of lb/hr to g/s. SCREEN3 was modeled for each pollutant at 1 g/s, and then the modeled facility-wide maximum 1-hour impact per TAP was scaled based on that TAP’s potential emission rate as follows:

In accordance with the *Guideline*, the 1-hour modeled impact (summed for all sources of the affected TAP) was converted to a 15-minute impact by multiplying by a factor of 1.32, converted to a daily impact by multiplying by a factor of 0.4, and converted to an annual impact by multiplying by a factor of 0.08.

The following tables from the updated Appendix 5 summarize the input parameters.

**Source Parameters**

***Flare Sources***

Source Type	Permit ID	Stack Height <sup>1</sup> (ft)	Volume of LPG Combusted <sup>2</sup>			Dimensions of Nearest Building (ft)			Min. Distance to Property line (ft)	Max. 1-hr Modeled Impact <sup>3</sup> (µg/m <sup>3</sup> )
			(gal/yr)	(BTU/yr)	(cal/s)	Height	Min. Hori. Dim	Max. Horiz. Dim.		
Flammable Commodities Purge System	0019	40	35,529	11,949,791	95	20	120	720	260	1,688

Notes:

<sup>1</sup> Stack height based on manufacturer specification.

<sup>2</sup> A heat of combustion of 2,516 BTU/ft<sup>3</sup> was used for LPG.

<sup>3</sup> SCREEN3 model results for one flare using an emission rate of 1 g/s.

**Point Sources**

Source Type	Permit ID	Stack Diameter <sup>1,3</sup> (ft)	Stack Height <sup>1</sup> (ft)	Stack Gas Exit Temperature <sup>1</sup> (°F)	Stack Exit Velocity <sup>1</sup> (ft/s)	Dimensions of Nearest Building (ft)			Min. Distance to Property line (ft)	Max. 1-hr Modeled Impact <sup>2</sup> (µg/m <sup>3</sup> )
						Height	Min. Hori. Dim.	Max. Horiz. Dim.		
Boilers	B001 B002	134.5	40	261	0.003	20	90	250	288	1,408
Exterior Painting	0009	2.5	36	78	59	20	120	720	460	100.7
Interior Painting/Lining	0013	4.5	32	100	31	20	120	720	400	143.5
Tankcar Cleaning	0016	33	4	90	0.003	20	120	720	285	6,620

Notes:

<sup>1</sup> Stack parameters obtained from information submitted to U.S. EPA's Combined Air Emissions Reporting System (CAERS).

<sup>2</sup> SCREEN3 model results for one flare using an emission rate of 1 g/s.

<sup>3</sup> The Tank Cleaning has a horizontal stack and the Boilers each have a vertical stack with rain caps while the rest have uncapped vertical stacks. As such, an adjusted stack diameter has been calculated based on guidance provided in the "Georgia Guideline for Ambient Impact Assessment of TAPs." The adjusted diameter has been calculated using the following equation:

$$ds = 31.6 \times d \times \sqrt{V}, \text{ where } d = 0.9144 \text{ m and } V = 0.12 \text{ m/s for the Tankcar Cleaning and } d = 0.469 \text{ m and } V = 7.65048 \text{ m/s for the Boilers.}$$

**TAP Emissions and Modeled Impacts**

Source Type	Permit ID	HAPs <sup>1</sup>	Short-Term Emission Rate <sup>3</sup>		Long-Term Emission Rate		Max. 1-hr Impact (µg/m <sup>3</sup> )	
			(lb/hr)	(g/s)	(lb/hr)	(g/s)	Short-Term Averaging Period <sup>5</sup>	Long-Term Averaging Period <sup>6</sup>
Flammable Commodities Purge System	0019	Xylene	0.01	1.28E-03	--	--	2.17	
Boilers	B001 - B002	Formaldehyde	1.69E-03	2.13E-04	8.30E-04	1.05E-04	0.30	0.15
Exterior Painting	0009	Dibutyl Phthalate	0.11	0.01	--	--	1.42	
		Formaldehyde	0.03	4.03E-03	--	--	0.41	
		Phenol	0.27	0.03	--	--	3.46	
		Xylene	0.89	0.11	--	--	11.35	
Interior Painting/Lining	0013	Dibutyl Phthalate	0.02	3.03E-03	--	--	0.44	
		Formaldehyde	0.03	4.03E-03	--	--	0.58	
		Phenol	0.23	0.03	--	--	4.07	
		Xylene	3.87	0.49	--	--	69.99	
	0016	Phenol	8.20E-05	1.03E-05	--	--	0.07	

Source Type	Permit ID	HAPs <sup>1</sup>	Short-Term Emission Rate <sup>3</sup>		Long-Term Emission Rate		Max. 1-hr Impact ( $\mu\text{g}/\text{m}^3$ )	
			(lb/hr)	(g/s)	(lb/hr)	(g/s)	Short-Term Averaging Period <sup>5</sup>	Long-Term Averaging Period <sup>6</sup>
Tankcar Cleaning <sup>2</sup>		Xylene	6.30E-04	7.93E-05	--	--	0.53	

Notes:

<sup>1</sup> With this application, GATX is requesting an emission limit of 0.28 tons per year of formaldehyde on a rolling 12-month basis for the Exterior Painting Operation and the Interior Painting/Lining Operation, combined. As such, the facility-wide formaldehyde emissions will be limited to 0.28 tons per year on a rolling 12-month basis.

<sup>2</sup> GATX is requesting an enforceable permit condition to preclude the cleaning of railcars containing formaldehyde.

<sup>3</sup> Based on the hourly emission rate per emission unit. See Appendix 2 of the permit application.

<sup>4</sup> The annual average emission rate was calculated as follows:

Annual Average Emissions for all Boilers (lb/hr) = Short-Term Formaldehyde Emission Rate (lb/hr) x (4,300 / 8,760) where 4,300 hours per year is the operating limit GATX is requesting for each boiler.

<sup>5</sup> Max. 1-hr Impact - Short-Term Avg. Period ( $\mu\text{g}/\text{m}^3$ ) = Max. 1-hr Modeled Impact at 1 g/s ( $\mu\text{g}/\text{m}^3$ ) x Short-Term Emission Rate (g/s)

<sup>6</sup> Max. 1-hr Impact - Long-Term Avg. Period ( $\mu\text{g}/\text{m}^3$ ) = Max. 1-hr Modeled Impact at 1 g/s ( $\mu\text{g}/\text{m}^3$ ) x Long-Term Emission Rate (g/s)

The following table summarizes the results of the TIA conducted by the facility as included in the updated Appendix 5 of Application Number 88589.

***Comparison of Modeled Impacts to AAC***

Pollutant	CAS No.	Max. 15-min Impact <sup>1</sup> ( $\mu\text{g}/\text{m}^3$ )	15-min AAC <sup>3</sup> ( $\mu\text{g}/\text{m}^3$ )	Exceeds 15-min AAC?	Max. 24-hr Impact <sup>2</sup> ( $\mu\text{g}/\text{m}^3$ )	24-hr AAC <sup>3</sup> ( $\mu\text{g}/\text{m}^3$ )	Exceeds 24-hr AAC?	Max. Annual Impact <sup>4</sup> ( $\mu\text{g}/\text{m}^3$ )	Annual AAC <sup>3</sup> ( $\mu\text{g}/\text{m}^3$ )	Exceeds Annual AAC?
Dibutyl Phthalate	84-74-2	--	--	--	0.74	11.9	No	--	--	--
Formaldehyde	50-00-0	1.69	245	No	--	--	--	0.09	0.0909	No
Phenol	108-95-2	10.03	6,000	No	3.04	45.2	No	--	--	--
Xylene	1330-20-7	110.92	65,500	No	--	--	--	6.72	100	No

Notes:

<sup>1</sup> Modeled 1-hr concentrations are summed together and multiplied by 1.32 to convert to 15-min impact, per Georgia EPD's *Guideline for Ambient Impact Assessment of Toxic Air Pollutant Emissions* (May 2017), Section 5.

<sup>2</sup> Modeled 1-hr concentrations are summed together and multiplied by 0.4 to convert to 24-hr impact, per Georgia EPD's *Guideline for Ambient Impact Assessment of Toxic Air Pollutant Emissions* (May 2017), Section 5.

<sup>3</sup> Georgia EPD, *Guideline for Ambient Impact Assessment of Toxic Air Pollutant Emissions* (May 2017), Appendix A.

<sup>4</sup> Modeled 1-hr concentrations are summed together and multiplied by 0.08 to convert to annual impact, per Georgia EPD's *Guideline for Ambient Impact Assessment of Toxic Air Pollutant Emissions* (May 2017), Section 5.

According to the updated TIA, the analysis demonstrates that the dibutyl phthalate, formaldehyde, and xylene impacts from the facility will be less than the AACs. Detailed calculations and the SCREEN3 model files supporting this TIA are provided in Section 5 of the updated February 2025 narrative associated with Application Number 885589 and updated February 2025 Appendix 5 of Application Number 885589. Therefore, the facility did not conduct air dispersion modeling.

#### D. Permit Conditions

Permit Condition 3.1.1 is the modified emissions units table based on the proposed equipment changes associated with this permit modification.

A toxic impact assessment was performed on the railcar cleaning operations in October 1996 which included an expansion of the railcar cleaning operations. A Screen 3 model was run and based on 24 hours of emissions for all commodities except those listed in Existing Permit Condition No. 3.2.1 which were modeled on 1 hour of operation per day as requested by the facility since the time to clean one railcar of these commodities is 1 hour. As part of this permit modification, Permit Condition 3.2.1 was modified to remove benzene as a listed commodity based on the updated Screen 3 analysis and associated proposed operational limits.

Permit Condition 3.2.3 limited the boilers B001, B002, and B003 burn natural gas and/or propane only. As part of this permit modification, Boiler B003 will be removed from this condition since the facility has not installed the equipment and has no plans to install it.

To demonstrate that the facility's emissions of ammonia, benzene, butadiene, methyl bromide, formaldehyde, or vinyl chloride will not exceed the applicable AACs, GATX – Waycross proposed an operations limit prohibiting cleaning or purging tank cars containing ammonia, benzene, butadiene, methyl bromide, formaldehyde or vinyl chloride. In addition, the facility proposes to limit formaldehyde emissions from the Exterior and Interior Painting operations. The facility removed these TAPs from the emission calculations for EU IDs 0017 (Pressurized Flammable Gas Purge System) and 0019 (Flammable Commodities Purge System), and a toxic impact assessment for these TAPs is not needed according to Application Number 885589. The facility also requested to remove Boiler B003 from the permit since it has never been installed, and the facility has no plans to install it. Furthermore, the facility requested to limit the operating hours of each of the remaining boilers (B001 and B002). The proposed limits will allow GATX – Waycross to avoid conducting air dispersion modeling for these TAPs. Therefore, Permit Condition 3.2.4 was added to prohibit cleaning or purging tank cars containing ammonia, benzene, butadiene, methyl bromide, formaldehyde or vinyl chloride. Permit Condition 3.2.5 was added to limit formaldehyde emissions to 0.01 tons for the Exterior Painting Operation (ID No. 0009) and 0.27 tons for the Interior Painting/Lining Operation (ID No. 0013) or 0.28 tons combined during any consecutive 12-month period for the Exterior Painting Operation (ID No. 0009) and Interior Painting/Lining Operation (ID No. 0013). Permit Condition 3.2.6 was added to limit the operation of the two remaining boilers to 4,300 hours during any rolling 12-month basis period.

Permit Condition Numbers 3.3.3 through 3.3.5 listed the emission limitations and operating limitations per 40 CFR 63, Subpart ZZZZ applicable to Engine C19. These conditions are being deleted as part of this permit modification since each of the internal combustion engines (APCD ID Nos. C19, C24, and C25) will be removed.

Permit Condition 3.3.6 indicated the applicability to 40 CFR 60, Subpart Dc requirement for the boilers B001, B002, and B003. As part of this permit modification, Boiler B003 will be removed from this condition since the facility has not installed the equipment and has no plans to install it.

Permit Condition 3.3.8 specified 40 CFR 63, Subpart DDDDD work practice requirements for the boilers B001, B002, and B003. As part of this permit modification, Boiler B003 will be removed from this condition since the facility has not installed the equipment and has no plans to install it.

Permit Conditions 3.4.3 and 3.4.4 specified the Georgia Rule (d) requirements for the boilers B001, B002, and B003. As part of this permit modification, Boiler B003 will be removed from these conditions since the facility has not installed the equipment and has no plans to install it.

Permit Condition Number 3.5.2 required that the tankcar cleaning system's (ID Nos. 0016-old and 0016-new) scrubbers (ID Nos. C16a-old and C16a-new) and carbon adsorbers (ID Nos. C16b-old and C16b-new) achieve an overall emission reduction efficiency of at least 98 percent. As part of this modification, the facility requests to remove the old tankcar cleaning unit along with the associated old control devices as these have been removed. The "new" tankcar cleaning (APCD ID 0016) and associated control devices (C16a, C16b, C16c, and C16d) remain in operation. Therefore, this permit condition is being modified to remove references to the old tankcar cleaning unit and the associated old control devices since the equipment has been removed.

Permit Condition 3.5.3 required that the tankcar cleaning systems (ID Nos. 0016-old and 0016-new) achieve an overall emission reduction efficiency of at least 98 percent for chlorofluorocarbons (CFC) vented to the system. This permit condition is being modified to remove references to the old tankcar cleaning unit since the equipment has been removed.

Permit Condition 3.5.4 required that the flare (ID No. C17) to the organic commodity pressurized tank car gas purge system (ID No. 0017) provides an overall emission reduction efficiency of at least 99 percent. As part of this permit modification, the facility proposes to remove the internal combustion engines (APCD ID Nos. C19, C24, and C25) that control emissions from the Flammable Commodities Purge System (EU ID No. 0019). The emissions from EU ID No. 0019 will be controlled by the new flares (APCD ID Nos. C17 and C28). The new flare destruction efficiency is 98%, which will be lower than the emission reduction efficiency of the engines which is 99%. Therefore, this condition will be modified to add the flammable commodities purge system (ID No. 0019, Flare C28), and change the overall emission reduction efficiency of at least 99 percent to 98 percent to reflect the proposed equipment modifications.

Permit Condition Number 3.5.5, 3.5.6, and 3.5.7 were to assure that no methyl bromide exceeded maximum allowable concentrations per the toxic guidelines. Permit Condition Number 3.5.5 required that all tank cars containing methyl bromide are flared for at least a 3-hour period, and Permit Condition Number 3.5.6 required that no more than 2,125 pounds of methyl bromide be flared during any 2-consecutive hour period. Permit Condition Number 3.5.7 required that the flare (ID No. C17) to the organic commodity pressurized tank car gas purge system (ID No. 0017) achieves an overall emission reduction efficiency of at least 99.5 percent when flaring ammonia. As part of this permit modification, the facility requests to remove permit conditions pertaining to methyl bromide and ammonia as GATX - Waycross no longer handles any railcars with these commodities. Therefore, Permit Condition Numbers 3.5.5, 3.5.6, and 3.5.7 were deleted as part of this permit modification.

Permit Condition Number 3.5.8 required the facility to operate and maintain the organic commodity pressurized tank car gas purge system (ID No. 0017) such that its flare (ID No. C28) is operating and provide an overall emission reduction efficiency of at least 98 percent. As discussed above, the replacement Flare C28 requirements are now addressed by Permit Condition 3.5.4. Therefore, Permit Condition Number 3.5.8 was deleted as part of this permit modification.

Permit Condition Number 3.5.9 required the operation and maintenance of the Flammable Commodities Purge System (ID No. 0019) such that I.C. Engines (ID Nos. C19, C24, and C25) provides an overall emission reduction efficiency of at least 99 percent. As part of this permit modification, Engines C19, C24 and C25 are being removed. Therefore, Permit Condition Number 3.5.9 will be deleted as part of this permit modification.

Permit Condition 3.5.11 required that the tankcar cleaning systems' (ID Nos. 0016-old and 0016-new) scrubber and carbon adsorbers (ID Nos. C16c and C16d) achieve an overall emission reduction efficiency of at least 98 percent. As part of this permit modification, the facility requests removal of references to the old tankcar cleaning system and associated control devices (EU ID 0016-old and APCD IDs C16a-old and C16b-old). In addition, the facility requests to add APCD IDs C16a and C16b so that the condition states "...such that the scrubber and carbon adsorber (ID Nos. C16a/C16c and C16b/C16d, respectively)..." to reflect the correct operations at the facility. Therefore, Permit Condition 3.5.11 was modified to make the requested modifications.

Permit Condition 3.5.12 requires that process gases vent through a Carbon Adsorption System (CAS) consisting of at least two activated carbon canisters that are connected in series. This permit condition is being modified to remove references to the old tankcar cleaning unit since the equipment has been removed.

## **V. Testing Requirements (with Associated Record Keeping and Reporting)**

Permit Condition 4.1.3.o specified the performance testing methods to demonstrate compliance with formaldehyde emissions per 40 CFR 63, Subpart ZZZZ. This condition is being deleted as part of this permit modification since each of the internal combustion engines (APCD ID Nos. C19, C24, and C25) will be removed.

**VI. Monitoring Requirements (with Associated Record Keeping and Reporting)**

Permit Condition Number 5.2.1 required monitoring the pH range of the Venturi scrubbers (ID Nos. C16a-old, C16a-new, and C16c) to ensure the proper control efficiency. This permit condition is being modified to remove references to the old tankcar cleaning unit and the associated old control devices since the equipment has been removed.

Permit Condition Number 5.2.2 required carbon adsorbers (ID Nos. C16b-old, C16b-new, and C16d) monitoring for VOC breakthrough to ensure the proper level of control efficiency. This permit condition is being modified to remove references to the old tankcar cleaning unit and the associated old control devices since the equipment has been removed.

Permit Condition Number 5.2.7 required check to ensure the proper operation of the IC Engines C19, C24, and C25 when a railcar is sent to the Flammable Commodities Purge System. This permit condition was deleted since Engines C19, C24, and C25 are being removed as part of this permit modification.

Permit Condition 5.2.13 specified the 40 CFR 63, Subpart DDDDD monitoring requirements for the boilers B001, B002, and B003. As part of this permit modification, Boiler B003 will be removed from this condition since the facility has not installed the equipment and has no plans to install it.

In an email dated March 20, 2025 from Mr. Jae Pyo, Environmental Consultant of *Ramboll*, the facility boilers use a Miura Online Maintenance (MOM) system which tracks and maintains boiler operational hours, specifically addressing calibration and hour meter accuracy. The MOM system utilizes an internal electronic counter within the boiler's Central Processing Unit (CPU) to record the cumulative hours of operation in both low-fire and high-fire modes. This counter is directly linked to the boiler's operational signals, ensuring precise tracking of when each firing mode is active. The recorded operational hours are stored persistently within the boiler's CPU, minimizing the risk of data loss. In the event of a CPU failure, the facility has established procedures to retrieve and transfer historical data from backups, ensuring continuity of records. According to the March 20, 2025 email, the MOM has the ability to generate monthly reports that provide a clear and auditable record of boiler operational hours. These reports allow for comparative analysis of operational trends, facilitating verification of operational history. The Division will require the facility to use the MOM systems on each of the boilers to determine the operating hours of the boilers. Permit Condition 5.2.17 was added to the permit as part of this modification to require the facility to use the existing electronic monitoring systems on each of the Boilers B001 and B002 to monitor operating hours.

**VII. Other Record Keeping and Reporting Requirements**

Permit Condition 6.1.7.b.iv required reporting as an exceedance any instance in which a tank car containing methyl bromide is not flared (ID No. C17) for at least a 3-hour period. As part of this permit modification, the facility requests to remove permit conditions pertaining to methyl bromide and ammonia as GATX - Waycross no longer handles any railcars with these commodities. Therefore, this permit condition has been deleted as part of this permit modification.

Permit Condition 6.1.7.b.v required reporting as an exceedance any instance in which more than 2,125 pounds of methyl bromide is flared (ID No. C17) during any 2-consecutive hour period. As part of this permit modification, the facility requests to remove permit conditions pertaining to methyl bromide and ammonia as GATX - Waycross no longer handles any railcars with these commodities. Therefore, this permit condition has been deleted as part of this permit modification.

Permit Condition 6.1.7.b.viii was added as part of this permit modification to require reporting as an exceedance any time the facility cleans or purges tank cars containing ammonia, benzene, butadiene, methyl bromide, formaldehyde or vinyl chloride.

Permit Condition 6.1.7.b.ix was added as part of this permit modification to require reporting as an exceedance any formaldehyde emissions in amounts equal to or exceeding 0.01 tons from the Exterior Painting Operation (ID No. 0009) and 0.27 tons from the Interior Painting/Lining Operation (ID No. 0013) or 0.28 tons combined during any consecutive 12-month period from the Exterior Painting Operation (ID No. 0009) and Interior Painting/Lining Operation (ID No. 0013).

Permit Condition 6.1.7.b.x was added as part of this permit modification to require reporting as an exceedance any time either Boiler B001 or Boiler B002 operates in an amount equal to or exceeding 4,300 hours during any 12-month rolling total period.

Permit Condition Number 6.1.7.c.ii. required reporting as an excursion any instance in which a railcar is vented to the Venturi scrubber (ID Nos. C16a-old, C16a-new, and/or C16c) with a scrubbant pH less than 7 as recorded per Condition No. 5.2.1. This permit condition is being modified to remove references to the old tankcar cleaning unit and the associated old control devices since the equipment has been removed.

Permit Condition Number 6.1.7.c.iii. required reporting as an excursion any instance in which carbon adsorbers (ID Nos. C16b-old, C16b-new, and/or C16d) is not changed within 24 hours of indication of VOC breakthrough as determined by Condition 5.2.3. This permit condition is being modified to remove references to the old tankcar cleaning unit and the associated old control devices since the equipment has been removed.

Permit Condition Number 6.1.7.c.vi. required reporting as an excursion any instance which does not meet the operating limitations specified in Condition 3.3.5 for Engine C19. This condition will be deleted since Engine C19 will be removed as part of this permit modification.

Permit Condition Number 6.1.7.c.vii. required reporting as an excursion any instance in which a railcar is disconnected from the I.C. Engines (ID Nos. C19, C24, and C25) before the IC Engine shuts off. This condition will be deleted since Engines C19, C24, and C25 will be removed as part of this permit modification.

Permit Condition Number 6.2.4 established the record keeping and reporting requirements related to rail cars cleaning. As part of this permit modification references pertaining to methyl bromide have been removed since GATX - Waycross no longer handles any railcars with these commodities. In addition, this permit condition has been modified to remove references to any permit conditions deleted as part of this permit modification.

Permit Condition Number 6.2.5 establishes the record keeping and reporting requirements for filters C9, C13, C20, C8, C11, C22, C26 and C27. As part of this permit modification, the facility requests to add baghouse C30 for Interior Blasting (EU IDs 0029 and 0030) to the list of baghouses for which a records of filter changes must be maintained. This permit condition is being modified to make the requested changes.

Permit Condition Numbers 6.2.18 and 6.2.19 specified the reporting and record keeping requirements for 40 CFR 63, Subpart ZZZZ. This condition will be deleted since Engines C19, C24, and C25, facility equipment potentially subject to this regulation, will be removed as part of this permit modification.

Permit Condition Numbers 6.2.20 and 6.2.21 specified 40 CFR 60, Subpart Dc reporting and recordkeeping requirements for the boilers B001, B002, and B003. As part of this permit modification, Boiler B003 will be removed from these conditions since the facility has not installed the equipment and has no plans to install it.

Permit Condition Numbers 6.2.22 through 6.2.25 specified 40 CFR 63, Subpart DDDDD reporting and recordkeeping requirements for the boilers B001, B002, and B003. As part of this permit modification, Boiler B003 will be removed from these conditions since the facility has not installed the equipment and has no plans to install it.

Permit Condition Number 6.2.26 specifies the recordkeeping requirement for the Carbon Adsorption System. This permit condition is being modified to remove references to the old tankcar cleaning unit and the associated old control devices since the equipment has been removed.

Permit Condition Numbers 6.2.28 through 6.2.31 are being added to the permit as part of this permit modification to specify the recordkeeping and reporting requirements to demonstrate compliance with the formaldehyde emission limits for the Exterior Painting Operation (ID No. 0009) and Interior Painting/Lining Operation (ID No. 0013) discussed above.

Permit Condition Number 6.2.32 was added as part of this permit modification to require recordkeeping and reporting of the operating hours of Boiler B001 and Boiler B002.

## **VIII. Specific Requirements**

### **A. Operational Flexibility**

No operational flexibility is requested as part of this permit modification.

### **B. Alternative Requirements**

No alternative requirements were added, modified, or removed as a result of this permit modification.

C. Insignificant Activities

The facility has had off permit changes in 2024 and 2025 which resulted in an increase in the number of equipment included in Attachment B (Insignificant Activities Checklist, Insignificant Activities Based on Emission Levels and Generic Emission Groups) of the Title V Permit. Fuel burning equipment with a rated heat input capacity of less than 10 million British Thermal Units per hour (BTU/hr) burning only natural gas and/or liquefied petroleum gas (LPG) *included Generic Emissions Groups* equipment increased from 10 to 21 since the last permit modification. Therefore, the facility wishes to update Attachment B to reflect off permit changes that have occurred since the issuance of the last permit modification.

D. Temporary Sources

No temporary sources were added, modified, or removed as a result of this permit modification.

E. Short-Term Activities

No short-term were added, modified, or removed as a result of this permit modification.

F. Compliance Schedule/Progress Reports

No compliance schedule/progress reports were added, modified, or removed as a result of this permit modification.

G. Emissions Trading

No emissions trading was added, modified, or removed as a result of this permit modification.

H. Acid Rain Requirements/CAIR/CSPAR

This permit modification does not change the applicability of Acid Rain Requirements/CAIR/CSAR to this facility.

I. Prevention of Accidental Releases

No prevention of accidental releases was added, modified, or removed as a result of this permit modification.

J. Stratospheric Ozone Protection Requirements

This permit modification does not change the applicability of Stratospheric Ozone Protection Requirements to this facility.

K. Pollution Prevention

No prevention of pollution prevention was added, modified, or removed as a result of this permit modification.

L. Specific Conditions

No prevention of specific conditions were added, modified, or removed as a result of this permit modification.

**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.//