Facility Name: **Pinova, Inc.**
City: Brunswick
County: Glynn
AIRS #: 04-13-127-00002

Application #: TV-459392
Date Application Received: May 19, 2020
Permit No: 2861-127-0002-V-07-0

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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: Pinova, Inc.

2. Parent/Holding Company Name: DRT America, Inc.

3. Previous and/or Other Name(s)

Hercules Incorporated - Brunswick
Opco-P, Inc.

4. Facility Location: 2801 Cook Street, Brunswick, Georgia 31520 (Glynn 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
2861-127-0002-V-06-0	August 4, 2017	Ownership Change from Pinova Holdings to DRT America, Inc.
2861-127-0002-V-06-1	October 24, 2018	Modifications to the No. 10 Boiler, per Consent Order EPD-AQC-6886.
Off-Permit Change	March 2019	Installation of 1.25 MMBtu/hr natural gas boiler and distillation column.
Off-Permit Change	October 2020	Installation of two sub-slab depressurization (SSD) systems for vapor intrusion mitigation.

D. Process Description

1. SIC Codes(s)

2861 – Gum and Wood Chemicals

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)

Pinova in Brunswick, GA operates a chemical production facility consisting of the following processes: hard resins, terpene resins, terpene liquids, modified rosins/resins, unmodified rosins/resins, and specialty chemicals.

3. Overall Facility Process Description

Milling
Pinova receives tree stumps by truck. The stumps are processed in the Milling Area by grinding or shredding and conveyed to a silo. From the silo, wood is conveyed to the Extraction unit. Currently, this area of the plant has no air pollution control equipment, and no HAPs are present in the stump handling and milling process.

Primary Area (Extraction, Refinery, and Pexite)
The extractor is fed from the Milling silo via the crown gallery belt and the inlet feed diventilator. The diventilator discharges into the wood inlet hopper through a rotary valve into the extractor. In the extractor, methyl isobutyl ketone (MIBK) is used to extract the rosin from the milled wood. Vinsol can also be processed in the Extractor via a belt system immediately downstream of the feed silo. Spent wood from the Extractor is conveyed to the desolventizer to remove and recover the MIBK and ultimately be burned in No. 9 Boiler. The crude rosin solution is pumped to a surge tank and is subsequently sent to the refinery for separation of MIBK, crude wood oils, and other impurities. After the refinery, rosin is further processed in the Pexite area using solvents to separate/split the rosin based on polarity.

Hard Resins
Hard Resins are produced by the batch reaction of rosin/resin feedstock with a polyhydric alcohol (such as glycerol) and/or with other modifiers including polybasic organic acids (such as fumaric acid). Products can be simple esters, adducted esters, complex esters, resonates and blends.

Terpene Resins
Terpene Resins are produced by the acid-catalyzed polymerization of feedstocks, including liquid terpenes (such as Sulfate Alpha-pinene) and styrene, to produce polyterpene resins. The reaction is carried out in a diluent using continuous stirred tank reactors. The reaction mixture is water washed, dechlorinated, filtered and evaporated to produce the finished product resin.

Terpene Liquids (Stillhouse)
Terpene liquid products are manufactured by the fractional distillation of feedstocks including Terpene oils extracted from pine wood chips, crude sulfate turpentine, synthetic terpenes, citrus limonene and others. Both continuous and batch distillations are used. Products can be specific distillation fractions or blends of distillation cuts.

Modified Rosins/Resins (Staybelite/Foral)
Resins are modified through the saponification, hydrogenation/dehydrogenation or polymerization of the substance.

Unmodified Rosins/Resins
Resins/Rosins are obtained during the solvent refining or distillation stages of raw materials or products.

Specialty Chemicals Plant (SCP)
Additional products are formed by the esterification or other reaction of raw materials and products. These include synthetic resins, vulcanization agents, synthetic wax and ester gum.

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 considered a major source under PSD/NSR regulations and is categorized as belonging to one of the 28 named source categories subject to a 100 tpy emissions threshold for classification as a major source due to fossil fuel boilers (or combinations thereof) totaling more than 250 million BTU/hr heat input. The facility has taken the following limits for the purpose of avoiding PSD/NSR review.

   Extraction/Refinery
   The process production weight of pale wood rosin is limited to a maximum of 12.5 million pounds per month to all extractors in Source Groups EBG1 and EXG2.

   Staybelite/Foral Area
   VOC and hydrogen sulfide emissions are limited to amounts less than 40 tons and 10 tons, respectively, during any consecutive twelve-month period from the Staybelite & Foral Resin Reactors (Source Code SAG1)

   Liquid Resins/Specialty Chemical Processing (SCP)
   VOC emissions are limited to amounts less than 40 tons during any consecutive twelve-month period from the Liquid Resins Stills & Towers (Source Code LRG1).

Power Plant Operations

The No. 10 Boiler (Source Code P010) is limited to firing 1,763 million cubic feet of natural gas per any consecutive twelve-month period. Boiler No. 10 is also limited to CO and NO_X emissions less than 0.170 lb/MMBtu heat input and 0.046 lb/MMBtu heat input, respectively, when firing natural gas.

The No. 9 and No. 10 Boilers (Source Codes P009 & P010) are limited to a combined steam production level of less than 1,160,739 tons per any twelve consecutive months.

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	✓			✓
H_2S	✓			✓
Individual HAP	✓	✓		
Total HAPs	✓	✓		

3. MACT Standards

The facility is subject to 40 CFR 63 Subpart FFFF – *"National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing"* (MON).

The facility operates engines that are subject to 40 CFR 63 Subpart ZZZZ – *"National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines."*

The No. 9 and No, 10 Boilers are subject to 40 CFR 63 Subpart DDDDD – *"National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters."*

4. Program Applicability (AIRS Program Codes)

Program Code	Applicable (y/n)
Program Code 6 - PSD	No
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

None applicable,

III. Regulated Equipment Requirements

A. Equipment List for the Process

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices		Stack ID
ID No.	Description		ID No.	Description	
PRIMARY PROCESSING					
PFG1	Sawdust Handling	391-3-1-.02(2)(n)	None	None	None
MG01	Millroom Operations (M001-8, MF02-7)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	None	None	None
CT01 CT02	Cooling Tower	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart FFFF	None	None	None
EXTRACTION/REFINERY					
EBG1	Old Extractor Group[1] (EB01, EB04)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 52.21 40 CFR 63 Subpart FFFF	EBC1 EBC4	Oil Scrubber Old Extractor Spray Tower #1 Old Extractor Vent System	EBS1
EXG1	Crown Extractor[1] Desolventizer Pre-Evaporator System	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart FFFF	EAC1 EAC3	Crown Oil Scrubber Crown Area Spray Tower	EAS1
EAG1	Spent Wood Conveyors Spent Wood Diventillator	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart FFFF	EAC1 EAC2	Crown Oil Scrubber Crown Area Spray Tower	EAS1
PEXITE PLANT					
PXG1	Resin Refining[2] (PX01-PX04)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart FFFF	PXC0 PXC1 PXC2	Pexite Water Spray Tower Pexite Plant Packed Tower Scrubber Pexite Plant PS2 Condenser	 PXS1 PXS2

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices		Stack ID
ID No.	Description		ID No.	Description	
VINSOL AREA					
VG01	Vinsol Bagging	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 64	VC01- VC04	Dust Collectors (4)	VS01 VS02 VS03 VS04
VF04	Vinsol Group (V007, V008, VF01-VF03)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	None	None	VS07 VS08
CHEMICAL PLANT					
CPG1	Chemical Plant Reactors RP-1 through RP-3	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	None	None	CPS4
DISTILLATION					
SHG1	Still House Batch Stills (17, 25, 27, 29, & 31) Continuous Distillation Columns[2]	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart FFFF	SC40	Condenser	SS40
S021	Continuous Still No. 21[2]	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart FFFF	SC40	Condenser	SS40
STAYBELITE/FORAL AREA					
SAG1	Staybelite Reactors SA03 (4) Foral Resin Reactors SA03 (4)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 52.21	SAC3	Packed Tower Scrubber	SAS3 SAS5 SAS3
SA04	Staybelite Still	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	SAC4	Primary Condenser	SAS4
SA05	Staybelite Thermal Transfer Fluid System (2 – 2 MMBTU/hr boilers)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	SAC5	Condenser	SAS5
HARD RESINS AREA					
HRG1	Hard Resins Kettles A-F[1]	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart FFFF 40 CFR 60 Subpart VV	HRTO	Regenerative Thermal Oxidizer	HRTO
HRG2	Hard Resins Hoppers & Bagging	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	HRC7 HRC8 HRC9	Baghouse Baghouse Baghouse	HRS7 HRS8 HRS9
HRG3	Hard Resins Belt Molten Feed	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	HRVS	Venturi Scrubber	HRS3
HR01	Hard Resin Dowtherm Boiler	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	None	None	HRS1
TERPINE RESINS					
TR02	Terpene Resins Reactors R-5 & R-6[2]	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart FFFF	TRC2	Wash System Condenser	TRS2
TR03	Terpene Resins Dechlorinators R-19A & R-19B[2]	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart FFFF	TRC3	Dechlor Condenser	TRS3
TR04	Terpene Resins Lochem Filter[2]	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart FFFF	TRC4	Condenser E26	TRS4
TR07	Terpene Resins LTC Evaporation System (including Evaporator, Still Column, & Stripper Column)[2]	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart FFFF	TRC7 TRC8	Jet After-Condenser Spare Condenser	TRS7

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices		Stack ID
ID No.	Description		ID No.	Description	
TR08	Terpene Resins Hot Oil Heater	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	None	None	TRS8
LIQUID RESINS/SPECIALTY CHEMICAL PROCESSING (SCP)					
SP01	SPC Ester Kettle R-403[2**]	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart FFFF	SPC1	Spray Tower	SPS1
SP06	SCP Resins Dowtherm Boiler	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	None	None	SPS6
LRG1	Liquid Resins Stills & Towers (LR1A-D)[1]	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 52.21 40 CFR 63 Subpart FFFF Georgia Air Toxics (Methanol)	LRC1 LRC2	Venturi Scrubber Packed Tower Scrubber	SPS2
LR02	Liquid Resins Xceltherm Vaporizer	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	None	None	LRS2
TEG2	Storage Tanks (Methanol) (T104 & T130)[1]	40 CFR 63 Subpart FFFF	LRC1 LRC2	Venturi Scrubber Packed Tower Scrubber	LRS2
N/A	Methanol Transfer Operations	40 CFR 63 Subpart FFFF	LRC1 LRC2	Venturi Scrubber Packed Tower Scrubber	LRS2
POWER PLANT OPERATIONS					
P009	No. 9 Boiler – Hybrid Suspension Grate Boiler	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 40 CFR 63 Subpart DDDDD 40 CFR 64	PC9A PC9B	Multiclone Venturi Scrubber	PS09
P010	No. 10 Boiler	391-3-1-.02(2)(d) 391-3-1-.02(2)(g) 40 CFR 60 Subpart Db 40 CFR 63 Subpart DDDDD	None	None	PS10

* 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.
[1]Group 1 status with regard to 40 CFR 63 Subpart FFFF
[2]Group 2 status with regard to 40 CFR 63 Subpart FFFF
[**]Group 2 status only applicable when the reactor is used to produce Vinsol Ester Gum

B. Equipment & Rule Applicability

The equipment listed above is subject to the following rules and regulations:

Federal Regulations

40 CFR 60 Subpart A – General Provisions
Any source subject to a specific NSPS is also subject to the general provisions of NSPS Subpart A. This subpart requires initial notification and performance testing, recordkeeping and monitoring, provides reference methods, provides for certain exceptions, and mandates general control device requirements for other subparts as applicable.

40 CFR 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

This subpart applies to steam generating units with a heat input capacity of greater than 100 MMBtu/hr that began construction, modification, or reconstruction after June 19, 1984.

Pinova utilizes several boilers: Boiler No. 9 (P009), Boiler No. 10 (P010), SCP Resins Dowtherm Boiler (SP06), 2-Staybelite Thermal Transfer Fluid System boilers (SA05), Liquid Resins Xceltherm Vaporizer (LR02) and Hard Resins Dowtherm Boiler (HR01).

SP06, 2-SA05, LR02 and HR01 are below the 100 MMBtu/hr threshold with heat input capacities of 1.7 MMBtu/hr, 2-2 MMBtu/hr, 8.4 MMBtu/hr and 6 MMBtu/hr respectively; therefore, NSPS Subpart Db is not applicable to these units.

P009 has a heat input of 350 MMBtu/hr when firing fuel oil and 307 MMBtu/hr when firing wood chips. P010 has a heat input capacity of 209.2 MMBtu/hr. Both P009 and P010 have heat input capacities above the 100 MMBtu/hr heat input capacity threshold of Subpart Db. However, P009 was constructed, prior to June 19, 1984; therefore, it is not subject to the regulations of Subpart Db. Boiler No. 10 is the only boiler located at the facility subject to this subpart, as it was initially constructed in 1996.

Previously, Pinova voluntarily took an annual capacity restriction for P010 to meet the applicability requirements codified in 40 CFR 60.44b(k). By restricting the annual capacity to 10% of the manufacturer rated capacity, and meeting the 250 MMBtu/hr limit, P010 was exempt from the emissions limitations and testing requirements of 40 CFR 60, Subpart Db. In addition, P010 was exempt from the monitoring requirements of 40 CFR 60, Subpart Db in accordance with 40 CFR 60.48b(i). In January 2018, Pinova submitted a permit application requesting the removal of the permit condition limiting the annual capacity restriction and requesting removal of the ability to fire fuel oil.

Upon issuance of the permit amendment 2861-127-0002-V-06-1 on October 24, 2018 which included the removal of the permit condition referencing the restriction on the annual capacity, P010 no longer meets the requirement of 40 CFR 60.44b(k). Therefore, P010 is subject to emissions limits, monitoring, testing, recordkeeping, and reporting requirements under 40 CFR 60, Subpart Db.

P010 is subject to the Low Heat and High Heat NO_X emission limitations if 0.10 lb/MMBtu and 0.20 lb/MMBtu, respectively, in 40 CFR 60.44b(a). P010 is not subject to emissions limits for SO_2, and PM since the boiler is not permitted to burn liquid fuel.

Pinova demonstrates compliance with the monitoring requirements by calibrating, maintaining, and continuously operating the NO_X CEMS, and recording the output of the systems as described in of 40 CFR 60.48b(b)(1). Compliance cannot be demonstrated with the NO_X emission limitations until rolling 30-day average emission rate is calculated. In 40 CFR 60.46b(e)(1), the rolling 30-day average emission rate is calculated as the average of all hourly emissions data recorded by CEMS during the 30-day test period. Pinova has demonstrated compliance with the NO_X limitation on a 30-day average emission rate.

40 CFR 60 Subpart Kb – Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) Constructed after July 23, 1984

Subpart Kb regulates VOC emissions from storage vessels storing volatile organic liquids (VOL) with storage capacity greater than 75 m^3 (19,812 gallons) that are constructed, reconstructed, or modified after July 23, 1984. For the purposes of Subpart Kb, VOL means any liquid that may emit VOC into the atmosphere.

Pinova has two tanks (T104 and T130) in Source Group TEG2 listed in the current Title V permit as subject to NSPS Subpart Kb. These two storage vessels, T104 and T130, are identical methanol tanks with a design capacity of 12,000 gallons. T104 and T130 were originally subject to NSPS Subpart Kb, however with the revision of 40 CFR 60.110b(a) to exclude vessels with capacities less than 75 m^3 (19,812 gallons), these two (2) vessels are no longer subject to this regulation. Pinova requests that NSPS Subpart Kb requirements be removed from the Title V permit renewal for these two vessels.

40 CFR 60 Subpart VV/VVa – Equipment Leaks for VOC in Synthetic Organic Chemicals Manufacturing Industry

NSPS Subparts VV and VVa apply to synthetic organic chemicals manufacturing industry (SOCMI) affected facilities for which construction, reconstruction, or modification commenced as follows:

- NSPS VV – after January 5, 1981 and on or before November 7, 2006
- NSPS VVa – after November 7, 2006

To trigger NSPS VV/VVa applicability, a facility must produce a chemical listed in 40 CFR §60.489. Pinova uses, as both reactants and solvents, several SOCMI chemicals listed in 40 CFR §60.489 throughout the Brunswick Facility. Additionally, Pinova does reclaim several SOCMI chemicals utilized as both reactants and solvents onsite for reuse. Pinova, however does not produce any SOCMI chemicals listed in 40 CFR §60.489 as intermediates or final products for sale at the Brunswick Facility.

As Pinova reclaims these listed SOCMI chemicals for reuse, the Brunswick Facility contains process units historically listed as subject to NSPS VV. Pinova is also regulated under 40 CFR 63, Subpart FFFF, and has chosen to implement a 40 CFR 63, Subpart UU LDAR Program for all NSPS VV regulated components in lieu of maintaining two separate programs as allowed under 40 CFR 63.2535(k). New requirements promulgated for Subpart FFFF require that, after August 12, 2023, connectors in gas/vapor service subject to NSPS VV/VVa that are currently allowed under Subpart FFFF to be monitored as equipment in heavy liquid service will be required to be monitored as originally prescribed as connectors in gas/vapor service.

40 CFR 60 Subpart NNN – VOC Emissions from SOCMI Distillation Operations

Subpart NNN applies to continuous distillation operations at synthetic organic chemicals manufacturing industry (SOCMI) affected facilities that produce any of the chemicals listed in §60.667 as a product, co-product, by-product, or intermediate at which the facility was constructed, modified, reconstructed after December 30, 1983.

Pinova uses, as both reactants and solvents, several SOCMI chemicals listed in 40 CFR §60.667 throughout the Brunswick Facility. Additionally, Pinova reclaims several SOCMI chemicals utilized as both reactants and solvents onsite for reuse. However, the facility does not produce any SOCMI chemicals listed in 40 CFR §60.667 as intermediates or final products for sale.

It is important to note that several exemptions to Subpart NNN are listed in §60.660(c)(1)-(6). In accordance with US EPA Guidance (US EPA Applicability Determination Control Number NS19), distillation operations recovering §60.667 listed chemicals from process units for the purpose of reuse in the same process unit are excluded from NSPS NNN regulation. As Pinova reclaims listed applicable chemicals for reuse using distillation operations, the Brunswick Facility contains process units potentially subject to NSPS NNN. Table 4-1 in Application No. 459392 provides documentation of NSPS NNN applicability for each distillation operation at the Brunswick Facility. Since these listed processes include several distillation processes that were not previously specified, the conditions related to NSPS NNN avoidance have been revised to encompass any processes from which applicable chemicals are recovered.

To avoiding triggering Subpart NNN, Pinova does not use the recovered solvents from any distillation column in any other process except the process from which it is recovered. Additionally, various distillation operations are designed and operated as a batch process. No distillation operations at the facility are subject to NSPS Subpart NNN.

40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Internal Combustion Ignition Engines

NSPS Subpart IIII establishes criteria pollutant emission standards for manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE). This rule is applicable to operators of any stationary CI ICE with model years of 2007 or later, fire pumps with model years of 2008 or later, or engines that commenced construction, modification, or reconstruction after July 11, 2005. The Brunswick facility currently operates five (5) CI engines, of which only one (1) meets the above criteria for applicability.

Pinova installed a CI engine as Fire Pump #3 with a 2017 model year that is subject to this rule. The maximum rating of the engine is 200 bhp. The engine meets the definition of emergency stationary ICE in 40 CFR 60.4219.

Per 40 CFR 60.4202(a)(2), engines subject to this subpart must meet the requirements of 40 CFR 89.112/113. Additionally, each engine will have to meet the fuel requirements of 40 CFR 80.510(a) and (b), which state that fuel oil combusted in CI ICE must meet the following requirements:

- Maximum sulfur content of 15 ppm; and
- Minimum Centane index of 40 or maximum aromatic content of 35% by volume.

The engine subject to this regulation is certified by its manufacturer to meet these emission standards and will use fuel that meets the required specifications. Additionally, the engine is equipped with a non-resettable hour meter, engine maintenance is conducted as prescribed by the manufacturer, and operation of the engine is limited to 100 hours per year of non-emergency operation (50 hours of which may be non-emergency outside of maintenance and testing). Pinova complies with all regulations for the subject engine.

40 CFR 63 Subpart A – General Provisions

Any source subject to a specific NESHAP is also subject to the general provisions of NESHAP Subpart A. This subpart establishes compliance dates, operation and maintenance standards, compliance, testing, monitoring, notification, recordkeeping and reporting requirements for all other subparts as applicable.

40 CFR 63 Subpart SS – National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing Emissions to a Fuel Gas System

Subpart SS includes requirements for closed vent systems, control devices and routing of air emissions to fuel gas systems or processes. Subpart SS applies when another subpart references the use of this subpart for such air emission control. The Brunswick Facility is regulated under 40 CFR 63 Subpart FFFF (MON) and is required to comply with Subpart SS by reference for closed vent systems controlling Group 1 Continuous and Batch Process Vents, Group 1 Storage Tanks, Surge Control Vessels and Bottoms Receivers and Transfer Racks, and Waste Management Units managing Group 1 Process Wastewaters, as applicable. Please see the discussion regarding Subpart FFFF below.

40 CFR 63 Subpart UU – Standards for Equipment Leaks – Control Level 2 Standards

This subpart includes requirements for the design and ongoing implementation, recordkeeping and reporting requirements for a LDAR program to minimize leakage from equipment components in >5 weight % HAP service including valves, pumps, connectors, compressors, agitators, pressure relief devices, sampling connection systems, open-ended valves or lines, and instrumentation systems. Compliance with Subpart UU is required when referenced by another subpart of Part 63.

As previously stated, the Brunswick Facility is regulated under 40 CFR 63 Subpart FFFF. As such, 40 CFR 63.2480 and Table 6 of Subpart FFFF allows Pinova to choose between implementation of a 40 CFR 65 Subpart F LDAR Program or a 40 CFR 63 Subpart H or Subpart UU LDAR program. Pinova has elected to comply with a 40 CFR 63 Subpart UU LDAR Program as amended by 40 CFR 63.2480.

It is important to note the Brunswick Facility is also regulated under 40 CFR 60 Subpart VV and has chosen to implement a Subpart UU LDAR Program for all NSPS VV regulated components in lieu of maintaining two separate programs as allowed under 40 CFR 63.2535(k).

40 CFR 63 Subpart FFFF – National Emission Standards for Miscellaneous Organic Chemical Manufacturing (MON)

This subpart regulates HAP emissions from continuous process vents, batch process vents, storage vessels, surge control vessels and bottoms receivers, transfer racks, equipment leaks from equipment in organic HAP service, process and maintenance wastewaters, waste management units, liquid streams in open systems, and heat exchange systems.

The Brunswick Facility is regulated as an existing source under Subpart FFFF. Several MON Miscellaneous Organic Chemical Processing Units (MCPUs) have been identified and the facility as a whole historically has identified Group 1 and Group 2 continuous process vents, Group 1 and Group 2 batch process vents, Group 2 process wastewaters, Group 1 and 2 storage tanks and transfer operations. Additionally, the Brunswick Facility complies with 40 CFR 63 Subparts A, SS and UU as referenced and amended by Subpart FFFF.

The Brunswick Facility submitted an initial Notification of Compliance Status (NOCS) documenting detailed applicability determinations as required in 2008. Additionally, updated NOCS sections have been submitted in 2010 and 2014.

This subpart underwent a revision in August 2020. Changes have been incorporated into the current permit renewal. Clarification for the compliance alternative chosen for connectors in gas/vapor and light liquid service is also included in this renewal. Other changes incorporate previously omitted applicable, and potentially applicable, requirements for clarity. An additional cooling tower (CT02) was identified in information submitted as a supplement to Application No. 459392, identifying MON compliance implications to the facility of the revisions to the MON. This cooling tower was added to the emissions units listed in Table 3.1 with previously identified cooling tower CT01.

40 CFR 63 Subpart DDDDD – NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler MACT)

This subpart regulates HAP emissions from solid, liquid and gaseous fuel fired steam generating units which are located at major sources of HAP. Pinova operates five (5) boilers and several process heaters that are subject to the Boiler MACT.

Hard Resin Dowtherm Boiler (HR01) and Liquid Resins Xceltherm Vaporizer (LR02) are existing, natural gas-fired units with a heat capacity greater than 5 MMBtu/hr and less than or equal to 10 MMBtu/hr. Per Table 3 of Subpart DDDDD, each unit is required to conduct a tune-up biennially as specified in 40 CFR 63.7540.

Terpene Resins Hot Oil Heater (TR08) and SCP Resins Dowtherm Boiler (SP06) are existing natural gas-fired units with a heat capacity less than or equal to 5 MMBtu/hr. The Gum Rosin Distillation Dowtherm Boiler (GRD01) was installed in 2019 as part of an "off permit change" submitted to Georgia EPD. As a new natural gas-fired boiler, considered a "gas 1 fuel", there are no emission limits specified in Table 1, 2, 11 or 12. Per Table 3 of Subpart DDDDD, each unit is required to conduct a tune-up every 5 years as specified in 40 CFR 63.7540.

Boiler No. 10 (P010) is a natural gas-fired boiler with a continuous oxygen trim system with a heat capacity greater than 10 MMBtu/hr. Previously, Boiler No. 10 was a natural-gas fired boiler without a continuous oxygen trim system, subject to annual tune-ups. However, in February 2019 a continuous oxygen trim system was installed as part of a combustion control system project. Pinova requested in Application No. 45932 that Georgia EPD update the permit for this change and list the reporting frequency for each process unit in the permit. Per Table 3 of Subpart DDDDD, Boiler No. 10 is now required to conduct a tune-up every 5 years as specified in 40 CFR 63.7540.

Boiler No. 9 (P009) combusts wood waste including wood chips, sawdust and bark (defined as biomass), No. 2 fuel oil, and non-hazardous raw materials, co-product, by-product, or products with significant BTU value and sulfur content below 3%. As such, Boiler No. 9 meets the definition of a Hybrid Suspension Grate (HSG) boiler as defined under 40 CFR 63.7575. Boiler No. 9 has emission limitations for HCI, Hg, Filterable PM, and CO per Table 2 of Subpart DDDDD. Compliance with the emission limits is demonstrated through performance testing and operation of continuous monitoring systems (CMS). Pursuant to Item 1 of Table 4 of Subpart DDDDD, Boiler No. 9 is required to maintain the 30-day rolling average pressure drop at or above the lowest one-hour average pressure drop measured during the performance test. In addition, Boiler No. 9 is required to

maintain the 30-day rolling average scrubbant flow rate at or above the lowest one-hour average scrubbant flow rate measured during the performance test. Pursuant to Item 8 of Table 4 to Subpart DDDDD, Boiler No. 9 is required to maintain the 30-day rolling average oxygen content at or above the lowest hourly average oxygen content measured during the CO performance test. Pinova currently conducts performance tests on Boiler No. 9 every 3 years as the emissions of all pollutants were below 75% of their respective limits during the most recent applicable tests. The facility is required to conduct an annual tune-up on Boiler No. 9, which does not currently have a continuous oxygen trim system, as specified in 40 CFR 63.7540.

Pinova currently complies with the Boiler MACT regulations by completing annual tune-ups, conducting performance testing, and operating continuous monitoring system (CMS), providing reports under §63.7550(c)(1), (3), and (4), respectively. The permit has been updated to include applicable requirements to reflect these compliance options, as requested in the application. The initial tune-ups for all existing units were conducted prior to the Boiler MACT compliance date of January 31, 2016. The initial tune-up for GRD01 will be completed within five years of startup. Pinova also completed the one-time energy assessment for P010 performed by a qualified energy assessor prior to the Boiler MACT compliance date of January 31, 2016.

40 CFR 63 Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines
This subpart regulates HAP emissions from reciprocating internal combustion engines (RICE) at both major and area sources of HAP. The Brunswick facility employs RICE subject to this rule.

Different requirements apply based on whether the site is a major or area source of HAP, whether a unit is new or existing, whether the RICE is used for emergency purposes only, and whether it has a power rating above or below 500 hp. An engine is classified as new if it was installed on or after June 12, 2006, or was reconstructed after that date; otherwise, the unit is classified as existing. The Brunswick facility has three (3) fire pump engines, two (2) of which are classified as existing, emergency units. Additionally, the facility has two (2) other engines associated with the Hard Resins Sump and the POTW Lift Station that were construction prior to 2006.

Pinova installed a new RICE engine as Fire Pump #4 in 2019 that is subject to this rule. Engines subject to 40 CFR 60 Subpart IIII meet the definition of new engines in this rule; hence, the new unit will be regulated in this rule as a new engine. The facility demonstrates compliance with Subpart ZZZZ by complying with the applicable requirements under 40 CFR 60 Subpart IIII. No further requirements apply for the new engine under this part.

The existing Pinova engines do not have any emission limitations or testing requirements in the rule.

Georgia Rules for Air Quality Control

Georgia Rule 391-3-1-.02(2)(b) – Visible Emissions
This rule limits visible emissions from any source to an opacity of not more than 40%, The facility will comply with this standard through proper maintenance and operation of all sources.

Georgia Rule 391-3-1-.02(2)(d) – Fuel-Burning Equipment
This rule establishes the PM emission rate, visible emissions limit, and NO_X emissions limit for fuel-burning equipment. The Hard Resin Dowtherm Boiler (HR01), Terpene Resins Hot Oil Heater (TR08), SCP Resins Dowtherm Boiler (SP06), Liquid Resins Xceltherm Vaporizer (LR02), Gum Rosin Distillation Dowtherm Boiler (GRD01), Boiler No. 9 (P009) and Boiler No. 10 (P010) are subject to the limitations of Rule (d). Pinova employs good operational practices and proper operation of the associated control equipment to provide reasonable assurance of meeting this standard.

Georgia Rule 391-3-1-.02(2)(e) – Particulate Matter Emissions
This rule establishes PM emission limits based on the following equations:

$E = 4.10P^{0.67}$, for process input weight rates of less than or equal to 30 tons/hr

$E = 55.0P^{0.11}$, for process input weight rates of greater than 30 tons/hr

Where: E = the allowable PM emission rate in pounds/hour
P = the process input weight rate in tons/hr

Due to the nature of operations at the facility, these emissions are not anticipated to exceed the limits of this rule.

Georgia Rule 391-3-1-.02(2)(g) – Sulfur Dioxide
This rule limits the sulfur content for fuel burning sources. Several emission sources at Pinova are subject to this regulation. Liquid Resins Xceltherm Vaporizer (LR02), SCP Resins Dowtherm Boiler (SP06), and Gum Rosin Distillation Dowtherm Boiler (GRD01) are subject to the 2.5 percent by weight limit; however, SP06 accepted a more stringent limit of 0.5 percent by weight. Terpene Resins Hot Oil Heater (TR08) is subject to a 1 percent by weight limitation, while Boiler No. 9 (P009) and Boiler No. 10 (P010) are subject to a 3 percent by weight limit. Pinova demonstrates compliance with Rule (g) by combusting the appropriate sulfur content fuels for each emission unit and combusting natural gas in Boiler No. 10.

Georgia Rule 391-3-1-.02(2)(n) – Fugitive Dust
This rule establishes precautions that must be taken to prevent fugitive dust. The facility will take reasonable precautions to minimize any fugitive emissions.

Georgia Rule 391-3-1-.02(2)(bb) – Petroleum Liquid Storage
This rule requires that no person shall cause, let, permit, suffer, or allow the use of a fixed roof storage vessel with capacities of 40,000 gallons or greater containing a volatile petroleum liquid where true vapor pressure is greater than 1.52 psia unless the vessel is fitted with a floating roof or the vessel has been fitted with control equipment demonstrated to have control efficiency equivalent.

The diesel and gasoline tanks are the only volatile petroleum liquids stored in tanks on site, all of which are below the 40,000-gallon threshold of Rule (bb). Therefore, this rule is not applicable.

C. Permit Conditions

The following table lists the changes made to conditions that appear in Section 3.0 of Permit No. 2861-127-0002-V-07-0. All conditions unchanged were held over from the previous permit and subsequent amendments.

Permit Condition	Original Condition		Notes
	Number	Permit	
3.2.1	3.2.1	V-06-0	No change. This condition limits the production weight of pale wood rosin from the extraction process (EXG1) to less than 12.5 million pounds per month.
3.2.2 – 3.2.3	3.2.2 – 3.2.3	V-06-0	No change. These conditions limit VOC and H_2S emissions from the Staybelite/Foral resin reactors (SA03, SA05, SAG1) to less than 40 tons and 10 tons, respectively, during any consecutive 12-month period.
3.2.4	3.2.4	V-06-0	No change. This condition limits emissions from the Hard Resins Thermal Oxidizer (HRTO) to the established limits per the GA Air Toxic Guidelines.
3.2.5 – 3.2.6	3.2.5 – 3.2.6	V-06-0	No change. These conditions limit methanol and VOC emissions from the Liquid Resins Stills & Towers (LRG1) to less than 3.5 lb/hour and 40 tons per any consecutive 12-month period, respectively.
3.2.7	3.2.7	V-06-0	No change. This condition limits the amount of natural gas combusted in Boiler No. 10 (P010) to less than 1,763 million cubic feet per any consecutive 12-month period.
--	3.2.8 – 3.2.9	V-06-1	Deleted. The No. 10 Boiler (P010) no longer combusts distillate fuel oil.
3.2.8	3.2.10	V-06-0	No change. This condition limits the combined steam production from the Nos. 9 & 10 Boilers (P009, P010) to less than or equal to 1,160,739 tons per any consecutive 12-month period.
3.2.9	3.2.11	V-06-1	No change. This condition limits CO emissions from the No. 10 Boiler (P010) to less than 0.170 lb/MMBtu while firing natural gas.
3.2.10	3.2.12	V-06-1	No change. This condition limits NO_X emissions from the No. 10 Boiler (P010) to less than the established rates per 40 CFR 60 Subpart Db.
--	3.2.13	V-06-1	Deleted. The No. 10 Boiler (P010) no longer combusts distillate fuel oil.
--	3.2.14	V-06-1	Deleted. The annual capacity factor for the No. 10 Boiler (P010) was removed under Permit Amendment No. 2861-127-0002-V-06-1.
3.2.11	3.2.15	V-06-1	No change. This condition requires the facility to only combust natural gas in the No. 10 Boiler (P010).
3.3.1 – 3.3.2	3.3.1 – 3.3.2	V-06-0	No changes. These conditions require the facility to comply with all applicable provisions of 40 CFR 60 Subparts A and Db.
--	3.3.3	V-06-0	Deleted. The facility requested to remove Subpart Kb conditions since their tanks are not subject to this subpart.
3.3.3	3.3.4	V-06-0	No change, This condition requires the facility to comply with applicable requirements of 40 CFR 63 Subpart FFFF.
3.3.4	3.3.5	V-06-1	No change. This condition requires the facility to implement and maintain a leak detection and repair program per the requirements of 40 CFR 63 Subpart UU.
--	3.3.6	V-06-1	Deleted. This condition was redundant with V-06-0 Condition 3.3.38.
3.3.5	3.3.7	V-06-0	No change. This condition requires the facility to comply with applicable provisions of 40 CFR 60 Subpart VV.
3.3.6	3.3.8 – 3.3.9	V-06-0	These conditions restrict the use of recovered methanol and recovered MIBK to only within Source Groups LRG1 and EBG1, respectively. The facility provided information indicating additional applicable processes. The condition was amended to cover all applicable equipment rather than specifying only two of them.
3.3.7 – 3.3.9	3.3.10 – 3.3.13	V-06-0	No changes. These are 40 CFR 63 Subpart FFFF requirements.

Permit Condition	Original Condition		Notes
	Number	Permit	
3.3.10	--	V-07-0	Added. The facility will be subject to work practice standards for tanks during shutdown operations (i.e. emptying and degassing of a storage tank) with new requirements for 40 CFR 63 Subpart FFFF.
3.3.12	3.3.14	V-06-0	No changes. These are 40 CFR 63 Subpart FFFF requirements.
3.3.13	3.3.15	V-06-0	Per the revisions to 40 63 Subpart FFFF, a compliance date of August 12, 2023 was added for when SSM provisions no longer apply for 40 CFR 63 Subpart FFFF.
3.3.14	3.3.16	V-06-0	No change. This is a 40 CFR 63 Subpart FFFF requirement.
3.3.15	3.3.17	V-06-0	Minor changes to remove reference to Group 2 in order to make the requirement more general in case of future Group 1 applicability.
3.3.16 – 3.3.17	3.3.18 – 3.3.19	V-06-0	No changes. These are 40 CFR 63 Subpart FFFF requirements.
3.3.18	3.3.20	V-06-0	This condition was updated for compliance after August 12, 2023, when the SSM provisions no longer apply for 40 CFR 63 Subpart FFFF.
3.3.19	--	V-07-0	This condition was added to reflect general requirements after August 12, 2023 for 40 CFR 63 Subpart FFFF.
3.3.20	3.3.21	V-06-0	No change. This is a 40 CFR 63 Subpart FFFF requirement.
3.3.21	--	V-07-0	This condition was added to reflect bypasses after August 12, 2023 are no longer allowed for any reason for 40 CFR 63 Subpart FFFF.
3.3.22	--	V-07-0	This condition was added to reflect new requirements for maintenance vents after August 12, 2023 for 40 CFR 63 Subpart FFFF.
3.3.23	3.3.22	V-06-0	This condition outlines requirements for closed vent systems per 40 CFR 63 Subpart SS. Per the revisions to 40 CFR 63 Subpart FFFF a compliance date of August 12, 2023 was added to 3.3.23.a.iii. Requirements originally omitted related to transfer racks were added as well.
3.3.24	3.3.23	V-06-0	This condition includes requirements for equipment leaks for 40 CFR 63 Subpart UU as reference in 40 CFR 63 Subpart FFFF. The facility's compliance option for connectors in light liquid service was included as it was originally omitted. Changes to 40 CFR 63 Subpart FFFF provisions for pump leak definitions starting August 12, 2021 were incorporated. In addition, the new requirement for initially monitoring equipment upon startup was included in this condition.
3.3.25 – 3.3.26	3.3.24 – 3.3.25	V-06-0	No changes. These conditions outline requirements for equipment leaks per 40 CFR 63 Subpart UU.
3.3.27	3.3.26	V-06-0	This condition outlines requirements for leak equipment identification. It was updated to remove language that does not apply to the facility for the chosen compliance alternative.
3.3.28 – 3.3.32	3.3.27 – 3.3.31	V-06-0	No changes. These conditions outline requirements for equipment leaks per 40 CFR 63 Subpart UU.
3.3.33	3.3.32	V-06-0	This condition was updated to reflect new changes for pressure relief devices starting August 12, 2023 for 40 CFR 63 Subpart FFFF.
3.3.34 – 3.3.36	3.3.33 – 3.3.35	V-06-0	No changes. These conditions outline requirements for equipment leaks per 40 CFR 63 Subpart UU.
--	3.3.36 – 3.3.37	V-06-1	Deleted. The No. 10 Boiler (P010) no longer combusts distillate fuel oil. The opacity limit was moved to section 3.4 of the permit under Amendment V-06-1.
3.3.37 – 3.3.40	3.3.38 – 3.3.41	V-06-1	These conditions require the facility to comply with the applicable provisions of 40 CFR 63 Subpart DDDDD for Boilers 9 & 10 (P009, P010). The references to the compliance date were removed as it has already passed. The CO limit in former Condition 3.3.39.c (now 3.3.34.c) was updated to the correct limit per Subpart DDDDD.
3.3.41	--	V-07-0	This condition was added to include the previously omitted but applicable site-specific monitoring plan requirement for 40 CFR 63 Subpart DDDDD.
3.3.42	--	V-07-0	This condition was added to include the requirements for a written startup and shutdown plan if the facility uses definition (s) of "startup" per 40 CFR 63 Subpart DDDDD.
3.4.1	3.4.1	V-06-0	No change. This condition establishes an opacity limit for the listed equipment per GA Rule (b).
3.4.2	3.4.2	V-06-0	No change. This condition establishes a PM emission limit for the listed equipment per GA Rule (e).

Permit Condition	Original Condition		Notes
	Number	Permit	
3.4.3	3.4.3	V-06-0	No change. This condition establishes an opacity limit for the listed equipment per GA Rule (n).
3.4.4	3.4.4	V-06-0	No change. This condition limits sulfur content in fuel burned in the Liquid Resins Xceltherm Vaporizer (LR02).
3.4.5	3.4.5	V-06-0	No change. This condition establishes a PM emission limit for the listed fuel-burning equipment per GA Rule (d).
3.4.6	3.4.6	V-06-0	No change. This condition establishes an opacity limit for the sawdust handling areas (PFG1) per GA Rule (n).
3.4.7 – 3.4.9	3.4.7 – 3.4.9	V-06-0	No changes. These conditions establish emission limits under GA Rule (d).
3.4.10 – 3.4.11	3.4.10 – 3.4.11	V-06-0	No changes. These conditions limit sulfur content in fuel and establish an SO2 emission limit for the No. 9 Boiler (P009) per GA Rule (g).
--	3.4.12	V-06-0	Deleted. This condition required petroleum storage tanks greater than 40,000 gallons or that have contents with a vapor pressure greater than 1.52 psia to be fitted with a floating roof per GA Rule (bb). The facility stores diesel and gasoline in tanks that are less than 40,000 gallons; therefore Rule (bb) is not applicable.
3.4.12	3.4.13	V-06-1	No change. This condition establishes an opacity limit for the No. 10 Boiler (P010) per GA Rule (d).
3.5.1	3.5.1	V-06-0	No change. This condition requires the facility to keep an inventory of filter bags for each baghouse.
3.5.2	3.5.2	V-06-0	No change. This condition limits the sulfur content of fuel burned in the Terpene Resins Hot Oil Heater (TR08).
3.5.3	3.5.3	V-06-0	No change. This condition requires the Hard Resins Thermal Oxidizer (HRTO) to be operated any time the hard resins process is in operation.
3.5.4	3.5.4	V-06-0	No change. This condition limits the sulfur content of fuel burned in the SCP Resins Dowtherm Boiler (SP06).
3.5.5	3.5.5	V-06-0	No change. This condition outlines acceptable fuel for combustion in the No. 9 Boiler (P009).

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

The following table lists the changes made to conditions that appear in Section 4.0 of Permit No. 2861-127-0002-V-07-0. All conditions unchanged were held over from the previous permit and subsequent amendments.

Permit Condition	Original Condition		Notes
	Number	Permit	
4.2.1	4.2.1	V-06-1	No change. This condition requires the facility to conduct an annual performance test for opacity for the No. 9 Boiler (P009).
4.2.2	4.2.2	V-06-0	This condition requires the facility to conduct initial compliance demonstrations per the requirements of 40 CFR 63 Subpart FFFF. It was amended to include new requirements for when performance tests must be conducted under 40 CFR 63 Subpart FFFF after August 12, 2023.

Permit Condition	Original Condition		Notes
	Number	Permit	
4.2.3	4.2.3	V-06-0	No change. This condition outlines procedures for monitoring closed vent systems per the requirements of 40 CFR 63 Subpart SS.
4.2.4	4.2.4	V-06-0	No change. This condition outlines testing requirements for equipment leaks per 40 CFR 63 Subpart UU.
4.2.5	4.2.5	V-06-0	No change. This condition outlines applicable requirements for performance testing per 40 CFR 63 Subpart DDDDD.
4.2.6	4.2.6	V-06-1	This condition outlines requirements for performance testing for the No. 9 Boiler (P009) per 40 CFR 63 Subpart DDDDD. The specifics for reduced performance testing have been included in this condition for ease of reference.
4.2.7	4.2.7	V-06-1	This condition required annual tune-ups of the Nos. 9 and 10 Boilers (P009 and P010) per the requirements of 40 CFR 63 Subpart DDDDD. Per the facility's request, it was revised to update the tune-up frequency for the No. 10 Boiler (P010) to once every 5 years, and also include tune-up frequencies for the Hard Resin Dowtherm Boiler (HR01), Liquid Resins Xceltherm Vaporizer (LR02), Terpene Resins Hot Oil Heater (TR08), SCP Resins Dowtherm Boiler (SP06), and Gum Rosin Distillation Dowtherm Boiler (GRD01).
--	4.2.8	V-06-1	Deleted. The one-time energy assessment has been completed.
4.2.8	4.2.9	V-06-1	No change. This condition outlines compliance requirements for the No. 10 Boiler (P010) for the NO_X emission limits established in Condition 3.2.10, per 40 CFR 63 Subpart DDDDD.

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

The following table lists the changes made to conditions that appear in Section 5.0 of Permit No. 2861-127-0002-V-07-0. All conditions unchanged were held over from the previous permit and subsequent amendments.

Permit Condition	Original Condition		Notes
	Number	Permit	
5.2.1	5.2.1	V-06-1	This condition outlines specific monitoring parameters for the Nos. 9 & 10 Boilers (P009 & P010). Paragraph a. of this condition was removed under Amendment V-06-1. Subsequent paragraphs were renumbered. The reference for the requirement for O_2 monitoring was updated in this renewal.
5.2.2 – 5.2.3	5.2.2 – 5.2.3	V-06-1	No changes. These conditions outline specific monitoring parameters for all process operations. Minor changes to wording were made. The originally omitted requirement to monitor operating load of the No. 9 Boiler per 40 CFR 63 Subpart DDDDD was included in Condition 5.2.2.
5.2.4	5.2.4	V-06-0	No change. This condition outlines monitoring and recordkeeping requirements for LDAR.
5.2.5 – 5.2.6	5.2.5 – 5.2.6	V-06-0	No changes. These conditions outline monitoring requirements for the baghouses.
5.2.7	5.2.7	V-06-0	No change. This condition outlines recordkeeping requirements for sources exempted from 40 CFR 60 Subpart VV.

Permit Condition	Original Condition		Notes
	Number	Permit	
5.2.8	--	V-07-0	This condition was added to incorporate new requirements for CPMS per 40 CFR 63 Subpart FFFF beginning August 12, 2023.
5.2.9	5.2.8	V-06-0	This condition outlines monitoring and recordkeeping requirements per 40 CFR 63 Subpart FFFF.
5.2.10	5.2.9	V-06-0	This condition outlines requirements for cooling towers under 40 CFR 63 Subpart FFFF. It has been revised to include testing requirements with a compliance date of August 12, 2023.
5.2.11 – 5.2.13	5.2.10 – 5.2.12	V-06-0	No changes. These are CAM specific monitoring requirements.
5.2.14 – 5.2.15	5.2.13 – 5.2.14	V-06-0	These conditions outline fuel analysis compliance requirements per 40 CFR 63 Subpart DDDDD. The reference to the compliance date was removed as it has already passed.
5.2.16	--	V-07-0	This condition was added to incorporate previously omitted requirements for CMS for 40 CFR 63 Subpart DDDDD.
5.2.17 – 5.2.19	5.2.15 – 5.2.17	V-06-1	No changes. These conditions outline 40 CFR 60 Subpart Db and CEMS monitoring requirements for the No. 10 Boiler (P010).

C. Compliance Assurance Monitoring (CAM)

Not applicable.

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 quarterly basis.

B. Specific Record Keeping and Reporting Requirements

The following table lists the changes made to conditions that appear in Section 6.0 of Permit No. 2861-127-0002-V-07-0. All conditions unchanged were held over from the previous permit and subsequent amendments.

Permit Condition	Original Condition		Notes
	Number	Permit	
6.1.7.a	6.1.7.a	V-06-1	This condition establishes any excess emissions to be reported. The No. 10 Boiler (P010) no longer burns distillate fuel oil and paragraphs i. – iii. were removed under Amendment V-06-1. Subsequent paragraphs have been renumbered.
6.1.7.b	6.1.7.b	V-06-1	This condition establishes any exceedances to be reported. The No. 10 Boiler (P010) no longer burns distillate fuel oil and paragraphs i, iii, iv, and v were removed under Amendment V-06-1. Remaining paragraphs ii, vi, vii, viii, and ix have been renumbered as i, ii, iii, iv, and v, respectively.
6.1.7.c.i – v	6.1.7.c.i – v	V-06-1	No changes. These conditions establish any excursions to be reported.

Permit Condition	Original Condition		Notes
	Number	Permit	
6.1.7.c.vi	6.1.7.c.vi	V-06-1	Paragraph (C) was deleted under Amendment V-06-1. The Venturi Scrubber does not operate in place of the Thermal Oxidizer. Paragraphs (D) – (F) in this condition have been renumbered as (C) – (E).
6.1.7.c.vii – ix	6.1.7.c.vii – viii	V-06-1	No changes. These conditions establish any excursions to be reported.
6.1.7.c.ix	6.1.7.c.ix	V-06-1	This condition specifies excursions for the No. 9 Boiler. Paragraphs (C) and (D) were added to includes previously omitted but applicable excursions for oxygen concentration and operating load. The condition was also updated to include the most recently approved operating parameter limits.
6.1.7.d	6.1.7.d	V-06-1	This condition establishes additional information to be reported. Paragraphs iv and v were deleted under Amendment V-06-1. The No. 10 Boiler (P010) no longer fires distillate fuel oil. Paragraphs vi – ix have been renumbered as iv – vii.
6.1.8 – 6.1.9	6.1.8 – 6.1.9	V-06-0	No changes. These are specific reporting requirements per 40 CFR 63 Subpart DDDDD.
6.1.10	6.1.10	V-06-0	This condition requires the periodic report for 40 CFR 63 Subpart DDDDD. It was updated to specify the dates reports are due.
6.1.11	6.1.11	V-06-1	This condition specifies applicable recordkeeping requirements for the No. 9 Boiler for 40 CFR 63 Subpart DDDDD. It was updated to include specifics for some records that were previously only referenced.
6.1.12 – 6.1.13	6.1.12 – 6.1.13	V-06-1	No changes. These are specific recordkeeping requirements per 40 CFR 63. Subpart DDDDD.
--	6.2.1	V-06-0	Deleted. The facility requested to remove Subpart Kb conditions since their tanks are not subject to this subpart.
6.2.1	6.2.2	V-06-0	No change. This condition requires the facility to maintain monthly records of process production weight of pale wood rosin for Source Groups EBG1 and EXG1.
6.2.2 – 6.2.8	6.2.3 – 6.2.9	V-06-0	No changes. These conditions outline requirements of records to be kept for the power plant operations and fuel burning sources, including requirements per 40 CFR 60 Subpart Db.
--	6.2.10	V-06-1	Deleted. The annual capacity limit was removed under Amendment V-06-1.
6.2.9 – 6.2.10	6.2.11 – 6.2.12	V-06-0	No changes. These are specific recordkeeping and reporting requirements for 40 CFR 63 Subpart FFFF.
6.2.11	--	V-07-0	This condition was added to incorporate reflected changes to 40 CFR 63 Subpart FFFF. It requires a supplement to the Notification of Compliance Status to be submitted for pressure release management work practice standards.
6.2.12	6.2.13	V-06-0	This condition specifies reporting requirements. It was revised to reflect the recent changes to 40 CFR 63 Subpart FFFF.
6.2.13	6.2.14	V-06-0	This condition specifies recordkeeping requirements. It was revised to reflect the recent changes to 40 CFR 63 Subpart FFFF.
6.2.14 – 6.2.16	6.2.15 – 6.2.17	V-06-0	No changes. These are specific recordkeeping and reporting requirements for 40 CFR 63 Subparts FFFF and SS.
6.2.17 – 6.2.19	6.2.18 – 6.2.20	V-06-0	This condition specifies records and monitoring system data requirements. It was revised to reflect the recent changes to 40 CFR 63 Subpart FFFF.
6.2.20	6.2.21	V-06-0	This condition requires periodic reports for 40 CFR 63 Subpart SS. It was revised to include specific periodic report submittal deadlines. Language referencing transfer racks was also added for completeness.
6.2.21 – 6.2.23	6.2.22 – 6.2.24	V-06-0	No changes. These are specific recordkeeping and reporting requirements for 40 CFR 63 Subpart UU.
6.2.24	6.2.25	V-06-0	This condition specifies reporting requirements of 40 CFR 63 Subpart UU. It was revised to include specific periodic report submittal deadlines.
6.2.25	6.2.26	V-06-1	No change. This condition outlines specific recordkeeping and reporting requirements per 40 CFR 60 Subpart Db.

VII. Specific Requirements

A. Operational Flexibility: Not applicable.

B. Alternative Requirements: Not applicable.

C. Insignificant Activities

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

D. Temporary Sources: Not applicable.

E. Short-Term Activities: Not 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: Not applicable.

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.