Facility Name: **Kraton Chemical, LLC**
City: Savannah
County: Chatham
AIRS #: 04-13-05100148

Application #: TV-785791
Date Application Received: January 2, 2024
Permit No: 2821-051-0148-V-05-0

Program	Review Engineers	Review Managers
SSPP	Heather Brown	Wendy Troemel
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Permitting Program Manager		Steve Allison

Introduction

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

I. Facility Description

A. Facility Identification

1. Facility Name: Kraton Chemical, LLC

2. Parent/Holding Company Name

Arizona Chemical Company, LLC

3. Previous and/or Other Name(s)

Union Camp Corporation
Union Camp Corporation, Chemical Products Division
Arizona Chemical Company, Savannah Plant

4. Facility Location

The facility is located at 1201 West Lathrop Avenue, Savannah Georgia 31415 in Chatham County.

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

The facility is located in an attainment area.

B. Site Determination

Kraton Chemical, LLC (AIRS No. 051-00148) and International Paper-Savannah Mill (AIRS No. 051-00007) are located on contiguous and/or adjacent properties, are not classified under the same industrial grouping (i.e., SIC Code "28" and "26"), and they do not operate under common control. The International Paper-Savannah Mill may provide some materials to Kraton Chemical, LLC depending on contractual arrangements.

Kraton Chemical, LLC (AIRS No. 051-00561) and Arboris, LLC (AIRS No. 051-00261) are located on contiguous properties, are classified under the same industrial grouping (i.e., SIC Code "28") but do not operate under common control. Arboris, LLC may provide some materials to Kraton Chemical, LLC depending on contractual arrangements. Kraton Chemical, LLC may provide some materials to Arboris, LLC depending on contractual arrangements.

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
2821-051-0148-V-04-0	July 18, 2019	Renewal permit.
2821-051-0148-V-04-1	December 11, 2019	Installation and operation of a crude oil oxidation process.
2821-051-0148-V-04-2	June 29, 2020	Revision of pH excursion value for Scrubber CE02.
Off-Permit (App. No. 28034)	August 3, 2021	Baghouse replacement.
Off-Permit (App. No. 28566)	November 7, 2022	Trial efficiency testing of a 3-phase centrifuge system in parallel with the 2-stage system.
2821-051-0148-V-04-3	June 22, 2023	Revision of pressure drop excursion value for Baghouse CE03.

D. Process Description

1. SIC Codes(s)

2821 – Plastics Materials, Synthetic Resins, and Nonvulcanizable Elastomers

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)

The facility manufactures adhesive esters, modified rosins, tackifiers, ink resins, tall oil products, crude tall oil, and oxidized crude tall oil.

3. Overall Facility Process Description

<u>Distillation Process</u>
In the Distillation Process, crude tall oil received from the Tall Oil Process and rail cars is fractionated in three distillation columns to produce pitch, rosin, distilled tall oil, purified fatty acids, tall oil heads and a volatile fraction. Pitch is sold for sterol extraction or fuel. The tall oil heads are sold for fuel. Fatty acids are sold as a product. Rosin is sold and is also upgraded into various resin products.

Rosin Ester Process

In the Rosin Ester Process, "hard resins" are produced. These resins are largely modified maleic resins produced through the reaction of rosin with dibasic acids to achieve hard, brittle resins. The products are either cooled on a flaker belt and the flakes are bagged for shipment or shipped in bulk in molten form. The flakes are sold to producers of lacquers, varnishes, and inks. Flaker emissions are controlled by a mist eliminator and baghouse. Vapors from the reactor vents are controlled by condensers or a thermal incinerator.

Oxidized Crude Tall Oil

In the Oxidized Crude Tall Oil Process, crude tall oil (CTO) is heated via heat exchanger, sparged with air, and then cooled down. The final product, oxidized CTO, is transferred to bulk storage and then loaded into trucks and railcars for sale into the oil and gas industry as a primary emulsifier. The reactor is controlled by a scrubber.

Tall Oil Process

In the Tall Oil Process, tall oil soap is reacted with sulfuric acid to form crude tall oil and sodium sulfate in a continuous reactor. In the reactor, soap skimmings, water, and sulfuric acid are charged, heated, and vigorously agitated. This reaction forms a crude tall oil/brine lignin mixture. Centrifuges continuously separate crude tall oil from the brine/lignin mixture. This liberates the fatty acids from the soap. Sulfuric acid also reacts with residual sulfides in the black liquor. The crude tall oil is piped from the Tall Oil Process to the Distillation Process.

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 Title I site major source threshold for any regulated NSR pollutant is 100 tons per year because Kraton Chemical, LLC's operation is classified as one of the 28 named source categories in 40 CFR 52.21(b). The Title I site does not include Arboris, LLC or International Paper. Kraton is not currently classified as an existing major stationary source under PSD/NSR because potential emissions of volatile organic compounds (VOCs) are now less than 100 tons per year due to the shutdown of the Solution Resinates Process. The facility will evaluate synthetic or minor source options under Title V in the future.

The facility has accepted the following limits to avoid PSD:

a. The facility is permitted to burn only natural gas in Boiler E101, Temporary Boiler TB01, Temporary Boiler TB02, and Dowtherm Vaporizer EU37.
b. The Permittee can only operate Temporary Boilers TB01 and/or TB02 only when Boiler E101 is not in operation.
c. The maximum heat input of Temporary Boilers TB01 and/or TB02 shall have a combined heat input of less than 139.5 MMBtu/hr.

d. Emissions of PM (filterable), PM_{10}, and $PM_{2.5}$ from Rosin Ester Hold Tank E141 are limited to 4.38, 2.10, and 0.95 pounds per hour, respectively.
e. Emissions of VOC from Rosin Ester Hold Tank E141 are limited to 4.42 pounds per hour.

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 Permittee shall comply with all applicable provisions of National Emission Standards for Hazardous Air Pollutants (NESHAP) as found in 40 CFR 63 Subpart A – "General Provisions" and 40 CFR 63 Subpart ZZZZ – "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

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	No
Program Code V – Title V	Yes

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

Kraton operates under facility-wide synthetic minor emissions limits for individual and total HAP.

B. Applicable Rules and Regulations

Not applicable.

C. Compliance Status

The facility has indicated compliance with all rules and regulations.

D. Permit Conditions

Condition 2.1.1 is a facility wide limit of 10/25 tons per year for individual and total HAPs. The limits were carried over from the previous permit.

III. Regulated Equipment Requirements

A. Equipment List for the Process

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
Boilers				
E101	Steam Boiler (139.5MMBtu/hr)	40 CFR 60 Subpart A 40 CFR 60 Subpart Db 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	None	None
TB01	Temporary Boiler	40 CFR 60 Subpart A 40 CFR 60 Subpart Db 40 CFR 60 Subpart Dc 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	None	None
TB02	Temporary Boiler	40 CFR 60 Subpart A 40 CFR 60 Subpart Db 40 CFR 60 Subpart Dc 391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	None	None
Rosin Ester Process				
EU04	Rosin Ester Hold Tank (V-2391)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE04	Mist Eliminator
EU06	Drycharger for V-2301 (ME-2352)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE05	Drycharger Baghouse (ME-2352)
EU26	Pentaerythritol (PE) Storage Silo (S-2569)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE12	PE Silo Baghouse (F-2569)
EU27	PE Storage Silo (S-2568)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE13	PE Silo Baghouse (F-2568)

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
EU29	2301 Reactor Receiver (ME-2598B)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE15	Reactor Receiver Baghouse (F-2598B)
EU30	2501 Reactor Receiver (ME-2598C)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE16	Reactor Receiver Baghouse (F-2598C)
EU31	Dry Charger for V2501 (ME-2578)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE17	Drycharger Baghouse (ME-2578)
EU37	Resin Plant Dowtherm Vaporizer	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	None	None
EU41	Rosin Oil Tank (V-2579)	None	CE18	Thermal Oxidizer (IN-2612)
EU70	Rosin Ester Hold Tank (V-2620)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE04	Mist Eliminator
E115	Dry Charger for Reactor 2701 (ME-2713)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE47	Reactors Dry Charger Dust Collector (ME-2713)
E116	Reactors Receiver (ME-2703)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE48	Dust Collector (ME-2703)
E117	Reactors Receiver (ME-2803)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE55	Dust Collector
E123	Hot Oil Heater (DH-2741)	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	None	None
E131	Flaker Packaging & Flaker Bagging	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE03	Flaker Belt Baghouse (F-2326)
E140	Rosin Ester Hold Tank (V-2761)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE53	Flaker Hold Tank Mist Eliminator
E141	Rosin Ester Hold Tank (V-2894)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE56	Mist Eliminator
E147	Dry Charger for Reactor 2801	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE54	Reactors Dry Charger Dust Collector
EU05 E129	Flaker Line (ME-2301) Flaker Belt #2 (ME-2801)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	CE03 CE04	Flaker Belt Baghouse (F-2326) Mist Eliminator
 EU40 EU89 E113 E114	<u>Reactors</u> V-2501 V-2301 V-2701 V-2801	None	CE18	Thermal Oxidizer (IN-2612)
 E132 E133	<u>Light Oils Receivers</u> V-2704 V-2804	None	CE18	Thermal Oxidizer (IN-2612)
Tall Oil Plant - Distillation Process				
EU44	DV-1004 Distillation Plant Dowtherm Vaporizer	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	None	None
EU96	T-3 Distillation Column	None	CE42 EU44	Distillation Plant Caustic Scrubber (FT-1041) DV-1004 Dowtherm Vaporizer (CE51)
Tall Oil Plant - Tall Oil Process				
EU45	Tall Oil Continuous Reactor/Degasser Tank (V-3310)	None	CE19	Top Scrubber No. 1
EU92	Center Feed Tank (V-3313)	None	CE19 CE43	Top Scrubber No. 1 Top Scrubber No. 2
EU93	Neutralization Tank (V-3003)	None	None	None
EU98	Neutralization Tank (V-3012)	None	CE19 CE43	Top Scrubber No. 1 Top Scrubber No. 2

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
EU99	Tall Oil Decanter System	None	CE19 CE43	Top Scrubber No. 1 Top Scrubber No. 2
Crude Tall Oil Oxidation Process				
EU02	Reactor (V-2106)	None	CE02	Wet Scrubber
Pilot Plant				
EU59	750 gallon Pilot Plant Reactor (V-750)	None	CE26	Pilot Plant Scrubber (V-300)
EU60	200 gallon Pilot Plant Reactor (V-200)	None	CE26	Pilot Plant Scrubber (V-300)

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

B. Equipment & Rule Applicability

Equipment Removed from Permit:
The following equipment has been decommissioned and has not been included in this renewal permit:

- Source Group OG03- Solution Resinates Process and associated control equipment, including Flare CE46; and
- Source Code E145 – Train and Rail Car Loading for HAP emitting products.

Emission and Operating Caps:
Emission and operating caps related to PSD Avoidance are listed in Section I.E.1 of this narrative. The emission and operating caps have been carried over from the previous permit.

Rules and Regulations Assessment:
Steam Boiler E101 is a natural gas boiler rated at 139.5 MMBtu/hr and was manufactured and installed in 2002. The boiler is not equipped with a control device. The boiler is subject to the following rules and regulations:

- 40 CFR 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units: The applicability date for 40 CFR 60 Subpart Db is June 19, 1984 and applies to boilers with a heat input greater than 100 MMBt/hr. The unit is not subject to limits for SO_2, PM, or opacity because it burns only natural gas. The boiler is subject to a NO_X limit of 0.20 lb/MMBtu on a 30-day rolling average basis, including periods of startup, shutdown, and malfunction.

- 391-3-1-.02(2)(d) – Fuel-Burning Equipment: Rule (d) limits PM emissions (in terms of lb/MMBtu) to $0.5(10/R)^{0.5}$ where R is the heat input in MMBtu/hr. Rule (d) limits opacity to 20 percent (6-minute average), except for one 6-minute period per hour of not more than 27 percent.

- 391-3-1-.02(2)(g) – Sulfur Dioxide: Rule (g) limits fuel sulfur content based on heat input. The limit in Rule (g) is 3.0 percent sulfur, by weight. This limit is complied with by burning only natural gas, which is also a requirement under PSD avoidance.

Steam Boiler E101 is not subject to any requirements under 40 CFR 63 Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources because it is defined as a "gas-fired" boilers under the subpart.

Temporary Boilers TB01 and TB02 are natural gas boilers. They provide operational flexibility by allowing the facility to operate one or two additional boilers as "temporary" if and when the need arises. The maximum heat input of the temporary boilers shall not have a combined heat capacity of equal to or greater than 139.5 MMB/hr and they shall only be operated when Boiler E101 is not in operation. The boilers are subject to the following rules and regulations:

- 40 CFR 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units: The applicability date for 40 CFR 60 Subpart Db is June 19, 1984 and applies to boilers with a heat input greater than 100 MMBt/hr. A temporary boiler is subject if the unit has a heat input capacity of greater than 100 MMBtu/hr and no longer meets the definition of temporary fuel-burning equipment per Georgia Rule 391-3-1-.03(6)(b)15.

- 40 CFR 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units: The applicability date for 40 CFR 60 Subpart Dc is June 9, 1989 and applies to boilers with a heat input equal to or greater than 10 MMBtu/hr but less than 100 MMBtu/hr. A temporary boiler is subject if the unit has a heat input capacity of 100 MMBtu/hr or less, but greater than or equal to 10 MMBtu/hr and no longer meets the definition of temporary fuel-burning equipment per Georgia Rule 391-3-1-.03(6)(b)15.

- 391-3-1-.02(2)(d) – Fuel-Burning Equipment: Rule (d) limits PM emissions (in terms of lb/MMBtu) to $0.5(10/R)^{0.5}$ where R is the heat input in MMBtu/hr. Rule (d) limits opacity to 20 percent (6-minute average), except for one 6-minute period per hour of not more than 27 percent.

- 391-3-1-.02(2)(g) – Sulfur Dioxide: Rule (g) limits fuel sulfur content based on heat input. The limit in Rule (g) is 2.5 to 3.0 percent sulfur, by weight, depending on the size of the boiler. This limit is complied with by burning only natural gas which is also a requirement under PSD avoidance.

The temporary boilers are not subject to any requirements under 40 CFR 63 Subpart JJJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources because they are defined as a "gas-fired" boilers under the subpart.

The Rosin Ester Process is subject to the following rules and regulations:

- 391-3-1-.02(2)(b) – Visible Emissions: Rule (b) limits the opacity of emissions from air contaminant sources to less than 40 percent. The facility uses various control devices within the process to comply with the limit. These devices include mist eliminators, baghouses, and dust collectors.

- 391-3-1-.02(2)(e) – Particulate Emission from Manufacturing Processes: Rule (e) limits PM from a source based on the process input weight. The facility uses various control devices within the process to comply with the limit. These devices include mist eliminators, baghouses, and dust collectors.

- 391-3-1-.02(2)(d) – Fuel-Burning Equipment: For Dowtherm Vaporizer EU37, Rule (d) limits PM emissions (in terms of lb/MMBtu) to $0.5(10/R)^{0.5}$ where R is the heat input in MMBtu/hr. Rule (d) limits opacity to 20 percent (6-minute average), except for one 6-minute period per hour of not more than 27 percent.

- 391-3-1-.02(2)(d) – Fuel-Burning Equipment: For Hot Oil Heater E123, Rule (d) limits PM emissions to less than 0.5 pounds per MMBtu het input. Rule (d) limits opacity to 20 percent (6-minute average), except for one 6-minute period per hour of not more than 27 percent.

- 391-3-1-.02(2)(g) – Sulfur Dioxide: For Dowtherm Vaporizer EU37 and Hot Oil Heater E123 Rule (g) limits fuel sulfur content based on heat input. The limit in Rule (g) is 2.5 percent sulfur, by weight. This limit is complied with by burning only natural gas which is also a requirement under PSD avoidance for the Dowtherm Vaporizer.

- Avoidance of 40 CFR 52.21 – Rosin Ester Hold Tank E141 is subject to PM (filterable), PM_{10}, and $PM_{2.5}$ limits of 4.38, 2.10, and 0.95 pounds per hour, respectively. Emissions of VOC from the tank are limited to 4.42 pounds per hour.

The Tall Oil Plant – Distillation Process is subject to the following rules and regulations:

- 391-3-1-.02(2)(d) – Fuel-Burning Equipment: For DV-1004 Distillation Plant Dowtherm Vaporizer EU44, Rule (d) limits PM emissions (in terms of lb/MMBtu) to $0.5(10/R)^{0.5}$ where R is the heat input in MMBtu/hr. Rule (d) limits opacity to 20 percent (6-minute average), except for one 6-minute period per hour of not more than 27 percent.

- 391-3-1-.02(2)(g) – Sulfur Dioxide: For DV-1004 Distillation Plant Dowtherm Vaporizer EU44, Rule (g) limits fuel sulfur content based on heat input. The limit in Rule (g) is 2.5 percent sulfur, by weight. This limit is complied with by burning only natural gas.

The Tall Oil Plant - Tall Oil Process, Crude Tall Oil Oxidation Process, and Pilot Plant are not subject to any specific rules or regulations.

C. Permit Conditions

The following conditions have been carried over from the previous permit unless otherwise noted.

Condition 3.2.1 requires the facility operate all boilers on site as "gas-fired" boilers under the provisions of 40 CFR 63 Subpart JJJJJJ. Gas-fired boilers are not subject to the subpart.

Condition 3.2.2 specifies the equipment on site that can burn only natural gas. The requirements are used to comply with Georgia Rule (g) and to comply with PSD avoidance limits were applicable.

Conditions 3.2.3 and 3.2.4 specify the size limitations and conditions for which the facility may operate Temporary Boilers TB01 and TB02.

Conditions 3.2.5 through 3.2.8 are PM (filterable), PM_{10}, $PM_{2.5}$, and VOC limits for Rosin Ester Hold Tank E141. The limits were established under PSD avoidance provisions.

Condition 3.2.9 specifies the equipment for which Thermal Oxidizer CE18 must be operated.

Conditions 3.3.1 and 3.3.2 requires the Permittee to comply with 40 CFR 60 Subpart Db and the NO_X limit under the subpart for Boiler E101.

Conditions 3.3.3 through 3.3.4 specify the Permittee must comply with 40 CFR 60 Subpart Db or Dc depending on the size of the temporary boilers, if they no longer qualify as temporary.

Conditions 3.4.1 and 3.4.2 are the general applicability statements for Georgia Rules (b) and (e).

Condition 3.4.3 through 3.4.5 are the PM and opacity limits for fuel burning sources at the facility.

Condition 3.5.1 requires the facility to operate the Top Scrubbers while the Tall Oil Plant – Tall Oil Process is in operation.

Part 3.0 – Conditions No Longer Included in the Permit

Condition 3.2.1 of Air Permit No. 2821-051-0148-V-04-0 referred to Flare CE46 and has not been included in this permit. The flare and the associated process has been decommissioned.

Condition 3.2.6 of Air Permit No. 2821-051-0148-V-04-0 referred to a 189 tpy VOC PSD avoidance limit for the combined Solution Resinates Process Source Group OG03 and the Dowtherm Vaporizer EU37. Source Group OG03 has been decommissioned and potential emissions from the vaporizer is 0.26 tpy VOC. Based on this information, the condition is no longer necessary.

Conditions 3.2.11 and 3.2.12 of Air Permit No. 2821-051-0148-V-04-0 referred to operation of Flare CE46 and associated process equipment. The equipment and control device have been decommissioned and the conditions are no longer necessary.

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 conditions have been carried over from the previous permit unless otherwise noted.

Conditions 4.2.1 and 4.2.2 specify the NO_X monitoring and NO_X data handling requirements for Boiler E101 under 40 CFR 60 Subpart Db.

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 conditions have been carried over from the previous permit unless otherwise noted.

Condition 5.2.1 requires the facility to operate and maintain a PEMS for monitoring NO_X emissions from Boiler E101. This is used to comply with provisions of 40 CFR 60 Subpart Db.

Condition 5.2.2 requires the facility to continuously monitor temperature for Thermal Oxidizer CE18. The temperature monitoring ensures proper operation of the control device.

Conditions 5.2.3.a and 5.2.3.b require the facility to conduct periodic monitoring for Scrubber CE02. The parameters of scrubbant flow rate and percentage caustic were prescribed in Air Permit No. 2821-051-0148-V-04-0. Condition 5.2.3.b was modified in Amendment No. 2821-051-0148-V-04-1 as part of the permitting of the crude oil oxidation process to require pH monitoring instead of caustic percentage monitoring. The facility requested the monitoring frequency be updated to once per shift for the renewal. The change has been made and the reporting language has been updated according.

Conditions 5.2.3.c through 5.2.3.h require the facility to conduct periodic monitoring for Baghouse CE03, Mist Eliminator CE04, Scrubber CE42, Mist Eliminator CE53, and Mist Eliminator CE56. The facility requested the monitoring frequency be updated to once per shift for the renewal. The change has been made and the reporting language has been updated according.

Condition 5.2.3.i requires the facility to monitor fuel usage for Boiler E101. This is a requirement of 40 CFR 60 Subpart Db.

Condition 5.2.4 requires the facility to maintain a Preventative Maintenance Plant for the various baghouses and dust collectors on site. The condition has been updated for the renewal to remove reference to decommissioned Baghouses CE09, CE10, CE11, and CE44.

Part 5.0 – Conditions No Longer Included in the Permit

Condition 5.2.2.b of Air Permit No. 2821-051-0148-V-04-0 referred to decommissioned Flare CE46 and has not been included in this permit.

Condition 5.2.3.e through 5.2.3.m of Air Permit No. 2821-051-0148-V-04-0 referred to decommissioned Condenser CE06, Condenser CE07, Condenser CE20, Condenser C31, Condenser CE32, and Condenser CE33 and have not been included in this permit.

Condition 5.2.3.p of Air Permit No. 2821-051-0148-V-04-0 referred to decommissioned Condenser CE45 and has not been included in this permit.

C. Compliance Assurance Monitoring (CAM)

The facility is subject to CAM for PM emissions from EU04 – Rosin Ester Hold Tank (V-2391), EU70 – Rosin Ester Hold Tank (V-2620), and E140 – Rosin Ester Hold Tank (V-2761) and PM(filterable)/PM_{10}/$PM_{2.5}$ emissions from E141 – Rosin Ester Hold Tank(V-2894). Conditions 5.2.5 through 5.2.8 specify the CAM requirements.

VI. Record Keeping and Reporting Requirements

A. General Record Keeping and Reporting Requirements

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

B. Specific Record Keeping and Reporting Requirements

The following conditions have been carried over from the previous permit unless otherwise noted.

Conditions 6.1.7.b.i and 6.1.7.b.ii specify the exceedance reporting requirements for facility wide individual and total HAP emissions from the site.

Condition 6.1.7.b.iii specifies the exceedance reporting requirement for NO_X emissions from Boiler E101 under the provisions of 40 CFR 60 Subpart Db.

Condition 6.1.7.b.iv specifies the heat input exceedance reporting requirement for the operation of Temporary Boilers TB01 and TB02.

Condition 6.1.7.c.i specifies the scrubbant flow rate excursion reporting requirement for Scrubber CE02. A flow rate of 284 gpm appeared in Air Permit No. 2821-051-0148-V-04-0. The condition was modified in Amendment No. 2821-051-0148-V-04-1 as part of the permitting of the crude oil oxidation process to change the value to 10 gpm. The reporting requirement has been updated for the renewal to any three consecutive readings to match the recording frequency in Condition 5.2.3.

Condition 6.1.7.c.ii specified the pH excursion reporting requirement for Scrubber CE02. The original condition appeared in Air Permit No. 2821-051-0148-V-04-0, which required caustic monitoring. The condition was modified in Amendment No. 2821-051-0148-V-04-1 as part of the permitting of the crude oil oxidation process to change the excursion range to a pH of 11 to 12. The condition was modified a final time in Amendment No. 2821-051-0148-V-04-2 to allow any pH of 11 or greater. The reporting requirement has been updated for the renewal to any three consecutive readings to match the recording frequency in Condition 5.2.3.

Condition 6.1.7.c.iii specifies the pressure drop excursion reporting requirement for Baghouse CE03. A range of 0.20 inches to 10.0 inches of water appeared in Air Permit No. 2821-051-0148-V-04-0. The condition was modified in Amendment No. 2821-051-0148-V-04-3 to expand the range from 0.20 inches to 40.0 inches of water. The reporting requirement has been updated for the renewal to any three consecutive readings to match the recording frequency in Condition 5.2.3.

Conditions 6.1.7.c.iv through 6.1.7.c.x specify the excursion reporting requirements for Mist Eliminator CE04, Scrubber CE42, Mist Eliminator CE53, Mist Eliminator CE56, and Thermal Oxidizer CE18. The reporting requirement for Conditions 6.1.7.c.iv through 6.1.7.c.viii have been updated for the renewal to any three consecutive readings to match the recording frequency in Condition 5.2.3.

Condition 6.2.1 specifies the records that must be maintained for the operation of Boiler E101 under the provisions of 40 CFR 60 Subpart Db.

Condition 6.2.2 requires the facility to include the Boiler E101 records required by Condition 6.2.1 with the semiannual report. This is a requirement of 40 CFR 60 Subpart Db.

Condition 6.2.3 requires the facility to maintain records for natural gas combustion, operation of the Temporary Boilers, and records to prove operation of Scrubber CE26 and Thermal Oxidizer CE18 when associated equipment is operated. The condition has been updated for the renewal to remove reference to decommissioned Flare CE46. The condition has also been updated for the renewal to require the facility to maintain records of the operation of the Temporary Boilers.

Conditions 6.2.4 through 6.2.6 require the facility to maintain records and calculate individual and total facility-wide HAP emissions to demonstrate compliance with Condition 2.1.1. Condition 6.2.4 has been updated for the renewal to remove reference to decommissioned Flare CE46.

Part 6.0 – Conditions No Longer Included in the Permit

Conditions 6.1.7.b.iv through 6.1.7.b.x of Air Permit No. 2821-051-0148-V-04-0 referred to decommissioned Solution Resinates Source Group OG03, Condenser CE06, Condenser CE07, Condenser CE20, Condenser CE31, Condenser CE32, and Condenser CE33. The conditions have not been included in this permit.

Condition 6.1.7.b.xiii of Air Permit No. 2821-051-0148-V-04-0 referred to decommissioned Condenser CE45. The condition has not been included in this permit.

Condition 6.1.7.b.xvi of Air Permit No. 2821-051-0148-V-04-0 referred to decommissioned Flare CE46. The condition has not been included in this permit.

Conditions 6.2.7 through 6.2.9 of Air Permit No. 2821-051-0148-V-04-0 referred to decommissioned Solution Resinates Source Group OG03. The conditions have not been included in this permit.

Condition 6.2.10 of Amendment No. 2821-051-0148-V-04-1 was a startup notification requirement for the crude oil oxidation process. The notification has been completed and the condition has not been included in this permit.

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 December 5, 2024 and ended on January 6, 2025. No public or US EPA comments were received by the Division. Comments were received from the facility.

Facility Comments

Comment 1: On the cover letter, GA EPD identified the Parent Company as Arizona Chemical Company, LLC. In 2016, the Kraton Corporation purchased all outstanding shares of Arizona Chemical Company, LLC. Please update the Parent Company to Kraton Corporation.

EPD Response: The change has been made as requested.

Comment 2: A typo has been found in the application narrative regarding tank S-2111. The Solution Resinates - Resinate Adduct Tank (S-2111) should have been repurposed to CTO product storage tank S-2111. Instead, it was requested that this tank be repurposed to CTO product storage tank S-2351 which was already requested when the Solution Resinates EU01 tank was converted the to CTO product storage tank S-2351. Kraton requests that S-2111 be added to the list of insignificant activities as a CTO product storage tank S-2111. This will increase the number of CTO product storage tanks to 2 (S-2351 and S-2111).

EPD Response: The change has been made as requested.

Comment 3: Draft Permit Condition 5.2.6. indicates that "the pressure drop monitor is certified by the manufacturer to have an accuracy of +5% over the operating range." The accuracy should be ±5% which is identical to the current permit 2821-051-0148-V-04-0.

EPD Response: The typographical error has been corrected. It was also corrected for Conditions 5.2.2.a and 5.2.7.

Comment 4: Draft Permit Condition 5.2.8. indicates that "the pressure drop monitor is certified by the manufacturer to have an accuracy of +5% over the operating range." Same as point 3, the accuracy should be ±5% and identical to the current permit.

EPD Response: The typographical error has been corrected.

Comment 5: On July 21, 2023 the EPA removed the Title V Emergency Affirmative Defense Provisions (40 CFR 70.6(g)) from state operating permit programs and Federal Operating Permit Program. The draft Permit Condition 8.13 still includes this defense and should be removed because 40 CFR 70.6(g) no longer exists. The citation for the Georgia emergency provision (391-3-1-.03(10)(d)(7)) is an incorporation of 40 CFR 70.6(g) by reference. To our knowledge, Georgia does not currently have an emergency affirmative defense provision.

EPD Response: The comment is noted. The EPD is not changing the Title V template at this time.