NORTH CAROLINA DIVISION OF AIR QUALITY

Application Review

Issue Date: February 6, 2025

Region: Asheville Regional Office
County: Burke
NC Facility ID: 1200076
Inspector's Name: Michael Koerschner
Date of Last Inspection: 09/27/2023
Compliance Code: 3 / Compliance - inspection

Facility Data

Applicant (Facility's Name): Saft America Inc.

Facility Address:
Saft America Inc.
313 Crescent Street
Valdese, NC 28690

SIC: 3692 / Primary Batteries, Dry and Wet
NAICS: 335912 / Primary Battery Manufacturing

Facility Classification: Before: Title V **After:** Title V
Fee Classification: Before: Title V **After:** Title V

Permit Applicability (this application only)

SIP: 02D .0521
NSPS: Subpart JJJJ
NESHAP: Subpart ZZZZ, JJJJJJ
PSD: NA
PSD Avoidance: 02Q .0317 (for 02D .0530)
NC Toxics: NA
112(r): 02D .2100
Other: 02D .1806; NCGS 143-215.108

Contact Data

Facility Contact	Authorized Contact	Technical Contact
Steve Jenkins EHS Manager (828) 874-4111 313 Crescent Street Valdese, NC 28690	Tessa Collinson General Manager (828) 874-4111 313 Crescent Street NE Valdese, NC 28690	Steve Jenkins EHS Manager (828) 874-4111 313 Crescent Street Valdese, NC 28690

Application Data

Application Number: 1200076.23A
Date Received: 09/29/2023
Application Type: Renewal
Application Schedule: TV-Renewal

Existing Permit Data
Existing Permit Number: 04595/T17
Existing Permit Issue Date: 05/15/2020
Existing Permit Expiration Date: 03/31/2024

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2022	0.0600	0.4600	----56.19	0.3800	---	0.2272	0.2106 [Glycol Ethers, Unlisted - Spec
2021	0.0700	0.4300	42.55	0.3600	---	0.4135	0.3946 [Glycol Ethers, Unlisted - Spec]
2020	0.0700	0.4400	47.95	0.3700	---	0.2138	0.1950 [Glycol Ethers, Unlisted - Spec]
2019	0.1300	0.5000	64.98	0.4200	---	0.1840	0.1502 [Glycol Ethers, Unlisted - Spec]
2018	0.1400	0.5300	79.58	0.4500	---	0.2962	0.2629 [Glycol Ethers, Unlisted - Spec]

Review Engineer: Eric L. Crump, P.E.

Review Engineer's Signature: **Date:** February 6, 2025

Comments / Recommendations:
Issue 04595/T18
Permit Issue Date: February 6, 2025
Permit Expiration Date: January 30, 2030

1. Purpose of Application

Saft America Inc. (hereinafter referred to as Saft) is a battery manufacturing plant located in Valdese, Burke County, North Carolina. The facility currently operates under Title V Permit No. 04595T17 with an expiration date of March 31, 2024. Saft has applied for renewal of their Title V air quality permit. The renewal application was received on September 29, 2023, or at least six months prior to the expiration date as required by General Condition 3.K of the current permit. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

2. Facility Description

Saft designs and manufactures high-tech battery systems for industrial applications, including space, aeronautics, telecom, transportation, and defense. The Valdese facility primarily manufactures lithium sulfur dioxide batteries. The manufactured battery has carbon/aluminum cathode; a lithium metal anode; and an electrolyte comprised of sulfur dioxide, lithium bromide, and acetonitrile. The facility currently operates one shift, eight hours per day, five days per week, and employs 200-250 people.

3. Application Chronology

April 1, 2019	DAQ issues Permit No. 04595T16 to Saft as a Title V renewal.
May 20, 2020	DAQ issues Permit No. 04595T17 to Saft as a minor modification (Application No. 1200076.18A) to remove a packed-bed caustic wet scrubber (CD-04) and a pilot line vented to the permitted scrubber (I-2), and to add a 22 kW propane fueled emergency generator (I-13).
September 29, 2023	DAQ receives Application No. 1200076.23 from Saft for a Title V permit renewal.
August 1, 2024	DAQ sends email to Saft with a screening questionnaire regarding the presence, use, and emissions of emerging contaminants from the Saft facility.
August 12, 2024	DAQ receives responses to the emerging contaminants screening questionnaire sent to Saft.
September 26, 2024	DAQ sends email asking Saft to state whether any amounts of the hazardous air pollutant 1-bromopropane (1-BP) are emitted from the facility, and if so, to please submit emission estimates of 1-BP to DAQ.
October 4, 2024	DAQ receives email from Saft declaring that to the best of their knowledge, Saft does not use or emit any 1-BP.
November 15, 2024	Draft permit and review sent for DAQ supervisory review.
November 28, 2024	DAQ supervisor provides comments on draft permit and review.
December 6, 2024	DAQ sends draft permit to Saft, Stationary Source Compliance Branch (SSCB) and Asheville Regional Office (ARO) for review and comment.
December 20, 2024	Permit renewal notice published, 30-day public notice and comment period begins, and 45-day EPA comment period begins.
January 7, 2025	Saft sends email to DAQ requesting how a change be made to the draft permit since the permit had gone to public notice and comment.
January 9, 2025	DAQ advises Saft that they need to submit the requested change as a public comment under the public comment procedures.

January 10, 2025 Saft submits a public comment to DAQ, formally requesting a change in verbiage for Section 2.2 A.1.b of the draft permit (see discussion in Section 15 of the review).

January 19, 2025 30-day public notice and comment period ends.

February 3, 2025 45-day EPA comment period ends. DAQ discusses public comment received with Saft and drafts response and permit revision.

4. Changes to Permit and Title V Equipment Editor (TVEE) Discussion

The following table summarizes changes made to the current Saft permit with this permit renewal.

Page No.	Section	Description of Changes
Cover and throughout	---	• Updated all dates and permit revision numbers • Updated all limits/standards summary tables to current standard format
Insignificant Activities List	Attachment	Moved to Section 3 of permit
2	Table of Contents	• Changed Section 3 from "General Conditions" to "Insignificant Activities per 15A NCAC 02Q .0503(8)" • Added new Section 4, "General Conditions"
3	List of Acronyms	Relocated here (formerly last page of permit)
4	1	Modified description of source SO2TANK
5	2.1 A 2.1 A.2	Revised listing of source ES-03 and control device CD-03 Moved 15A NCAC 02D .1806 stipulation to Section 2.2 A.2. Renumbered Section 2.1 A.3 accordingly.
6	2.1 A.3 2.1 B.2	Now Section 2.1 A.2. Updated to current format for permit stipulations. Moved 15A NCAC 02D .1806 to Section 2.2 A.2.
7	2.2 A 2.2 A.1.b 2.2 A.1.b.ii	Revised listing of source ES-03 and control device CD-03 • Revised initial and final paragraphs for clarity • Deleted instructions on how to compute $V_{discharged}$ prior to installation of flow meter/totalizer • Moved mention of recording daily volume of IPA/water effluent from Section 2.2. A.1.c to this paragraph. Added reference to alternative procedure for determining IPA emissions Removed methodology for determining $V_{discharged}$ and $Wt\%_{IPA}$ from variable definition, and relocated to new subparagraphs iii and iv

Page No.	Section	Description of Changes
8	2.2 A.1.c	Added new alternative to the emission calculation procedure in Section 2.2 A.1.b
	2.2.A.1.e	Added new requirement for Permittee to record in logbook the emissions calculation scenario under which it is operating
	2.2 A.1.f	Revised reporting requirement from quarterly to semiannually. Reports must now include monthly VOC emissions for the previous 17 months (instead of the previous 14 months).
	2.2 A.2	Moved 15A 02D .1806 stipulation here
9	2.2 A.3	Added new requirement to disclose information related to emissions of fluorinated chemicals.
10	2.3 A.1.b	• Added additional reference to 15A NCAC 02Q .0508(f) • Revised due date for next RMP
	2.3 A.1.c	Revised due date for next RMP
	2.3 A.1.d	Added requirement to indicate RMP requirements have been met in annual compliance certifications
11	3	• Section 3 is now "Insignificant Activities per 15A NCAC 02Q .0503(8)" • Noted that source I-4 is subject to GACT JJJJJJ • Changed source I-14 from MACT ZZZZ to GACT ZZZZ
12 - 20	4	Updated General Conditions to Version 8.0 dated July 10, 2024

The following changes were made to the TVEE with this renewal.

Source ID No.	Current TVEE Description	Revised TVEE Description
SO2TANK	One sulfur dioxide storage tank (5,000 gallon storage capacity, subject to 112r)	One sulfur dioxide storage tank (5,000 gallon storage capacity
I-4	One natural gas-fired boiler (3.4 million Btu per hour heat input)	One natural gas-fired boiler (3.4 million Btu per hour heat input)[GACT JJJJJJ]
I-13	One propane-fired emergency generator (22kW)[MACT ZZZZ, NSPS JJJJ]	One propane-fired emergency generator (22kW)[GACT ZZZZ, NSPS JJJJ]

5. Description of Changes and Estimated Emissions

Saft has not reported the addition, removal, or modification of any sources at the facility in this permit renewal application No. 1200076.23A. No changes in potential emissions are expected.

6. Regulatory Review

Saft is subject to the following air quality regulations, in addition to the requirements in the General Conditions:

15A NCAC 02D .0521, Control of Visible Emissions: This rule establishes opacity limits for visible emissions generated by fuel burning operations and industrial processes where visible emissions are expected to occur (except during startups, shutdowns, and malfunctions approved according to procedures in 15A NCAC 02D .0535, Excess Emissions Reporting and Malfunctions). The rule establishes opacity limits for visible emissions from sources based on the date the sources were manufactured. The following sources at Saft are subject to this rule:

- Emissions associated with the Li-SO_2 cathode paste manufacturing process (ES-01) such as the room exhaust, blotter paper emissions, and vacuum system emissions
- Li-SO_2 cathode paste drying oven (ES-02)
- Sulfur dioxide storage area, the electrolyte mixing area, and the battery filling line (ES-03)
- Cell destruct room (ID No. ES-04)
- Li-MnO2 battery production line (ES-05)

Because these sources were manufactured after July 1, 1971, this rule limits them to 20 percent opacity averaged over a six-minute period. The six-minute averaging periods may not exceed 20 percent more than once in any hour, and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. Because these sources are unlikely to exceed these limits—in fact, only ES-03 has emission controls (a packed-bed caustic wet scrubber (CD-03)—no monitoring, recordkeeping, or reporting is required for particulate emissions from these sources. This permit renewal does not affect this status. Continued compliance is expected.

15A NCAC 02D .1806, Control and Prohibition of Odorous Emissions. Under this state-enforceable only requirement, a Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary. Saft is subject to this requirement. To date, DAQ has not found it necessary to require that Saft develop and submit an odor management plan under this rule. This permit renewal does not affect this status. Continued compliance is expected.

15A NCAC 02Q .0317, Avoidance Conditions (for 15A NCAC 02D .0530, Prevention of Significant Deterioration). See Section 9 of this review.

NC General Statute 143-215.108, Control of sources of air pollution; permits required.

A 2002 permit review (Gautam Patnaik, Permit No. 04595T12, 1/22/2002) states the following, with regard to this General Statute and emission sources at Saft facility:

> Gaseous emissions from the sulfur dioxide storage area, the electrolyte mixing area, and the battery filling line (ID No. ES-03) will be controlled by a wet scrubber (ID No. CD-03), and the gaseous emissions from the cell destruct room (ID No. ES-04) will be controlled by a wet scrubber (ID No. CD-04). These scrubbers will be a good control device for the control of sulfur dioxide emissions. These control devices are now incorporated in the new permit under the above regulation which states that a permit is required to "build, erect, use or operate any equipment which may result in the emission of air contaminants."
>
> i) PACKED TOWER GAS ABSORBER REQUIREMENTS
> The current permit has inspection, maintenance, and recordkeeping requirements for the scrubbers. It was the decision of this [Permitting] Section, that, since the scrubbers are not required to ensure compliance to any 15A NCAC 02D regulations, no inspection, maintenance, recordkeeping, or reporting requirements are needed for these control devices.

In 2008 (see review for Permit No. 04595T14, M. Smithwick, 4/09/2008), the sulfur dioxide storage tank (SO2TANK) was listed as being controlled by the packed-bed caustic wet scrubber (ID No. CD-03).

In 2020 (see review for Permit No. 04595T17, B. Bland, 5/15/2020), wet scrubber CD-04 was removed from the facility, leaving only sources E-03 and SO2TANK as being subject to regulation under this General Statute.

The permit requirements for these sources do not include any specified emissions limit. Gaseous emissions from these sources are required to be controlled by one packed-bed caustic wet scrubber (CD-03). As explained above, no monitoring, recordkeeping, or reporting is required.

This permit renewal does not affect this status. Continued compliance is expected.

7. National Emission Standards for Hazardous Air Pollutants (NESHAPS): Maximum and/or Generally Achievable Control Technology (MACT/GACT)

The Saft facility is an area source as defined in 40 CFR Part 63.2 with regard to hazardous air pollutants (HAPs) because it has been determined that the facility does not have the potential to emit 10 tons per year or more of any single HAP or 25 tons per year or more of any combination of HAPs. The following NESHAP apply to sources at Saft:

40 CFR Part 63, Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources. The 3.4 MMBtu/hr heat input natural gas-fired boiler (I-4) is the only boiler at the Saft facility. Per 40 CFR 63.11195(e), gas-fired boilers are not subject to any requirements in this Subpart. Furthermore, this boiler is classified as an insignificant activity under 15A NCAC 02Q .0503(8) because its emissions would not violate any applicable emissions standard, its potential uncontrolled criteria pollutant emissions are no more than five tons per year and its potential uncontrolled HAP emissions are below 1000 pounds per year. For these reasons, no conditions are included in the permit for this source.

It is noted that classifying an emission source or activity as insignificant does not mean it is exempted from any applicable requirement, or that the Permittee is exempted from demonstrating compliance with any applicable requirement. The Permittee is required to have documentation— including calculations, if necessary—available at the facility at all times that demonstrates that an emission source or activity is insignificant.

40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The propane-fired 22 kilowatt emergency generator I-13 is subject to this NESHAP. Like boiler I-4 above, this generator is classified as an insignificant activity under 15A NCAC 02Q .0503(8), therefore, no conditions are included in the permit for this source.

This permit renewal does not affect the status of the Saft facility with regard to NESHAPS applicability.

As discussed in Section 16 of this review, Saft is aware that 1-bromopropane (1-BP) has been added to the list of HAPs subject to regulation under the Clean Air Act. Saft has informed DAQ that to the best of their knowledge, the facility does not use or emit 1-BP.

8. New Source Performance Standards (NSPS)

Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. The propane-fired 22 kilowatt emergency generator I-13 is subject to Subpart JJJJ. As discussed above in Section 7 of this review, this generator is classified as an insignificant activity under 15A NCAC 02Q .0503(8), therefore, no conditions are included in the permit for this source. This permit renewal does not affect this status.

9. New Source Review (NSR)/Prevention of Significant Deterioration (PSD)

Saft could potentially be a major source for PSD due to its potential to emit 250 ton/yr or more of VOC. To avoid the applicability of PSD major source requirements under 15A NCAC 02D .0530, Saft has accepted an avoidance condition under 15A NCAC 02D .0317 in their permit. This condition limits facility-wide VOC emissions to less than 250 tons per consecutive 12-month period. Each month, Saft is required to calculate and record the sum of VOC emissions from VOC-containing material consumed that month plus the isopropyl alcohol (IPA) emissions that month from the cathode paste manufacturing process **(**ES-01).

- VOC emissions from VOC-containing material shall be determined by multiplying the total amount of each type of VOC-containing material consumed during the month by the VOC content of the material.
- IPA emissions from cathode paste manufacturing operation shall be determined using the following equation:

$$IPA_{emitted} = \left(VIPA_{in} \times \frac{6.58\ lb\ IPA}{gallon\ IPA}\right) - \left(V_{discharged} \times \frac{Wt\%_{IPA}}{100} \times Density\right)$$

Where:

$IPA_{emitted}$ = monthly mass of IPA emitted to the atmosphere, in pounds,

$VIPA_{in}$ = monthly volume, in gallons, of IPA used in the process,

density = density of the effluent, lb/gallon, (8.014 lb/gallon for a 25% IPA/water solution by weight),

$V_{discharged}$ = total monthly volume, in gallons, of effluent (IPA water mixture) discharged from the surge tank to the sewer. to be determined using a flow meter/totalizer. Saft shall determine and record the total volume discharged from the surge tank to the sewer each day during the month. The flow meter/totalizer shall be calibrated yearly per the manufacturer's recommended procedures unless a more frequent calibration period is specified by the manufacturer. If the total volume discharged during a day cannot be determined due to failure of the flow meter/totalizer or other reasons, then the volume for that day shall be the lesser of: (1) the lowest daily volume discharged during the prior three calendar months, or (2) 200 gallons.

$Wt\%_{IPA}$ = weight percent of IPA in the effluent discharged to the sewer. The weight percent shall be the average percent by weight for the calendar month. Saft shall collect equal volume aliquots from the surge tank prior to discharging the contents of the tank to the sewer. Each of these aliquots shall be composited to create a monthly composite, and the IPA concentration of the monthly composite determined on a percent by weight basis using SW-846-8015 or an equivalent method upon approval by the DAQ, and the density shall be determined based on the specific gravity of the mixture as determined by Method 2710-F (Standard Methods for the Examination of Water and Waste Water) or its equivalent.

Semiannual reporting of monitoring and recordkeeping activities (including the above calculations) is required.

This permit renewal does not affect this status. The Saft facility has reported 50.49 tons of VOC were emitted in their 2023 emissions inventory submittal. As shown in the table in the header page of this review, plantwide VOC emissions from 2018 through 2022 have consistently been well below the 250 ton/yr threshold. Continued compliance is expected.

10. Risk Management Plan (RMP) Requirements

40 CFR Part 68 requires stationary sources storing more than threshold quantities of regulated substances to develop an RMP in accordance with Section 112(r) of the Clean Air Act. The RMP lists the potential effects of a chemical accident at the facility, steps the facility is taking to prevent an accident, and emergency response procedures to be followed if an accident should occur.

Saft is subject to Section 112(r) of the Clean Air Act requirements because it stores sulfur dioxide (anhydrous), a regulated substance, in quantities (45,000 pounds) above the threshold (5,000 pounds) in a sulfur dioxide storage tank (ID No. SO2TANK, 5,000 gallon capacity). Per DAQ's 112(r) Program Coordinator, the facility's RMP plan was most recently updated on July 19, 2022. Saft will be due for another plan submission by July 18, 2027.

On August 26, 2022, DAQ issued a Notice of Violation (NOV) to Saft for failure to comply with several elements of the Risk Management Program under 15A NCAC 02D .2100 with regard to storage and safe use of sulfur dioxide (i.e., certification of operating procedures, refresher training, compliance audits, and emergency response coordination). On September 12, 2022, DAQ received a response from Saft, stating they have taken measures to ensure that future compliance measures will be performed in a timely manner and properly documented.

Future compliance will be assessed through facility compliance inspections.

11. Compliance Assurance Monitoring (CAM)

The CAM rule (15A NCAC 02D .0614) applies to each pollutant specific emissions unit located at a facility required to obtain a Title V, Part 70 or 71 permit if it meets all of the following criteria:

- It is subject to an emission limitation or standard, and
- It uses a control device to achieve compliance, and
- It has potential pre-control emissions that equal or exceed the major source threshold (i.e., either 100 tons per year (tpy) for criteria pollutants, 10 tpy of any individual HAP, or 25 tpy of any combination of HAP).

The following emission limitations or standards are exempted from the CAM rule:

- NSPS or NESHAP standards proposed after November 15, 1990;
- Stratospheric ozone protection requirements under Title VI of the Clean Air Act
- Acid rain program requirements;
- Emission limitations or standards or other requirements that apply solely under an approved emissions trading program approved pursuant to of Subchapters 02D and 02Q of Chapter 15A and incorporated in a permit issued under 15A NCAC 02Q .0500;
- An emissions cap that is approved pursuant to Subchapters 02D and 02Q of Chapter 15A and incorporated in a permit issued under 15A NCAC 02Q .0500;
- Emission limitations or standards for which a permit issued under 15A NCAC 02Q .0500 specifies a continuous compliance determination method, as defined in 40 CFR 64.1—unless the applicable compliance method includes an assumed control device emission reduction factor that could be affected by the actual operation and maintenance of the control device; and
- Certain municipally owned utility units, as defined in 40 CFR 72.2.

Please note that the emission unit is not exempted from the CAM rule if nonexempt emission limitations or standards (e.g., a state rule or an older NSPS emission limits) apply to the emissions unit.

The sources listed below are the only sources at the Saft facility with emission control devices.

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-03	Sulfur dioxide storage area, the electrolyte mixing area, and the battery filling line	CD-03	One packed-bed caustic wet scrubber (230 gallons per minute liquid injection rate)
SO2TANK	One sulfur dioxide storage tank (5,000 gallon storage capacity; subject to 112r)		

As discussed earlier in Section 6 of this review, the caustic wet scrubber (CD-03) is not required in order for these sources to meet any prescribed Federal, State, or local emissions limit. For this reason, DAQ has determined that CAM is not applicable to these sources. This permit renewal does not affect the facility's status with respect to CAM. Continued compliance is expected.

12. Facility-wide Air Toxics Review

To date, the Saft facility has not triggered an air toxics review, and currently has no limits or requirements with regard to NC toxic air pollutants. This permit renewal does not affect this status.

13. Facility Emissions Review

The table in the header page of this review summarizes emissions Saft has reported in annual emissions inventories from 2018 through 2022 after application of required emission controls. Since the last permit renewal, there have been no changes in the facility that resulted in significant increases in potential to emit.

14. Compliance History and Status

The following chronology dates from when the Saft permit was last renewed on April 1, 2019.

February 7, 2020	Michael Koerschner, Ashville Regional Office (ARO) conducts facility compliance inspection. Facility appeared to be operating in compliance with all permit requirements.
July 14, 2021	Michael Koerschner, ARO conducts facility compliance inspection. Facility appeared to be operating in compliance with all permit requirements.
August 26, 2022	DAQ issues NOV to Saft for failure to comply with several elements of the Risk Management Program (RMP) under 15A NCAC 02D .2100 with regard to storage and safe use of sulfur dioxide (i.e, certification of operating procedures, refresher training, compliance audits, and emergency response coordination).
September 12, 2022	DAQ receives response from Saft regarding the NOV, stating they have taken measures to ensure that future compliance measures will be performed in a timely manner and properly documented.
September 27, 2022	Michael Koerschner, ARO conducts facility compliance inspection. Facility appeared to be operating in compliance with all permit requirements.
September 27, 2023	Michael Koerschner and Allison Glass, ARO conduct facility compliance inspection. Facility appeared to be operating in compliance with all permit requirements.
September 26, 2024	Mike Reid, DAQ 112(r) Program Coordinator, confirms via email that Saft updated their RMP on July 19, 2022; it is not due for another resubmission until July 18, 2027.

In summary, Saft appears to have complied with all permit requirements since the last renewal, with the exception of RMP requirements. The facility has taken steps to ensure future compliance with these requirements. Future compliance will be assessed through facility compliance inspections.

15. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15A NCAC 02Q .0518(b), the U.S. EPA will have a 45-day review period. In general, as agreed by DAQ and EPA Region 4, EPA's 45-day review period will run concurrently with the 30-day comment period unless advised otherwise. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit, and each final permit shall be provided to EPA. Also, pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice is provided to the public under 02Q .0521 above.

South Carolina and Tennessee are affected states within 50 miles of the Saft facility. The Mecklenburg County Department of Environmental Protection is an affected local program within 50 miles of the facility. Regardless of distance, all potentially affected states and local air programs will be notified in accordance with DAQ policy.

Notice of the DRAFT Title V Permit to Affected States ran from December 20, 2024, to January 19, 2025. No comments were received from Affected States or Local Programs.

Public Notice of the DRAFT Title V Permit ran from December 20, 2024, to January 19, 2025. One public comment was received—from Saft America, Inc. (the Permittee). The comment is summarized below with DAQ's response.

Comment: Saft requested to include an option in the PSD avoidance condition for monitoring compliance with the 250 tons per consecutive 12-month period VOC limit. Currently, monthly isopropyl alcohol (IPA) emissions from the cathode paste manufacturing operation **(ID No. ES-01)** are calculated using a formula specified in Section 2.2 A.1 b.ii of the permit. This calculation requires measuring effluent discharged from a surge into the sewer, and collecting samples from the surge tank to calculate a monthly composite IPA concentration. Saft would like to include an option to determine monthly IPA emissions by simply recording the total monthly mass of isopropyl alcohol (IPA) used.

DAQ Response: DAQ concurs with the change to the PSD avoidance condition proposed by Saft, since the proposed emission calculation option provides a more conservative emission estimate (i.e., more protective of the environment) than the method already in the permit. DAQ has revised the permit language in Section 2.2 A.1 of the permit accordingly (see changes table in Section 4 of this application review). In addition, DAQ will include a requirement in the permit that Saft record in a logbook the emissions calculation scenario under which it is operating at any given time.

The U.S. EPA's 45-day review period ran concurrent with the 30-day Public Notice, from December 20, 2024, to February 3, 2025. No comments were received from EPA or U.S. EPA Region 4 regarding the DRAFT Title V Permit.

16. Other Regulatory Considerations

The following items were not required in Permit Application No. 1200076.23A:

- Professional Engineer's seal
- Zoning consistency determination
- Permit fee.

Removal of Emergency Affirmative Defense Provisions. EPA has promulgated a rule (88 FR 47029, July 21, 2023), with an effective date of August 21, 2023, removing the emergency affirmative defense provisions in operating permits programs, codified in both 40 CFR 70.6(g) and 71.6(g). EPA has concluded that these provisions are inconsistent with the EPA's current interpretation of the enforcement structure of the CAA, in light of prior court decisions[1]. Moreover, per EPA, the removal of these provisions is also consistent with other recent EPA actions involving affirmative defenses[2] and will harmonize the EPA's treatment of affirmative defenses across different CAA programs.

As a consequence of this EPA action to remove these provisions from 40 CFR 70.6(g), states and local agencies that have adopted similar affirmative defense provisions in their Part 70 operating permit programs will need to revise their Part 70 programs (regulations) to remove these provisions. In addition, individual operating permits that contain Title V affirmative defenses based on 40 CFR 70.6(g) or similar state regulations will need to be revised.

NCDAQ has not adopted these discretionary affirmative defense provisions in its Title V regulations (15A NCAC 02Q .0500). Instead, DAQ has chosen to include them directly in individual Title V permits as General Condition J.

[1] NRDC v. EPA, 749 F.3d 1055 (D.C. Cir. 2014).

[2] In newly issued and revised New Source Performance Standards (NSPS), emission guidelines for existing sources, and NESHAP regulations, the EPA has either omitted new affirmative defense provisions or removed existing affirmative defense provisions. See, e.g., National Emission Standards for Hazardous Air Pollutants for the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants; Final Rule, 80 FR 44771 (July 27, 2015); National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters; Final Rule, 80 FR 72789 (November 20, 2015); Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units; Final Rule, 81 FR 40956 (June 23, 2016).

Per EPA, DAQ is required to promptly remove such impermissible provisions, as stated above, from individual Title V permits, after August 21, 2023, through normal course of permit issuance. This has been done with this permit renewal.

Addition to List of Hazardous Air Pollutants. As of February 4, 2022, the U.S. EPA has amended the list of hazardous air pollutants (HAP) under the CAA to add 1-bromopropane (1-BP) in response to public petitions previously granted by the EPA (87 FR 393, January 5, 2022). Since the Saft permit was last renewed April 1, 2019, DAQ has asked the Permittee to report whether any amounts of 1-BP are emitted from the facility, and if so, to submit emission estimates of 1-BP to the DAQ. Saft has replied in an email dated October 4, 2024, that to the best of their knowledge, Saft does not use or emit 1-BP.

Per- and polyfluoroalkyl substances (PFAS) and Other Emerging Contaminants: Saft has responded to a DAQ emerging contaminants screening questionnaire. In their response received on August 12, 2024, Saft reported the following:

- Saft uses a product called "PTFE Fluoroplastic Dispersion DISP 30," which is 60% solids polytetrafluoroethylene (PTFE, CAS No. 9002-84-0) in an emulsion. Purchasing records indicate that Saft purchased 9660 pounds of PTFE Emulsion 2023, which is used as a binder in the production of the cathodes used in their Li-SO_2 and Li-MnO_2 batteries.
- Saft states that PTFE is most likely used in other items that are part of the process, such as assembly equipment with PTFE wear blocks, or PTFE piping/tubing. Maintenance items used on site such as Teflon™ tape, pipe dope used in pipe fittings, and lubricants are also known to have PTFE.
- Freon™ is also used in heating, venting, air conditioning, and process chilling units.
- Saft also generates solid waste that contains PTFE, such as waste cathode and blotter paper. The waste cathode material is disposed of as non-hazardous waste. Batteries that are defective or used for quality assurance/quality control are sent to be recycled.

A requirement to disclose information relating to emissions of fluorinated chemicals (15A NCAC 02Q. 0308(a); 15A NCAC 02Q.0309(b)) has been added to the permit with this renewal. Saft will have an ongoing duty to disclose the presence of materials containing fluorinated chemicals at the facility that have the potential to result in the emission of fluorinated chemicals to the environment. Such disclosures shall be submitted in writing to the Regional Office Supervisor within thirty days of becoming aware of such information, unless Saft has already disclosed such information to DAQ. The disclosure shall describe the identity, quantity, and use of such material to the extent known. DAQ may require the permittee to conduct analysis or testing of fluorinated chemical emissions as necessary to properly evaluate emissions sources at the facility. As used in this condition, the term "fluorinated chemicals" includes but is not limited to per- and polyfluoroalkyl substances (PFAS).

17. Recommendations

DAQ has reviewed the permit application(s) for Saft America, Inc. located in Valdese, Burke County to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. DAQ recommends the issuance of Air Permit No. 04595T18 upon completion of the public participation and EPA review periods.