NORTH CAROLINA DIVISION OF AIR QUALITY

Application Review

Issue Date:

Region: Fayetteville Regional Office
County: Robeson
NC Facility ID: 7800159
Inspector's Name: Taijah Hamil
Date of Last Inspection: 06/07/2023
Compliance Code: 3 / Compliance - inspection

Facility Data

Applicant (Facility's Name): Campbell Soup Supply Company

Facility Address:
Campbell Soup Supply Company
2120 Highway 71 North
Maxton, NC 28364

SIC: 2032 / Canned Specialties
NAICS: 311422 / Specialty Canning

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

Permit Applicability (this application only)

SIP: 02D .0503, .0515, .0516, .0521, .0524, .0614, .1111
NSPS: Subpart Db
NESHAP: GACT JJJJJJ
PSD: NA
PSD Avoidance: 02Q .0317
NC Toxics: NA
112(r): 02D. 2100
Other: 02D .1806

Contact Data

Facility Contact	Authorized Contact	Technical Contact
Liz Ward Environmental Compliance (910) 844-1202 2120 Highway 71 North Maxton, NC 28364	Mark Rogers Sr. Director of Operations - Maxton (910) 844-1574 2120 Highway 71 North Maxton, NC 28364	Allan Baldwin Power House/Utilities Lead (910) 844-1684 2120 Highway 71 North Maxton, NC 28364

Application Data

Application Number: 7800159.23A
Date Received: 02/21/2023
Application Type: Renewal
Application Schedule: TV-Renewal

Existing Permit Data
Existing Permit Number: 04090/T31
Existing Permit Issue Date: 10/20/2020
Existing Permit Expiration Date: 10/31/2023

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2022	0.2700	58.20	2.30	34.82	0.2400	0.7788	0.7450 [Hexane, n-]
2021	0.2500	57.02	2.24	34.21	0.2200	0.7668	0.7335 [Hexane, n-]
2020	0.2500	58.30	2.35	34.93	0.2300	0.7815	0.7476 [Hexane, n-]
2019	1.11	56.97	2.27	34.36	0.2100	0.7627	0.7295 [Hexane, n-]
2018	8.82	54.90	2.13	32.33	0.3700	0.7244	0.6890 [Hexane, n-]

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

Review Engineer's Signature: **Date:**

Comments / Recommendations:
Issue 04090/T32
Permit Issue Date:
Permit Expiration Date:

1. Purpose of Application

The Campbell Soup Supply Company (hereinafter referred to as Campbell) is a food canning plant located in Maxton, Robeson County, North Carolina. The facility currently operates under Title V Permit No. 04090T31 with an expiration date of October 31, 2023. Campbell has applied for renewal of their Title V air quality permit. The renewal application was received on February 21, 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.

Campbell has not reported the addition, removal, or modification of any sources at the facility in permit renewal application 7800159.23A.

2. Facility Description

Campbell produces various soups and broths. Raw ingredients, such as meats, vegetables, oysters, flour, sugar, spices, wine, etc.) are brought to the facility in bulk containers, where they are combined using proprietary formulas and recipes. The blended products are then pumped into various sizes of metal or plastic cans, which are sealed and sent through cookers. The cans are then labeled, packaged, and palletized for shipment. The facility currently operates 24 hours per day (three 8 hour shifts), five days a week.

Campbell is the largest soup cooking facility in the U.S. At full production levels the facility produces seven million cans of soup per day (an average production rate of nearly nine cans of soup per second from each of their eight canning lines). Cans for the operation are produced in the Silgan Container Corporation facility (formerly owned and operated by Campbell), which occupies part of the same building as Campbell.

The facility uses anhydrous ammonia as a refrigerant in their freezer operations, and for cooling the ethylene glycol coolants used in most of the cooling operations throughout the facility.

3. Application Chronology

November 2, 2018	Division of Air Quality (DAQ) issues Permit No. 04090T29 to Campbell as a Title V permit renewal.
December 7, 2018	Division of Air Quality (DAQ) issues Permit No. 04090T30 to Campbell as an administrative amendment, correcting an error in the particulate matter emission limit for boiler No. 7 (ID No. ES-025).
June 30, 2020	DAQ receives permit application No. 7800159.20A from Campbell for a second step permit modification per NCAC 02Q .0501(b)(2). The first step modification had been submitted on May 25, 2017 for boiler replacement (Boiler No. 5 (ES-021) replaced with Boiler No. 7 (ES-25), boiler fuel usage updates (Boiler No. 4 (ES-020) no longer fires No. 6 fuel oil and only fires No. 2 fuel oil during periods of gas curtailment; Boiler No. 6 (ES-22) only fires natural gas), and removal of the PSD avoidance condition for boilers. Air Permit (04090T28) was issued on November 27, 2017 reflecting the first step of this modification.
October 20, 2022	Division of Air Quality (DAQ) issues Permit No. 04090T31 to Campbell as the second step of the permit modification per NCAC 02Q .0501(b)(2).

February 21, 2023	DAQ receives permit renewal application No. 7800159.23A from Campbell.
March 10, 2023	Fayetteville Regional Office (FRO) submits P&O report for renewal application No. 7800159.23A.
January 3, 2024	Draft permit and review sent for DAQ supervisory review.
January 11, 2024	DAQ supervisor provides comments on draft permit and review
January 19, 2024	DAQ sends draft permit to Campbell, Stationary Source Compliance Branch (SSCB) and FRO for review and comment.
January 26, 2024	DAQ receives comments on draft permit from SSCB.
January 29, 2024	DAQ receives comments on draft permit from FRO.
xxx	Permit renewal notice published, 30-day public notice and comment period begins, and 45-day EPA comment period begins.
xxx	30-day public notice and comment period ends.
xxx	45-day EPA comment period ends.

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

The following table summarizes changes made to the current Campbell permit in 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	Moved to this page (formerly on the last page of permit)
4	1	Deleted "GACT JJJJJJ" from source ID No. ES-022 in Emission Source column of table
5	2.1 A	Deleted "See Section 2.2 B" from "Hazardous Air Pollutants" row in limits/standards table
6	2.1 A.4	Moved GACT JJJJJJ requirements for boiler ID No. ES-020 from Section 2.2 B.2 to 2.1 A.4. Also removed reference to boiler ID No. ES-022 from the Subpart JJJJJJ requirements
7	2.1 A.5	Moved avoidance conditions (02Q .0317) for PSD for boiler ID No. ES-020 here
8	2.1 A.5.d.ii 2.1 A.5.e	Added emissions factor for SO_2 emissions from natural gas to equation Added deviations reporting requirement

Page No.	Section	Description of Changes
9	2.1 B	Deleted GACT JJJJJJ from limits/standards summary table
11	2.1 C.4 2.1 C.4.a 2.1 C.4.c	Removed rule citation from section title Added title of 40 CFR Part 60, Subpart Db Changed "one six minutes per hour" to "one six-minute period per hour"
12	2.1 C.4.k	Added noncompliance statement
13	2.1 C.4.m	Deleted "a summary" from first sentence in this paragraph
14	2.1 C.5.e 2.1 C.6.c 2.1 C.6.d	Added deviations reporting requirement Inserted semiannual reporting requirement of monitoring and recordkeeping activities here Moved requirement to notify DAQ when firing fuel oil outside of gas curtailment periods from 2.1 C.6.c to 2.1 C.6.d
15	2.1 D and 2.1 D.1.c	Changed "sock type filter" to "cartridge filter"
16	2.1 D.2.c	Updated section to reflect the most current stipulations for 15A NCAC 02D .0521
17	2.2 A.1 2.2 B	• Corrected rule citation to 02D .2100, Risk Management Program. • Updated section to reflect the most current stipulations for 15A NCAC 02D .2100 • Removed boiler No. 6 (ID No. ES-022) from this section • Moved GACT JJJJJJ requirements to Section 2.1 A.4
18	3	• Section 3 is now "Insignificant Activities per 15A NCAC 02Q .0503(8)" • Added emergency fuel pump engine (IES-1) and removed generator (IES-2) from insignificant activities list
19-26	4	Updated General Conditions to version 7.0 dated August 21, 2023

The following changes have been made to the TVEE:

- Added: ID No. IES-1, One 300 hp emergency diesel-fired fire pump engine [MACT ZZZZ, NSPS IIII]
- Removed: ID No. IES-2, One natural gas/propane-fired emergency generator (60 Hp, 45 kW) [MACT ZZZZ]
- Changed description: ID No. ES-022, One natural gas-fired boiler No. 6 with Low-NOx burners when firing natural gas (126 million Btu per hour maximum heat input capacity) [GACT JJJJJJ]. The "[GACT JJJJJJ]" has been removed from the description of this source.

5. Description of Changes and Estimated Emissions

Campbell has not reported the addition, removal, or modification of any sources at the facility. During the most recent facility inspection by FRO (June 7, 2023), the following changes to the facility were noted:

- Natural gas/propane-fired emergency generator (IES-2) has been removed from the facility, and should be removed from the permit. As a former insignificant activity this removal should have no significant impact on overall emissions at the Campbell facility.
- The 300 hp Clarke diesel-fired emergency fuel pump engine (IES-1) was never removed from the facility and is therefore being added back to the permit, and will be subject to both 40 CFR Part 60 Subpart IIII (a new source performance standard) and 40 CFR 63 Part Subpart ZZZZ (a national emission standard for hazardous air pollutants). Having been previously determined to be an insignificant activity, this should have no significant impact on overall emissions at the Campbell facility.

Both of the above were apparently past errors that are being corrected with this permit renewal. In addition, the inspectors noted:

- Boiler No. 6 (ES-022) should no longer be subject to 40 CFR Part 63 Subpart JJJJJJ, since it only fires natural gas. Since this boiler fires only natural gas, it is specifically exempt from Subpart JJJJJJ per 40 CFR 63.11195(e). As discussed above in Section 5 of this review, this correction will be made in this renewal. This correction does not affect emissions at the Campbell facility.

Continued compliance is expected.

6. Regulatory Review

Campbell is subject to the following state regulations, in addition to the requirements in the permit General Conditions:

15A NCAC 02D .0503, Particulates from Fuel Burning Indirect Heat Exchangers. This rule applies to particulate matter (PM) emissions from the combustion of fuel in indirect heat exchangers, such as boilers, that are discharged from any stack or chimney into the atmosphere. The rule provides the following equation for determining the allowable emissions limit as a function of maximum heat input:

$$E = 1.090 \times Q^{-0.2594}$$

Where:

E = allowable emissions limit for particulate matter in pounds per million Btu (lb/MMBtu); and

Q = maximum heat input in million Btu per hour (MMBtu/hr).

The maximum heat input is the total heat content of all fuels and is the sum of the maximum heat inputs from all fuel burning indirect heat exchangers at a plant site which are in operation, under construction, or permitted when determining the allowable emission limit for each fuel burning indirect heat exchanger.

The three boilers at Campbell are subject to this rule:

- Boiler No. 4, a natural gas/No. 2 fuel oil-fired boiler (202 MMBtu/hr heat input capacity) (ES-020). *No. 2 fuel oil will be used for natural gas curtailment.*
- Boiler No. 6, a natural gas-fired boiler (126 MMBtu/hr heat input capacity (ES-022)
- Boiler No. 7, a natural gas/No. 2 fuel oil-fired boiler (182 MMBtu/hr heat input capacity) (ES-025). *No. 2 fuel oil will be used for natural gas curtailment.*

Because these boilers became operational at the plant at different times, the basis for calculating the limit for newer boilers is based on the heat input of all existing and new boilers onsite at the time a newer boiler is installed, which results in different limits for different units. Once the PM emission limit is established for a given unit, the limit remains in effect, regardless of whether additional boilers or indirect heat exchangers are added to the facility or taken out of service. As a result, the PM emission limit for older boilers may be based in part on the heat input of boilers or heat exchangers that once operated at the facility, but no longer exist.

The history of boiler installation/operation/removal and derived emission limits for the boilers at the Campbell facility is summarized in the following table.

Boiler No.	**ID No.**	**Year Installed**	**Boilers Removed from Site**	**Boiler Heat Input** (MMBtu per /hr)	**Total Heat Input for Facility, Q**	**PM Emission Limit for New Boiler(s) $E = 1.090Q^{-0.2594}$** (lb/MMBtu)
1, 2, & 3		1981	---	51, 51, and 51	3 × 51 = 153	0.30
4	ES-020	1987	---	202	153 + 202 = 355	0.28
5 & 6	ES-021, ES-022	1991	1, 2, and 3	127 and 126	202 + 127 + 126 = 455	0.25
7	ES-025	2019	5	182	202 +126 + 182 = 510	0.20
Notes: Installation dates for Boilers No. 1 through 6 obtained from permit review for Air Permit No. 04090T20 (F. Langenbach, 10/06/2004, Application No. 7800159.04B) Installation date for Boiler No. 7 obtained from permit review for Air Permit No. 04090T28 (Y. Puram, 11/27/2017, Application No.7800159.17C)						

Because these three boilers all fire relatively clean burning fuels (all three boilers fire natural gas, and Boilers No. 4 (ES-020) and 7 (ES-025) also fire No. 2 fuel oil—which is low in sulfur—during periods of natural gas curtailment), no monitoring, recordkeeping, or reporting is required for these boilers as PM emissions should be minimal. This permit renewal does not affect this status. Continued compliance is expected.

15A NCAC 02D .0515, Particulates from Miscellaneous Industrial Processes. This rule addresses emissions of PM from stacks, vents, or outlets for any industrial process for which no other particulate emission control standards apply. For such processes, the allowable emission rates shall not exceed the level calculated using one of the following equations, as appropriate for the process rate of the source:

$E = 4.10(P)^{-0.67}$ for process rates less than or equal to 30 tons per hour (ton/hr)
$E = 55.0(P)^{0.11} - 40$ for process rates greater than 30 ton/hr

Where:
E = allowable emissions limit for particulate matter in pounds per hour (lb/hr), and
P = process rate in ton/hr (i.e., the total weight per hour of all materials introduced into a specific process that may cause any emission of particulate matter. Liquid and gaseous fuels and combustion air are not included in the process weight).

The nine grain and bulk flour storage silos (ES-007 through ES-015) and the hydrated lime silo (ES-23) are subject to this rule. Campbell is required to control PM emissions from these sources with sock-type filters (CD-002 through CD-010) for the grain and flour silos, and a bin vent filter (CD-

012) for the lime silo. The manufacturer's recommendations for inspection and maintenance (I&M) must be followed, but at a minimum Campbell must inspect the system ductwork and material collection unit monthly for leaks, and perform an annual internal inspection of the filters' structural integrity. The results of I&M must be recorded in a logbook onsite. The results of any filter maintenance must be submitted to DAQ within 30 days of a written request. Semiannual summary reports of all monitoring and recordkeeping activities are required.

15A NCAC 02D .0516, Sulfur Dioxide Emissions from Combustion Sources. Under this rule, emissions of sulfur dioxide (SO_2) from any source of combustion discharged from any vent, stack, or chimney shall not exceed 2.3 pounds of SO_2 per million British thermal units (MMBtu) input. The three boilers at Campbell—No. 4 (ES-020), No. 6 (ES-022), and No.7 (ES-025)—are subject to this rule. Because these boilers fire fuels that are low in sulfur (natural gas for all three boilers, plus No. 2 fuel oil for Boiler Nos. 4 and 7 during periods of natural gas curtailment), no monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from these sources.

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.

Boilers No. 4 (ES-020), No. 6 (ES-022), and No. 7 (ES-025), the storage silos (ES-007 through ES-015), and the hydrated lime silo (ES-023) are subject to this rule. 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 the boilers fire fuels that are low in sulfur and ash (natural gas for all three boilers, plus No. 2 fuel oil for Boilers Nos. 4 and 7 during periods of natural gas curtailment), no monitoring, recordkeeping, or reporting is required for visible emissions from these sources. For each of the silos, the following monitoring, recordkeeping, and reporting requirements apply:

- Daily observations of the emission points from these sources for visible emissions above normal.
- If emissions are observed to be above normal, Campbell shall:
    - Correct the above-normal emissions as soon as practicable and within the monitoring period, or
    - Demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes are below the 20 percent opacity limit.
- Monitoring results shall be maintained in a logbook onsite, to include the date/time of each action, the results of each observation/test, along with any corrective actions taken, and the results of any corrective actions performed.
- Semiannual reporting of monitoring and recordkeeping activities is required.

15A NCAC 02D .0524, New Source Performance Standards. See Section 8 of this review.

15A NCAC 02D .0530, Prevention of Significant Deterioration. See Section 9 of this review.

15A NCAC 02D .0614: Compliance Assurance Monitoring [40 CFR 64]. See Section 11 of this review.

15A NCAC 02D .1100, Control of Toxic Air Pollutants. See Section 12 of this review.

15A NCAC 02D .1111, Maximum Achievable Control Technology. See Section 7 of this review.

15A NCAC 02D .1806, Control and Prohibition of Odorous Emissions (State Enforceable Only). This rule, which applies facility-wide and is state-enforceable only, provides for the control and prohibition of objectionable odorous emissions. The rule requires that Campbell implement management practices or install and operate odor control equipment sufficient to prevent odorous emissions from causing or contributing to objectionable odors beyond the facility's boundary. This permit renewal does not affect this status. Continued compliance is expected.

15A NCAC 02Q .0317, Avoidance Conditions. Under this rule, the owner or operator of a facility may request that DAQ place terms and conditions in that facility's air permit to avoid the applicability of certain regulatory requirements. DAQ may require monitoring, recordkeeping, and reporting as needed to provide assurance that the avoidance conditions are being met. The Campbell permit has avoidance conditions for the following rules:

- 15A NCAC 02D .0530, Prevention of Significant Deterioration. See Section 9 of this review.
- 15A NCAC 02D .1111, Maximum Achievable Control Technology. See Section 7 of this review.

15A NCAC 02Q .0711, Emission Rates Requiring a Permit. See Section 12 of this review.

This permit renewal does not affect the status of this facility with regard to these regulations. Continued compliance is expected.

Note: The permit has been updated to reflect the most current stipulations for all applicable regulations.

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

Campbell 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. A single GACT standard applies to the three boilers at the Campbell facility: 40 CFR Part 63 Subpart JJJJJJ, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources. The applicability of Subpart JJJJJJ is discussed for each of the three boilers below:

- Boiler No. 4 (ES-020) remains subject to Subpart JJJJJJ. Under this subpart Campbell is required to follow the general duty clause (40 CFR 63.11205(a)–operation and maintenance of the affected sources, associated emissions controls, and monitoring equipment consistent with safety and good air pollution control practices) for this boiler. In addition, biennial tune-ups and submittal of a biennial compliance report is required. Campbell must maintain copies of required notifications, documentation of conformance with work/management practices and emission reduction measures, tune-up records, fuel usage records, and malfunction records. Records must be maintained for five years.

- Boiler No. 6 (ES-022) had been subject to Subpart JJJJJJ in the current permit. However, since this boiler fires only natural gas, it is specifically exempt from Subpart JJJJJ per 40 CFR 63.11195(e). As discussed above in Section 5 of this review, this correction will be made in this renewal.

- Boiler No. 7 (ES-025), which fires natural gas (and No. 2 fuel oil at times of natural gas curtailment), is subject to this GACT standard. However, as requested by Campbell, this boiler has accepted a permit condition under 15A NCAC 02Q .0317, Avoidance Conditions, to avoid the applicability of Subpart JJJJJJ to this boiler. Because Campbell has agreed to the following restrictions in their permit, Boiler No. 7 is exempted from Subpart JJJJJJ:

    - Boiler No. 7 shall burn liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel.
    - Periodic testing, maintenance, or operator training on this boiler while using liquid fuel shall not exceed a combined total of 48 hours during any calendar year.
    - If the boiler fires liquid fuel outside of gas curtailment periods specified above, this boiler shall no longer be exempt from Subpart JJJJJJ.
        - Per 40 CFR 62.11225(g), Campbell must submit a notice to the DAQ within 30 days of the change.
        - Per 40 CFR 63.11210(i), Campbell must demonstrate compliance with Subpart JJJJJJ within 180 days of the effective date of the fuel switch.

This permit renewal does not affect the status of this facility with regard to MACT/GACT. Continued compliance is expected.

8. New Source Performance Standards (NSPS)

Boiler No. 7 (ES-025), which fires natural gas (and No. 2 fuel oil during periods of natural gas curtailment), is subject to 40 CFR Part 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units. This NSPS applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)).

The following emission limits apply to Boiler No. 7:

- Nitrogen oxide (NO_X) emissions shall not exceed 0.2 pounds per million Btu heat input. Compliance with this limit is determined on a 30-day rolling average basis [40 CFR 60.44b(i)]
- Visible emissions, when firing No. 2 fuel oil only, shall not be more than 20 percent opacity when averaged over a six-minute period, except for one six-minutes per hour. In no event shall the six-minute average exceed 27 percent opacity. This opacity standard applies at all times, except during periods of startup, shutdown or malfunction. [40 CFR 60.43b(f) and (g)]

Campbell is required to install, calibrate, maintain, and operate a continuous emissions monitoring (CEM) system for measuring NO_X and oxygen (or carbon dioxide) emissions discharged to the atmosphere from the boiler No. 7, and record the output of the system. [40 CFR 60.48b(b) through (f)]. Records shall be maintained for two years as specified in 40 CFR 60.49b(g) and (o). Campbell must also submit a semiannual excess emissions and continuous monitoring system performance report and/or a summary report.

As an alternative to using a CEM system to demonstrate compliance, Campbell may choose to monitor boiler operating conditions in accordance with Section 2.1 C.4.h above and 40 CFR 60.48(g)(2). If this option is chosen, they must submit a plan that identifies operating conditions to be monitored per 40 CFR 60.48(g)(2) and the records to be maintained per 40CFR 60.49b(g). This plan shall be submitted to the DAQ for approval within 360 days of the initial startup of the boiler. If the plan is approved, Campbell shall maintain records of predicted nitrogen oxide emission rates and monitored operating conditions, including boiler load, identified in the plan.

Boilers No. 4 (ES-020) and No. 6 (ES-022) are not subject to Subpart Db. While both boilers were installed at Campbell after June 19, 1994, they were manufactured in 1976 and 1971, respectively (see M. Revels/FRO inspection report dated October 9, 2002), so Subpart Db does not apply to these boilers.

This permit renewal does not affect the status of the Campbell facility with regard to NSPS. Continued compliance is expected.

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

The Campbell facility is located in Robeson County, which is in attainment of the national ambient air quality standards; therefore NSR is not required for this facility.

The facility is currently classified as a major source under PSD. Campbell has elected to have two of its three existing boilers—No. 4 (ES-020) and No. 7 (ES-025)—subject to PSD avoidance conditions under 15A NCAC 02D .0317. The table below summarizes these PSD requirements:

Boiler	Regulated Pollutant	Limits/Standards	Formula for calculating emissions*
No. 4/ES-020	Sulfur dioxide (SO_2)	Less than 250 tons discharged per 12-month rolling period	$m_{SO2} = 0.6(Q_{NG}) + 142S(Q_{No.2})$
	NO_X	Less than 250 tons discharged per 12-month rolling period	$m_{NOx} = 81(Q_{NG}) + 42(Q_{No.2})$
No. 7/ES-025	NO_X	Less than 40 tons discharged per 12-month rolling period	$m_{NOx} = 41(Q_{NG}) + 17(Q_{No.2})$
*Where:	m_{NOx} = NO_X emissions (pounds) Q_{NG} = natural gas burned (1,000,000 cubic feet) $Q_{No.2}$ = No. 2 fuel oil burned (1,000 gallons) m_{SO2} = SO_2 emissions (pounds) S = fuel oil sulfur (weight percent)		

Semiannual reporting is required, and shall include:

- monthly NO_X emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months; and
- monthly quantities of natural gas and No. 2 fuel oil burned for the previous 17 months.

As discussed in a previous permit review (Permit No. 04090T31, R. Simpson, 10/20/2020), Boiler No. 6 (ES-022) does not require a PSD avoidance limit. This boiler no longer fires fuel oil, and these fuels were removed from the permit. Because Boiler No. 6 is only permitted to utilize natural gas, its emission rate for SO_2 and NOx are well below the PSD thresholds.

The permit renewal does not affect the status of Campbell regarding NSR/PSD. 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 a 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.

Campbell is subject to Section 112(r) of the Clean Air Act and is required to comply with all applicable requirements in 15A NCAC 02D .2100, "Risk Management Program," in accordance with 40 CFR Part 68 for having a regulated substance—anhydrous ammonia—above a threshold quantity (10,000 pounds). The facility last submitted an RMP plan on April 25, 2023[1]. The next plan submittal will therefore be due on April 25, 2028.

This permit renewal does not affect the 112(r) status of the facility. Continued compliance is expected.

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.

[1] Per email from K. Osterman, Campbell Soup Supply Co. to E. Crump, NCDAQ, September 7, 2023.

Excluding the insignificant activities, the following emission sources at the Campbell facility remain for consideration of CAM applicability.

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-007 through ES-015	Nine grain and bulk flour storage silos	CD-002 through CD-010	Nine cartridge type filters (360 square feet of filter area each)
ES-020 **GACT JJJJJJ**	Natural gas/No. 2 fuel oil-fired boiler No. 4 equipped with low-NOx burners when firing natural gas (202 MMBtu/hr heat input capacity)	No control device	No control device
ES-022	One natural gas-fired boiler No. 6 with Low-NOx burners when firing natural gas (126 MMBtu/hr heat input capacity)	No control device	No control device
ES-023	One hydrated lime silo	CD-012	One bin vent filter (250 square feet of filter area)
ES-025* **NSPS Db**	Natural gas/No. 2 fuel oil-fired boiler No. 7 with low-NOx burners when firing natural gas (182 MMBtu/hr heat input capacity)	No control device	No control device

- By virtue of being subject to either a NSPS or NESHAP standard proposed after November 15, 1990, and because they do not require emission controls to meet emission standards, Boilers No. 4 and 7 (ES-020 and ES-025) are not subject to CAM requirements.
- As established in a previous permit review (M. Cuilla, Permit No. 04090T24, May 16, 2008), CAM does not apply to the nine grain and bulk flour storage silos (ES-007 through ES-015), or the hydrated lime silo (ES-23). Since the conditions and characteristics for these sources have remained unchanged since this determination was made, they remain not subject to CAM requirements.
- Boiler No. 6 (ES-022), which until now had been subject to NESHAP requirements, will no longer be subject to NESHAP as a result of this renewal (see Section 7 of this review). However, this boiler does not require emission controls in order to achieve compliance with emission standards. Therefore, this boiler is exempt from CAM requirements.

This permit renewal does not affect the facility's status with respect to CAM. Continued compliance is expected.

12. Facility-wide Air Toxics Review

Before the Campbell permit was renewed in 2013, it contained an air toxics requirement to comply with a 15A NCAC 02D .1100 modeled emission rate for formaldehyde of 0.05 pounds per hour (lb/hr) for the boilers operating on site at that time (ID Nos. ES-020, ES-021, and ES-022). Campbell was required to maintain records of the boiler information as necessary to determine that this limit was not exceeded.

As discussed in the permit review for that renewal (M. Cuella, Permit No. 04090T27, 01/09/2013), this toxic limit was established at a time when Campbell owned and operated a can manufacturing facility on the same site. That combined facility was subject to a modeled rate of 0.085 lb/hr. When Silgan Can

purchased the can operations in 1999, it took the portion of Campbell's air toxics limit associated with those can manufacturing emission sources (0.035 lb/hr). The remaining portion (0.05 lb/hr) was attributed to the three boilers at Campbell (ES-020, ES-021, and ES-022). The modeled rate was established before the current exemption for combustion sources in 15A NCAC 02Q .07029(a)(18); thus the boilers were included in the original modeling demonstration.

During the 2013 permit renewal, Campbell requested removal of the toxics limit. To do so would typically require performance of a new modeling demonstration at the original outside property boundary—including what is now Silgan Can—based on the potential to emit from the boilers. Using the "doughnut rule"[2], Campbell would not have to take into account any formaldehyde emissions from Silgan Can's portion of the facility for air toxics modeling.

However, Session Law 2012-91 stipulates that NC air toxics requirements do not apply to affected sources subject to 40 CFR Part 63. The boilers (ES-020, ES-021, and ES-022) were each subject to GACT Subpart JJJJJJ and the reciprocating internal combustion engines onsite at the time (IES-1, IES-2, and IES-13)—which also contributed to facility-wide total formaldehyde emissions—were each subject to the GACT Subpart ZZZZ. Campbell then amended their Title V renewal application to request removal of the formaldehyde emission limit on October 17, 2013 based on the application of the Session Law. As documented in the permit review, NC DAQ performed an analysis under G.S. 143-215.107(a)(5)(b) to determine if the removal of the limitation under 15A NCAC 02D .1100 restricting the emissions of a toxic air pollutant would present an unacceptable risk to human health. The analysis showed that maximum facility-wide formaldehyde emissions based on the current operating scenario of the facility represented approximately 20% of the limit. Therefore, it was determined that the air toxics limit could be removed without presenting a health risk.

Since this analysis was conducted back in 2013, boiler ES-021 has been replaced by boiler ES-025, IES-2 (60 hp natural gas/propane-fired emergency generator) has been removed, and IES-13 (200 hp diesel-fired electric generator) has been replaced with IES-15 (460 hp natural gas-fired emergency generator). Of the three boilers on site at Campbell, only boiler ES-020 is currently subject to a 40 CFR Part 63 standard. All existing RICE units at the facility—listed as insignificant activities—are currently subject to 40 CFR Part 63 standards. Given the changes at the facility, it is worth reviewing the current status of air toxics emissions.

The following table presents the facility-wide formaldehyde emissions reported in the last five annual Campbell emission inventories, and compares them to the former air toxics formaldehyde emissions limit of 0.05 lb/hr.

Year	Facility-wide Formaldehyde Emissions, lb/yr	Facility-wide Formaldehyde Emissions, lb/hr*	Percent of Former Toxics Limit
2022	62.06	0.00708	14.1
2021	61.11	0.00698	14.0
2020	62.3	0.00711	14.2
2019	60.858	0.00695	13.9
2018	59.8735	0.00683	13.7

* - calculated based on the facility being operational 24 hours per day, 365 days per year

[2] Memorandum from L.S. Butler, DAQ. "Lease Arrangement Modeling Procedures for 15A NCAC 2D .1100", January 21, 1999.

As shown, maximum facility-wide formaldehyde emissions based on the current operating scenario of the facility are well below 20% of the limit, suggesting that the changes to the facility have not increased the health risk from air toxics at the Campbell facility.

13. Facility Emissions Review

The table in the header page of this review summarizes emissions Campbell has reported in the annual emissions inventories for 2019-2022 after application of required emission controls. Emissions for criteria pollutants and hazardous air pollutants have been relatively consistent during this time period.

14. Compliance History and Status

The following chronology dates from when the Campbell permit was last renewed on November 2, 2018.

February 12, 2019	Greg Reeves, Fayetteville Regional Office (FRO), conducts facility compliance inspection. The facility appeared to be operating in compliance with all permit requirements.
March 14, 2019	Gregory Reeves and Evangelyn Lowery-Jacobs, FRO, conduct compliance inspection for the Risk Management Program for Campbell. Deficiencies identified include corrosion that had not been addressed, failure to maintain piping markers, and failure to conduct staff training related to a process change.
March 29, 2019	FRO issues Notice of Deficiency (NOD) to Campbell for deficiencies of the requirements of 15A NCAC 02D .2100, Risk Management Program identified during the March 14, 2019 inspection.
December 30, 2019	Jeff Cole, FRO, observes source test at Campbell conducted to determine visible emissions (VE) opacity from Boiler No. 7 (ID No. ES-025) to demonstrate compliance with 40 CFR 60, Subpart Db. The VE observations appeared to be conducted in accordance with EPA Method 9.
January 15, 2020	Evangelyn Lowery-Jacobs, FRO conducts facility compliance inspection. The facility appeared to be operating in compliance with all permit requirements.
February 5, 2020	FRO issues NOD to Campbell for the following permit deviations: (1) failure to submit a notice of performance testing to DAQ 30 days prior to source testing, and (2) failure to submit performance testing results to DAQ within 180 days after initial startup of Boiler No. 7 (ID No. ES-025).
February 14, 2020	Campbell responds to NOD acknowledging deviations and explaining actions taken to prevent future deviations.
February 20, 2020	FRO issues letter to Campbell approving of December 30, 2021 test result findings.
May 5, 2020	DAQ Technical Services Chief issues Notice of Violation (NOV) to Campbell for failure to conduct a cylinder gas audit on the NO_X/O_2 continuous emissions monitoring system (CEMS) on Boiler No. 7 during the fourth quarter of 2019, as required by Sections 2.1 C.4.i, j, and m of Air Permit No. 04090T30.

June 11, 2020	Evangelyn Lowery-Jacobs, FRO conducts facility compliance inspection. The facility appeared to be operating in compliance with all permit requirements.
October 29, 2020	DAQ Technical Services Chief issues Notice of Violation (NOV) to Campbell for an excessive amount of monitor downtime during the second quarter of 2020, indicative of improper operation and maintenance (O&M). This was a violation of Sections 2.1.C.4.a and i, and General Condition F of Air Quality Permit No. 04090T30.
August 25, 2021	Evangelyn Lowery-Jacobs, FRO conducts facility compliance inspection. The facility appeared to be operating in compliance with all permit requirements.
March 21. 2022	DAQ Technical Services Chief issues NOV to Campbell for excessive amounts of monitor downtime during the third and fourth quarters of 2021, indicative of improper O&M. This was a violation of Sections 2.1.C.4.a and i of Air Quality Permit No. 04090T31. The NOV also serves as a Notice of Recommendation for Enforcement (NRE).
April 19, 2022	Campbell responds to NOV/NRE, acknowledging deficiencies, and outlining short and long-term countermeasures to avoid further violations.
May 31, 2022	DAQ Director issues notice of civil penalty (File No DAQ 2022-016) assessed against Campbell for a total of $4,000, plus an additional $458 for investigative costs.
June 20, 2022	DAQ acknowledges receipt of $4,458 from Campbell for payment of civil penalty (File No DAQ 2022-016)
June 7, 2023	Taijah Hamil, Jeffrey Cole, and Krishonda Cornelius of FRO conduct facility compliance inspection. The facility appeared to be operating in compliance with all permit requirements.

In summary, over the past five years, Campbell has had several instances in which the CMS was not fully operational, occurring frequently enough that a civil penalty was warranted. No similar incidents have been observed since the NOV/NRE was issued in April 2022. Compliance will continue to be assessed during inspections and monitoring of required reports.

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 concurrent 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 is an affected state within 50 miles of the facility. There are no affected local programs within 50 miles of the facility.

Notice of the DRAFT Title V Permit to Affected States ran from XXXX, 2024, to XXXX, 2024. ***Insert discussion of any comments received from Affected States or Local Programs.***

Public Notice of the DRAFT Title V Permit ran from XXXX, 2024, to XXXX, 2024. ***Insert discussion of any public comments received.***

The U.S. EPA's 45-day review period ran concurrent with the 30-day Public Notice, from XXXX, 2024, to XXXX, 2024. ***Insert discussion of any comments received from EPA and 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. 7800159.23A:

- 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[3]. Moreover, per EPA, the removal of these provisions is also consistent with other recent EPA actions involving affirmative defenses[4] 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.

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

[4] 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.

17. Recommendations

DAQ has reviewed the permit application for Campbell Soup Supply Company located in Maxton, Robeson 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. 04090T32 upon completion of the public participation and EPA review periods.