

ROY COOPER

Governor

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Secretary

MICHAEL ABRACZINSKAS

Director



NORTH CAROLINA
Environmental Quality

XX

Mr. Donovan Owens
General Manager
Smithfield Fresh Meats Corp. – Tar Heel
15855 Highway 87 West
Tar Heel, North Carolina 28392

SUBJECT: Air Quality Permit No. 07221T23
Facility ID: 0900055
Smithfield Fresh Meats Corp. – Tar Heel
Tar Heel, North Carolina
Bladen County
Fee Class: Title V
PSD Class: Major

Dear Mr. Owens:

In accordance with your completed Air Quality Permit Application for a renewal of Title V permit received October 19, 2018, we are forwarding herewith Air Quality Permit No. 07221T23 to Smithfield Fresh Meats Corp., 15855 Highway 87 West, Tar Heel, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official, it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.



North Carolina Department of Environmental Quality | Division of Air Quality
217 West Jones Street | 1641 Mail Service Center | Raleigh, North Carolina 27699-1641
919.707.8400

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215.108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Bladen County has triggered increment tracking under PSD for PM10 and SO₂. However, this permit renewal does not affect this status.

This Air Quality Permit shall be effective from ***(Enter Permit Issuance Date)*** until ***(Enter Permit Expiration Date)***, is nontransferable to future owners and operators and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Alice M. Wessner at telephone (919) 707-8452 or by email at alice.wessner@ncdenr.gov.

Sincerely yours,

Mark J. Cuilla, EIT, CPM, Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Michael Sparks, EPA Region 4 (permit and review)
Fayetteville Regional Office
Central Files
Connie Horne (cover letter only)

ATTACHMENT to Permit No. 07221T22

Insignificant Activities per 15A NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description
IBML-1	Blood meal truck load out bay controlled by a three-sided, roofed enclosure
IBML-2	Bone meal truck load out bay controlled by a complete two-sided, one partial sided, roofed enclosure
ILD	Natural gas-fired laundry dryer (150,000 Btu per hour)
IGO-1	Natural gas-fired garland oven (119,000 Btu per hour)
IGO-2	Natural gas-fired garland oven (65,000 Btu per hour)
IGC	Natural gas-fired garland cooker (84,500 Btu per hour)
ICO	Natural gas-fired convection oven (160,000 Btu per hour)
ISC	Natural gas-fired steam cooker (200,000 Btu per hour)
ICDS	Chlorine dioxide generation and delivery system
ITANK	Storage tank for fuel oil and/or animal fat storage
IMT-1	10,000-gallon methanol storage tank
IMT-2	10,000-gallon methanol storage tank
IES-37 ²	Plant Refrigeration System
IES-FP MACT ZZZZ	Emergency diesel fire pump engine (Cummins, 240 Hp, 179 kW)
IES-GEN1 MACT ZZZZ NSPS Subpart IIII	Diesel-fired electric emergency generator (Caterpillar, 201 hp, 150 kW) – backup generation for the new Distribution center engine room ventilation fans
IES-GEN2 MACT ZZZZ NSPS Subpart IIII	Diesel-fired electric emergency generator (Caterpillar, 201 hp, 150 kW) – backup generation for high lift pumps from the 2M gallon storage tanks – potable water system

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the Permittee is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 “Control of Toxic Air Pollutants” or 02Q .0711 “Emission Rates Requiring a Permit.”
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled “Specific Permit Conditions Regulatory Guide.” The link to this site is as follows:
<http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>.

Summary of Changes to Permit

The following changes were made to the Smithfield Fresh Meats Corp. - Tarheel, Air Permit No. 07221T22:

Page No.	Section	Description of Changes
Cover letter	Cover letter	Updated permit revision numbers, dates, and acting Section Chief's name
Cover letter attachment	Insignificant Activities list	Updated footnotes to insignificant activities table Added IES-37 and reference to footnote that source is subject to air toxic emission limits Added three new insignificant activities ID Nos. IES-FP, IES-GEN1 and IES-GEN2
Permit Cover Page	Permit	Changed permit revision numbers and dates
6	1	Moved ID. No. ES-37 (plant refrigeration system) to insignificant activities list from Emission Sources and Control Devices table as ID. No. IES-37 Updated footnote in Emission Sources and Control Devices table
7	2.1	Added AOS and POS reference in Limits and Standards table Added Condition 2.1 A.1 Renumbered remaining section.
7-22	2.1	Added emission sources and control devices ID numbers throughout Updated permit language
9	2.1 A.4	Updated 15A NCAC 02D .0524 NSPS language
9	2.1 A.5	Deleted 2.1 A.5 Added and rewrote condition and added as 2.1 A.1 (see above) Renumbered remaining section
10-13	2.1 A.6	Updated 15A NCAC 02Q .0317 Avoidance Conditions for 40 CFR 63 6J language (POS) Updated 15 NCAC 02D .1111 MACT (AOS)
14-19	2.1 B.3	Updated 15A NCAC 02D .1111 40 CFR 63 4Z language
22	2.1 D	Changed reference from ID No. ES-37 to ID No. IES-37
23, 24	2.2 A.1	Updated 15A NCAC 02Q .0317 Avoidance Conditions for 15A 02D .0530 (Nitrogen Oxides) to current language Added additional testing language Condition 2.2 A.1.b and renumbered remaining section.
24	2.2 A.2	Updated 15A NCAC 02Q .0317 Avoidance Conditions for 15A 02D .0530 (Sulfur Dioxide) to current language
26	2.2 B.1	Added table of control devices and pressure ranges to Condition 2.2 B.1.f.i
26	2.2 C.1	Updated condition to current permit language and referenced dates to Condition 2.2 C.1 and 2.2 C.2.c.
27-35	Section 3	Replaced General Conditions with current language Version 5.5



State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
07221T23	07221T22	XXXX	XXXX

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: **Smithfield Fresh Meats Corp. – Tar Heel**

Facility ID: **0900055**

Facility Site Location: **15855 Highway 87 West**
City, County, State, Zip: **Tar Heel, Bladen County, North Carolina 28392**

Mailing Address: **15855 Highway 87 West**
City, State, Zip: **Tar Heel, North Carolina 28392**

Application Number: **0900055.18B**
Complete Application Date: **October 19, 2018**

Primary SIC Code: **2048, 2011**
Division of Air Quality,
Regional Office Address: **Fayetteville Regional Office**
225 Green Street, Suite 714
Fayetteville, North Carolina. 28301

Permit issued this the XX day of XXXXX, 2021

Mark J. Cuilla, EIT, CPM, Chief, Air Permitting Section
By Authority of the Environmental Management Commission

Table of Contents

SECTION 1: PERMITTED EMISSION SOURCE (S) AND ASSOCIATED
AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

- 2.1 Emission Source(s) Specific Limitations and Conditions (Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)
- 2.2 Multiple Emission Source(s) Specific Limitations and Conditions (Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

SECTION 1- PERMITTED EMISSION SOURCE (S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE (S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
7, 8, 10, and 24	ES-1 NSPS, Subpart Dc	One (1) biogas/natural gas-fired boiler (29.29 million Btu per hour heat input rate) <i>(Boiler is also a control device for the wastewater treatment plant, ES-BPS – See ID No. CD-ES-1)</i>	NA	NA
7, 8, 9, 10, 11, and 24	ES-2* NSPS, Subpart Dc GACT JJJJJJ	One (1) biogas/natural gas/No. 2/No. 4/No. 5/No. 6 fuel oil-fired boiler (29.29 million Btu per hour heat input rate) <i>(Boiler is also a control device for the wastewater treatment plant, ES-BPS – See ID No. CD-ES-2)</i>	NA	NA
7, 8, 9, 10, 11, and 24	ES-3* NSPS, Subpart Dc GACT JJJJJJ	One (1) natural gas/animal fat/biogas/No. 2/No. 4/No. 5/No. 6 fuel oil-fired boilers (29.29 million Btu per hour heat input rate) <i>(Boiler is also a control device for the wastewater treatment plant, ES-BPS – See ID No. CD-ES-3)</i>	NA	NA
7, 8, 9, 10, 11, and 24	ES-4, ES-5, ES-6, ES-7, ES-8* NSPS, Subpart Dc GACT JJJJJJ	Five (5) natural gas/animal fat/No. 2/No. 4/No. 5/No. 6 fuel oil-fired boilers (29.29 million Btu per hour heat input rate each)	NA	NA

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
14 and 15	ES-BPS	Wastewater treatment plant/biogas production system	CD-11 -or- CD-ES-1 -or- CD-ES-2 -or- CD-ES-3	One (1) biogas flare (40 million Btu per hour heat input rate) -or- One (1) biogas/natural gas-fired boiler (29.29 million Btu per hour heat input rate) -or- One (1) biogas/natural gas/No. 2/No. 4/No. 5/No. 6 fuel oil-fired (29.29 million Btu per hour heat input rate) -or- One (1) natural gas/animal fat/biogas/No. 2/No. 4/No. 5/No. 6 fuel oil-fired boiler (29.29 million Btu per hour heat input rate each)
14, 15 and 24	ES-9, ES-10, ES-15, ES-16	Four (4) natural gas-fired hair singers (16 million Btu per hour heat input rate each)	NA	NA
14, 15 and 24	ES-17, ES-18, ES-19, ES-20, ES-21, ES-22, ES-23, ES-24 (South Bldg.) GACT ZZZZ	Eight (8) No. 2 fuel oil-fired electric generators (14.74 million Btu per hour heat rate each)	C4-ES17, C4-ES18, C4-ES19, C4-ES20, C4-ES21, C4-ES22, C4-ES23, C4-ES24	Eight (8) CO emissions reduction systems, one each per generator consisting of: Two-way oxidation catalyst -or- Combination silencer/two-way oxidation catalyst

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
14, 15 and 24	ES-26, ES-27, ES-28, ES-29, ES-30, ES-31, ES-32, ES-33, ES-34, ES-35, ES-36 (North Bldg.) GACT ZZZZ	Eleven (11) No. 2 fuel oil-fired electric generators (14.74 million Btu per hour heat rate each)	C5-ES26, C5-ES27, C5-ES28, C5-ES29, C5-ES30, C5-ES31, C5-ES32, C5-ES33, C5-ES34, C5-ES35, C5-ES36	Eleven (11) CO emissions reduction systems, one each per generator consisting of: Two-way oxidation catalyst -or- Combination silencer/two-way oxidation catalyst
20, 21 and 22	ES-12a.2 ES-12a.3	Two (2) rendering cookers with primary entrainment traps (44,000 pounds of water per hour, each)	C1C.1 C1C.2 C1C.3 C1C.4 C1C.5 C1V C1P	One condensables removal system (sized to condense a maximum of 148,000 pounds per hour of water vapor) consisting of four (4) air-cooled condensers (each with a capacity of 30,000 pounds per hour of water vapor) that can run with or without one (1) shell and tube heat exchanger in series with One (1) fixed throat venturi scrubber (pressure range of 12 to 40 pounds per square inch) utilizing process wastewater or freshwater in series with One (1) packed tower wet scrubber (pressure range of 12 to 20 pounds per square inch) utilizing chlorine dioxide
20, 21 and 22	ES-12b	One (1) rendering plant hair hydrolyzer	C1V C1P	One (1) fixed throat venturi scrubber (pressure range of 12 to 40 pounds per square inch) utilizing process wastewater or freshwater in series with One (1) packed tower wet scrubber (pressure range of 12 to 20 pounds per square inch) utilizing chlorine dioxide

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
12, 21 and 22	ES-12c	Low intensity odorous rendering plant operations including meal presses and grease centrifuges	C1V C1P	One (1) fixed throat venturi scrubber (pressure range of 12 to 40 pounds per square inch) utilizing process wastewater or freshwater in series with One (1) packed tower wet scrubber (pressure range of 12 to 20 pounds per square inch) utilizing chlorine dioxide
20, 21, 22, 23, 24 and 26	ES-13	One (1) natural gas-fired ring blood dryer (7.5 million Btu per hour maximum heat input rate)	C2V C2P	One (1) fixed throat venturi scrubber (pressure range of 10 to 40 pounds per square inch) utilizing process wastewater or freshwater in series with One (1) packed tower wet scrubber (pressure range of 7 to 20 pounds per square inch) utilizing chlorine dioxide
20, 21, 22, 23 and 26	ES-14	Rendering plant building room ventilation and ventilation of two wastewater pretreatment decanter centrifuges	C3	One (1) packed tower wet scrubber (pressure range of 10 to 40 pounds per square inch) utilizing chlorine dioxide

* Boilers (ID Nos. ES-2 through ES-8) are subject to GACT Subpart JJJJJ if they are operated in a manner other than as gas-fired boilers as defined in 40 CFR 63.11237 and as specified in Section 2.1 A.1.

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1 Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

A. One (1) biogas/natural gas-fired boiler (ID No. ES-1/CD-ES-1)

One (1) biogas/natural gas/No. 2/No. 4/No. 5/No. 6 fuel oil-fired boiler (ID No. ES-2/CD-ES-2)

One (1) natural gas/animal fat/biogas/No. 2/No. 4/No. 5/No. 6 fuel oil-fired boiler (ID No. ES-3)

Five (5) natural gas/animal fat/No. 2/No. 4/No. 5/No. 6 fuel oil-fired boilers (ID Nos. ES-4, ES-5, ES-6, ES-7, ES-8)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.26 pounds per million Btu heat input	15A NCAC 02D .0503
Sulfur dioxide	Biogas, Natural Gas, and Animal Fat Firing 2.3 pounds per million Btu heat	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Sulfur dioxide	0.5 percent sulfur content fuel oil	15A NCAC 02D .0524 (40 CFR Part 60, Subpart Dc)
Sulfur dioxide Nitrogen oxides	See Section 2.2 A	15A NCAC 02Q .0317 (Avoidance of PSD)
Hazardous Air Pollutants	(ID Nos. ES-2 through ES-8, when operating as gas-fired boilers as defined in 40 CFR 63.11237 in POS only) Fire liquid fuel and/or animal fat only during periods of gas curtailment, gas supply interruptions, startups, or for periodic testing.	15A NCAC 02Q .0317 (Avoidance of GACT Subpart JJJJJ)
Hazardous Air Pollutants	(ID Nos. ES-2 through ES-8, when operating as boilers in the oil subcategory as defined in 40 CFR 63.11237 in AOS only) Work Practice Standards	15A NCAC 02D .1111 (40 CFR Part 63, Subpart JJJJJ)

POS= Primary Operating Scenario AOS=Alternative Operating Scenario

1. ALTERNATIVE OPERATING SCENARIOS [15A NCAC 02Q .0508(j)]

The Permittee, contemporaneously with making a change from one alternative operating scenario to another, shall record in a logbook (written or electronic format) the scenario under which it is operating. [15A NCAC 02Q .0508(p)]

- a. The Primary Operating Scenario (POS) is defined as the boilers (**ID No. ES-2 through ES-8**) firing fuels other than natural gas, and/or biogas and/or No. 2 fuel oil.
- b. The Alternative Operating Scenario (AOS) is defined as the boilers (**ID Nos. ES-2 through ES-8**) firing only natural gas, biogas, and/or No. 2 fuel oil, alone.
- c. The Permittee shall submit a notification to DAQ within 10 days of switching to the Alternative Operating Scenario.

2. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of biogas, natural gas, animal fat and fuel oils that are discharged from these sources (**ID Nos. ES-1 through ES-8**) boilers into the atmosphere shall not exceed 0.26 pounds per million Btu heat input.

Testing [15A NCAC 02Q .0508 (f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of biogas, natural gas, animal fat, or fuel oil in these sources (**ID Nos. ES-1 through ES-8**).

3. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these sources (**ID Nos. ES-1 through ES-8**) while firing biogas, natural gas, and/or animal fat shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508 (f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of biogas, natural gas, and/or animal fat in these sources (**ID Nos. ES-1 through ES-8**).

4. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-1 through ES-8**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not 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.

Testing [15A NCAC 02Q .0508 (f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.4.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for visible emissions while firing of biogas, natural gas, or No. 2 fuel oil in these sources (**ID Nos. ES-1 through ES-8**).

- d. To ensure compliance, once a day the Permittee shall observe the emission points of these sources (**ID Nos. ES-2 through ES-8**) while firing animal fat and/or No. 4/No. 5/No. 6 fuel oil for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. 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 is below the limit given in Section 2.1 A.4.a. above.

The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required daily observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made.

Recordkeeping [15A NCAC 02Q .0508(f)]

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and,
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 A.4.d and e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

5. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524, "New Source Performance Standards (NSPS) as promulgated in 40 CFR 60, Subpart Dc, "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units," including Subpart A "General Provisions."

Emission/Sulfur Content Limitation [15A NCAC 02D .0524]

- b. The maximum sulfur content of any fuel oil received and fired in these sources (**ID Nos. ES-2 through ES-8**) shall not exceed 0.5 percent by weight. These fuel oil sulfur limits apply at all times, including periods of startup, shutdown, and malfunction. Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if sulfur content of any fuel oil fired in these sources exceeds this limitation. [40 CFR 60.42c(d), 40 CFR 60.42c(i)]

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.5.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- d. In addition to any other recordkeeping required by 40 CFR 60.48c or recordkeeping requirements of the EPA, the Permittee shall record and maintain the following records:
 - i. the amounts of No. 2/No. 4/No. 5/No. 6 fuel oil fired in these sources (**ID Nos. ES-2 through ES-8**) during each day; and,
 - ii. the amounts of biogas, natural gas, and animal fat fired in these sources (**ID Nos. ES-1 through ES-8**) during each calendar month.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained. [40 CFR 60.48c(g)(2)]

- e. The Permittee shall maintain records of fuel supplier certifications for each shipment of distillate and/or residual fuel oil received. The fuel supplier certification(s) shall include the following information:
 - i. For distillate fuel oils:
 - A. the name of the oil supplier; and
 - B. a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c.
 - ii. For residual fuel oils:
 - A. the name of the oil supplier;
 - B. the location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;
 - C. the sulfur content of the oil from which the shipment came (or the shipment itself); and
 - D. the method used to determine the sulfur content of the oil.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the sulfur content of fuel oils is not monitored as described above. [40 CFR 60.46c(e), 40 CFR 60.48c(f)(1)-(2)]

Reporting [15A NCAC 02Q .0508(f)]

- f. In addition to any other reporting required by 40 CFR 60.48c or notification requirements of the EPA, the Permittee is required to submit to a written semiannual summary report to DAQ postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and by July 30 of each calendar year for the preceding six-month period between January and June. The summary report shall include the following:
 - i. Calendar dates covered in the reporting period;
 - ii. Fuel supplier certification(s) for each distillate and/or residual fuel oil, as provided in Section 2.1 A.5. e. of this permit;
 - iii. A certified statement signed by the owner or operator that the records of fuel supplier certification(s) submitted represent all of the fuel fired at the affected boilers during the semiannual period; and,
 - iv. All instances of deviations with 15A NCAC 02D .0524 as provided in this permit during the reporting period.

[40 CFR 60.48c(e)(11), 40 CFR 60.48c(j)]

POS – Firing natural gas and/or biogas only in boilers (ID Nos. ES-2 through ES-8) as specified in Section 2.1 A.1.a.

6. 15A NCAC 02Q. 0317: AVOIDANCE CONDITIONS for

15A NCAC 02D .1111, MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

- a. In order to avoid the applicability of 40 CFR 63 Subpart JJJJJ, “Industrial, Commercial, and Institutional Boilers Area Sources,” the Permittee shall operate the existing boilers (**ID Nos. ES-2 through ES-8**) as gas-fired boilers defined in 40 CFR 63.11237. To maintain the exemption from 40 CFR Part 63 Subpart JJJJJ per 40 CFR 63.11195(e), the Permittee shall meet the following:
 - i. Gaseous-fuels are not combined with any solid fuels.
 - ii. The Permittee burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups,

or periodic testing on liquid fuel.

- iii. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.
- b. The Permittee shall maintain records that document the time periods when liquid fuel is fired and the reasons the liquid fuel is fired, as required under 15A NCAC 02D .0611.

Notification [40 CFR 63.11225(g)]

- c. If the Permittee has switched fuels or made a physical change to the boiler(s) and the fuel-switch or change resulted in the applicability of a different subcategory within 40 CFR Part 63 Subpart JJJJJ or in the boiler(s) becoming subject to 40 CFR Part 63 Subpart JJJJJ, the Permittee shall provide notice of the date upon which the fuel-switch or physical change occurred. The notification shall be submitted within 30 days of the date the fuel-switch or physical change was made and must identify:
 - i. The name of the owner or operator of the affected source, the location of the source, the boiler(s) that have switched fuels or were physically changed, and the date of the notice.
 - ii. The date upon which the fuel switch or physical change occurred.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if notification is not provided within 30 days of the effective date of the fuel switch.

Compliance Dates [40 CFR 63.11210(h)]

- d. For affected boiler(s) that switch fuels or make a physical change to the boiler(s) that results in the applicability of a different subcategory within 40 CFR Part 63 Subpart JJJJJ or the boiler(s) becoming subject to 40 CFR Part 63 Subpart JJJJJ, the Permittee shall demonstrate compliance with the "National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers" within 180 days of the effective date of the fuel switch or the physical change, as specified in Section 2.1 A.7.d. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if compliance is not demonstrated within 180 days of the effective date of the fuel switch.

AOS – Operating boilers (ID Nos. ES-2 through ES-8) in a manner other than as gas-fired boilers as defined in 40 CFR 63.11237 and as specified in Section 2.1 A.1.b.

7. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

- a. For these sources (**ID Nos. ES-2 through ES-8**), the Permittee shall comply with all applicable provisions, including the notification, testing, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1111, "Maximum Achievable Control Technology" as promulgated in 40 CFR 63, Subpart JJJJJ, "National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers," including Subpart A "General Provisions."

Definitions and Nomenclature

- b. For the purposes of this permit condition, the definitions and nomenclature contained in 40 CFR 63.11237 shall apply.

General Provisions [40 CFR 63.11235]

- c. The Permittee shall comply with the General Provisions as applicable pursuant to Table 8 of 40 CFR 63 Subpart JJJJJ.

Compliance Dates [40 CFR 63.11210(h)]

- d. For affected boilers that switch fuels that results in the boiler becoming subject to subpart JJJJJ, the Permittee shall achieve compliance with the initial tune up requirement and the one-time energy assessment within 180 days of the date upon which burning of liquid fuel outside those periods allowed in Section 2.1 A.1.a first occurred. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements are not met.

Notification of Compliance Status [15A NCAC 02Q .0508(b)]

- e. The Permittee shall submit a Notification of Compliance Status no later than 120 days after the compliance date specified in Section 2.1 A.7.d [40 CFR 63.11225(a)(4)]
 - i. The Notification of Compliance Status must be signed by a responsible official and include the following certifications of compliance:
 - (A) “This facility complies with requirements in 40 CFR 63.11214 to conduct an initial tune-up of the boiler.”
 - (B) “This facility has had an energy assessment of the boiler and its energy use systems performed according to Table 2 to this subpart and that the assessment is an accurate depiction of the facility at the time of the assessment or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended.” [40 CFR 63.11214(c)]
 - (C) “No secondary materials that are solid waste were combusted in any affected unit.”
 - ii. The notification must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Administrator at the appropriate address listed in 40 CFR 63.13.
- f. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Sections 2.1 A.7.d and e are not met.

General Compliance Requirements [15A NCAC 02Q .0508(b)]

- g. At all times the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.11205(a)] The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements are not met.

Performance Tune-up Requirements [15A NCAC 02Q .0508(b)]

- h.. The Permittee shall conduct an initial tune-up of the boiler and subsequent tune-ups biennially.
 - i. Each biennial tune-up shall be conducted no more than 25 months after the previous tune-up.
 - ii. The Permittee shall conduct the tune-ups while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.
 - iii. The tune-ups shall be conducted according to the following procedures:
 - (A) As applicable, the Permittee shall inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection).
 - (B) The Permittee shall inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

- (C) The Permittee shall inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the Permittee may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection).
- (D) The Permittee shall optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.
- (E) The Permittee shall measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
- (F) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.

[40 CFR 63.11201(b), Table 2, 40 CFR 63.11223(a), (b)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements are not met.

Energy Assessment Requirements [15A NCAC 02Q .0508(b)]

- i. The Permittee shall conduct a one-time energy assessment performed by a qualified energy assessor. The energy assessment must include the following items:
 - i. A visual inspection of the boiler system,
 - ii. An evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints,
 - iii. An inventory of major energy use systems consuming energy from affected boiler(s) and which are under control of the boiler owner or operator,
 - iv. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage,
 - v. A list of major energy conservation measures that are within the facility's control,
 - vi. A list of the energy savings potential of the energy conservation measures identified, and
 - vii. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments. [40 CFR 63.11201(b), Table 2]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements in are not met.

Recordkeeping [15A NCAC 02Q .0508(f)]

- j.. The Permittee shall maintain the following records:
 - i. As required in 40 CFR 63.10(b)(2)(xiv), the Permittee shall keep a copy of each notification and report that was submitted to comply with this rule and all documentation supporting any Initial Notification of Compliance Status that was submitted.
 - ii. The Permittee shall maintain on-site and submit, if requested by the Administrator, a report containing the following information:
 - (A) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.
 - (B) A description of any corrective actions taken as a part of the tune-up of the boiler.
 - (C) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

[40 CFR 63.11223(b)(6)]

- iii. The Permittee shall keep the following records to document performance with the applicable requirements:
 - (A) Records that identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.

- (B) The Permittee shall keep a copy of each boiler energy assessment report.
- (C) Records of the occurrence and duration of each malfunction of the boiler or of the associated air pollution control and monitoring equipment.
- (D) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in Section 2.1 A.7.h, including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.
- (E) For operating units that combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to 40 CFR 241.3(b)(1), the Permittee shall keep a record which documents how the secondary material meets each of the legitimacy criteria under 40 CFR 241.3(b)(4), you must keep records as to how the operations that produced the fuel satisfies the definition of processing in 40 CFR 241.2 and each of the legitimacy criteria in 40 CFR 241.3(d)(1). If the fuel received a non-waste determination pursuant to the petition process submitted under 40 CFR 241.3(c), the Permittee must keep a record that documents how the fuel satisfies the requirements of the petition process. For operating units that combust non-hazardous secondary materials as fuel per 40 CFR 241.4, the Permittee must keep records documenting that the material is listed as non-waste under 40 CFR 241(a).

[40 CFR 63.11225(c)]

- iv. The records must be in a form suitable and readily available for expeditious review. The Permittee shall keep each record for 5 years following the date of each recorded action. The Permittee shall keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. The Permittee may keep the records off site for the remaining 3 years. [40 CFR 63.11225(d)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements are not met.

Reporting [15A NCAC 02Q .0508(f)]

- k. The reporting requirements of 40 CFR 63.11225(b) shall be met by complying with General Condition P of Section 3 of this permit. The Permittee shall be deemed in noncompliance with 15 NCAC 02D .1111 if these requirements are not met.

B. Four (4) natural gas-fired hair singers (ID Nos. ES-9, ES-10, ES-15, and ES-16);

One (1) biogas flare (CD-11) installed on the wastewater treatment plant (ID No. ES-BPS);

Eight (8) No. 2 fuel oil-fired electric generators (South Building: ID Nos. ES-17 to ES-24) with associated CO emissions reduction systems (ID No. C4)

Eleven (11) No. 2 fuel oil-fired electric generators (North Building: ID Nos. ES-26 to ES-36) with associated CO emissions reduction systems (ID No. C5)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
HAPs and carbon monoxide (CO)	For No.2 fuel oil-fired electric generators (ES-17 to ES-24 and ES-26 to ES-36) i. 23 ppmvd at 15 percent oxygen; or ii. 70 percent reduction in CO emissions	15A NCAC 02D .1111 (40 CFR 63 Subpart ZZZZ)

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide Nitrogen oxides	Fuel oil (electric generators [South Building]), biogas and natural gas firing See Section 2.2 A – PSD Avoidance	15A NCAC 02Q .0317
Nitrogen oxides	Fuel oil firing (electric generators [North Building]) less than 250 tons per consecutive 12-month period	15A NCAC 02Q .0317

1. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these sources (**ID Nos. ES-9, ES-10, ES-15, ES-16, ES-BPS, ES-17 through ES-24 and ES-26 through ES-36**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508 (f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of biogas, natural gas, or No. 2 fuel oil in these sources (**ID Nos. ES-9, ES-10, ES-15, ES-16, ES-BPS, ES-17 through ES-24 and ES-26 through ES-36**).

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-9, ES-10, ES-15, ES-16, ES-BPS, ES-17 through ES-24 and ES-26 through ES-36**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not 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.

Testing [15A NCAC 02Q .0508 (f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of biogas, natural gas, or No. 2 fuel oil in these sources (**ID Nos. ES-9, ES-10, ES-15, ES-16, ES-BPS, ES-17 through ES-24 and ES-26 through ES-36**).

3. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.6585, 40 CFR 63.6590(a)(1)(iii)]

- a. For these emission sources (**ID Nos. ES-17 to ES-24, and ES-26 to ES-36**), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, "Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines," and Subpart A "General Provisions."

Definitions and Nomenclature

- b. For the purposes of this permit condition, the definitions and nomenclature contained in 40 CFR 63.6675 shall apply.

Applicability Date [40 CFR 63.6595(a)(1)]

- c. The Permittee shall comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013.

General Provisions [40 CFR 63.6665]

- d. The Permittee shall comply with the General Provisions as applicable pursuant to Table 8 of 40 CFR 63 Subpart ZZZZ.

Notifications [40 CFR 63.6645(a)(2)]

- e. The Permittee shall:
- submit all of the notifications in the following regulations that apply by the dates specified:
(A) 40 CFR 63.7(b) [performance testing] and (c) [quality assurance program];
(B) 40 CFR 63.8(e) [performance evaluation of CPMS], (f)(4) and (f)(6) [alternative monitoring methods]; and
(C) 40 CFR 63.9(b) through (e), and (g) and (h) [initial notifications].
 - submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in 40 CFR 63.7(b)(1). [40 CFR 63.6645(g)]
 - for each performance test, submit a Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to 40 CFR 63.9(h)(2)(ii) and 63.10(d)(2). [40 CFR 63.6630(c), 40 CFR 63.6645(h)]
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these notification requirements are not met.

General Compliance Requirements [15A NCAC 2Q .0508(b)]

- f. The permittee shall:
- be in compliance with the emission limitations, operating limitations and other requirements that apply at all times. [40 CFR 63.6605(a)]
 - operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these requirements are not met.

Fuel Requirements [15A NCAC 2Q .0508(f)]

- g. The Permittee shall use diesel fuel in the engine with:
- a maximum sulfur content of 15 ppm; and
 - a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.
- [40 CFR 63.6604(a)]

Emissions and Operating Limitations [15A NCAC 2Q .0508(b)]

- h. The Permittee shall, using an oxidation catalyst limit the concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O₂; or reduce CO emissions by 70 percent or more.

[40 CFR 63.6603(a), Table 2d, Table 2b]

- i. Except during periods of start-up, the Permittee shall maintain the temperature of the stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. [40 CFR 63.6603(a), Table 2b]
- ii. Except during periods of start-up, the Permittee shall maintain the catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst that was measured during the most recent performance test. [40 CFR 63.6603(a), Table 2b]
- iii. During periods of startup of the IC engine, the Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 40 CFR 63.6625(h), Table 2d]
- iv. If the engine(s) is not equipped with a closed crankcase ventilation system, the Permittee shall comply with either subparagraph (A) or (B). Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements.
 - (A) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or
 - (B) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates and metals.
 [40 CFR 63.6625(g)]

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these requirements are not met.

Testing Requirements [15A NCAC 2Q .0508(b)]

- i. The Permittee shall conduct initial and subsequent performance tests to demonstrate compliance with the limitations in Sections 2.1 B.3.h . [40 CFR 63.6620(a)]
 - i. The Permittee shall conduct the initial performance test by October 30, 2013 and according to 40 CFR 63 Subpart ZZZZ Tables 4 and 5 and the provisions in 40 CFR 63.7(a)(2). [40 CFR 63.6612(a)] This initial testing was satisfied by the Permittee.
 - ii. The Permittee shall conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first. [40 CFR 63.6615, Table 3]
 - iii. Each performance test shall be conducted according to the requirements of 40 CFR 63 Subpart ZZZZ Table 4. If a non-operational stationary RICE is subject to performance testing, the Permittee does not need to start up the engine solely to conduct the performance test. The Permittee can conduct the performance test when the engine is started up again. [40 CFR 63.6620(a), (b)]

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these requirements are not met.

Monitoring [15A NCAC 2Q .0508(f)]

- j. The Permittee shall install, operate, and maintain continuous parameter monitoring systems (CPMS) to monitor the catalyst inlet temperature for each catalyst and reduce the temperature data to 4- hour rolling averages. The Permittee shall maintain the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature in Section 2.1 B.3.h.i. [40 CFR 63 Subpart ZZZZ Table 5, 40 CFR 63.6625(b), 40 CFR 63.6640(a), Table 6]
 - i. The Permittee shall measure the pressure drop across the catalyst once per month and demonstrate that the pressure drop across the catalyst is within the operating limitation established during the performance test per Section 2.1 B.3.h.ii. [40 CFR 63 Subpart ZZZZ Table 5, 40 CFR 63.6640(a), Table 6]
 - ii. The Permittee shall install, operate, and maintain each CPMS according to the requirements in paragraphs (A) through (F):
 - (A) The Permittee shall prepare a site-specific monitoring plan that addresses the monitoring system

design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of 40 CFR 63.6625 and in 40 CFR 63.8(d).

- (B) The Permittee shall install, operate, and maintain each CPMS in continuous operation according to the procedures in the site-specific monitoring plan.
- (C) The CPMS must collect data at least once every 15 minutes (see also 40 CFR 63.6635).
- (D) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.
- (E) The Permittee shall conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least annually.
- (F) The Permittee shall conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan.

[40 CFR 63.6625(b)]

- iv. The Permittee shall monitor and collect data as follows:

- (A) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, the Permittee shall monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- (B) The Permittee shall not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. The Permittee shall, however, use all the valid data collected during all other periods.

[40 CFR 63.6635]

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these requirements are not met.

Recordkeeping [15A NCAC 2Q .0508(f)]

- k. The Permittee shall keep records of the catalyst(s) inlet temperature data including the 4-hour rolling averages and the monthly measurements of the pressure drop across the catalyst(s).

[40 CFR 63.6655(d)]

- i. The Permittee shall keep the following:

- (A) a copy of each notification and report that was submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).
- (B) records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
- (C) records of performance tests and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).
- (D) records of all required maintenance performed on the air pollution control and monitoring equipment.
- (E) records of actions taken during periods of malfunction to minimize emissions in accordance with Section 2.1 B.3.f.i., including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

[40 CFR 63.6655(a)]

- ii. For each inlet catalyst temperature CPMS, the Permittee shall keep the following records:

- (A) records described in 40 CFR 63.10(b)(2)(vi) through (xi).
- (B) previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).
- (C) requests for alternatives to the relative accuracy test for CPMS as required in 40 CFR 63.8(f)(6)(i), if applicable.

[40 CFR 63.6655(b)]

- iii. The Permittee shall keep fuel records demonstrating all fuel burned meets the requirements of Section 2.1 B.3.g above.
- iv. The Permittee shall keep each record in a form suitable and readily accessible for expeditious review in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). [40 CFR 63.6660] The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these requirements are not met.

Reporting [15A NCAC 2Q .0508(f)]

1. The permittee shall submit a compliance report semiannually postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of noncompliance with the requirements of this permit must be clearly identified. [40 CFR 63.6650(a),(b)(5) and 40 CFR 63.6650(f)]
 - i. The compliance report must contain:
 - (A) Company name and address;
 - (B) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report; and
 - (C) Date of report and beginning and ending dates of the reporting period.
 - (D) If a malfunction occurred during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with Section 2.1 B.3.f.i.,(40 CFR 63.6605(b) including actions taken to correct a malfunction.
 - (E) If there are no instances of noncompliance from any emission or operating limitations that apply, a statement that there were no instances of noncompliance from the emission or operating limitations during the reporting period.
 - (F) If there were no periods during which the CPMS was out-of-control, as specified in 40 CFR 63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

[40 CFR 63.6650(c)]
 - ii. For each instance of noncompliance from an emission or operating limitation that occurs for the stationary RICE where the Permittee is **not using a CMS** to comply with the emission or operating limitations , the compliance report must contain the information in Sections 2.1 B.3.1.i(A) through (D) and the following information:
 - (A) The total operating time of the stationary RICE at which the instance of noncompliance occurred during the reporting period.
 - (B) Information on the number, duration, and cause of instances of noncompliance (including unknown cause, if applicable), as applicable, and the corrective action taken.

[40 CFR 63.6650(d)]
 - iii. For each instance of noncompliance from an emission or operating limitation occurring for a stationary RICE where the Permittee **is using a CMS** to comply with the emission and operating limitations in this subpart, the Permittee shall include information in Sections 2.1 B.3.1.i(A) through (D) and the following information:
 - (A) The date and time that each malfunction started and stopped.
 - (B) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
 - (C) The date, time, and duration that each CMS was out-of-control, including the information in 40 CFR 63.8(c)(8).
 - (D) The date and time that each instance of noncompliance started and stopped, and whether each instance of noncompliance occurred during a period of malfunction or during another period.

- (E) A summary of the total duration of the instances of noncompliance during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
 - (F) A breakdown of the total duration of the instances of noncompliance during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
 - (G) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
 - (H) An identification of each parameter and pollutant that was monitored at the stationary RICE.
 - (I) A brief description of the stationary RICE.
 - (J) A brief description of the CMS.
 - (K) The date of the latest CMS certification or audit.
 - (L) A description of any changes in CMS, processes, or controls since the last reporting period.
- [40 CFR 63.6650(e)]

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if these requirements are not met.

4. 15A NCAC 02Q. 0317: AVOIDANCE OF PREVENTION OF SIGNIFICANT DETERIORATION

- a. In order to avoid applicability of 15A NCAC 02D .0530(g), the eleven (11) electric generators in the North Building (**ID Nos. ES-26 to ES-36**) shall discharge into the atmosphere less than 250 tons of nitrogen oxides per consecutive 12-month period. The total use of No. 2 fuel oil in the eleven (11) electric generators shall be limited to 1,105,000 gallons per year such that nitrogen oxides emissions are less than 250 tons for any consecutive 12-month period.

Testing [15A NCAC 02Q .0508 (f)]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.2 A.1.a., the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. The total use (in gallons) of No. 2 fuel oil in the eleven (11) electric generators in the North Building (**ID Nos. ES-26 to ES-36**) shall be recorded monthly. Records shall be kept in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the fuel usage is not recorded or if the fuel usage exceeds the limit in Section 2.1 B.4.a.

Reporting [15A NCAC 02Q .0508(f)]

- d. The Permittee shall submit a semiannual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding 6-month period between July and December and July 30 of each calendar year for the preceding 6-month period between December and June. The report shall contain the following:
 - i. The monthly nitrogen oxides emissions for the previous 14 months. The emissions must be calculated for each of the 12-month periods over the previous 14 months; and,
 - ii. The monthly quantities of No. 2 fuel oil consumed for the previous 14 months.

C. One (1) rendering plant operation (ID Nos. ES-12a.2, ES-12a.3, ES-12b, ES-12c, ES-13, and ES-14) consisting of:

- a) **Two (2) cookers with throughput capacities of 44,000 pounds of water per hour, each (ID Nos. ES-12a.2 and ES-12a.3) with primary entrainment traps controlled by:**
 - i) **One (1) condensables removal system sized to condense a maximum of 148,000 pounds per hour of water vapor consisting of four (4) air-cooled condensers (ID Nos. C1C.1 through C1C.4) that can run with or without one (1) shell and tube heat exchanger (ID No. C1C.5) in series with**

- ii) One (1) fixed throat venturi scrubber with a pressure range of 12 to 40 pounds per square inch (ID No. C1V) utilizing process wastewater or freshwater in series with
 - iii) One (1) packed tower wet scrubber with a pressure range of 12 to 20 pounds per square inch (ID No. C1P) utilizing chlorine dioxide.
- b) One (1) rendering plant hair hydrolyzer (ID No. ES-12b) controlled by the following:
 - i) One (1) fixed throat venturi scrubber with a pressure range of 12 to 40 pounds per square inch (ID No. C1V) utilizing process wastewater or freshwater in series with
 - ii) One (1) packed tower wet scrubber with a pressure range of 12 to 20 pounds per square inch (ID No. C1P) utilizing chlorine dioxide.
- c) Low intensity odorous rendering plant operations including meal presses and grease centrifuges (ID No. ES-12c) controlled by the following:
 - i) One (1) fixed throat venturi scrubber with a pressure range of 12 to 40 pounds per square inch (ID No. C1V) utilizing process wastewater or freshwater in series with
 - ii) One (1) packed tower wet scrubber with a pressure range of 12 to 20 pounds per square inch (ID No. C1P) utilizing chlorine dioxide.
- d) One (1) natural gas-fired ring blood dryer (ID No. ES-13) controlled by the following:
 - i) One (1) fixed throat venturi scrubber with a pressure range of 10 to 40 pounds per square inch (ID No. C2V) utilizing process wastewater or freshwater in series with
 - ii) One (1) packed tower wet scrubber with a pressure range of 7 to 20 pounds per square inch (ID No. C2P) utilizing chlorine dioxide.
- e) Rendering plant building room ventilation and ventilation of two wastewater pretreatment decanter centrifuges (ID No. ES-14) controlled by one packed tower wet scrubber with a pressure range of 10 to 40 pounds per square inch (ID No. C3) utilizing chlorine dioxide.

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10P^{0.67}$ or $E = 55.0P^{0.11} - 40$ where E = allowable emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 02D .0515
Sulfur dioxide	2.3 pounds per million Btu heat <i>Ring blood dryer (ID No. ES-13) only</i>	15A NCAC 02D .0516
Sulfur dioxide	See Section 2.2 A – PSD Avoidance <i>Ring blood dryer (ID No. ES-13) only</i>	15A NCAC 02Q .0317
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Nitrogen oxides	See Section 2.2 A – PSD Avoidance <i>Ring blood dryer (ID No. ES-13) only</i>	15A NCAC 02Q .0317
Odor	See Section 2.2 B; State-enforceable only	15A NCAC 02D .0539

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (ID Nos. ES-12a.2, ES-12a.3, ES-12b, ES-12c, ES-13, and ES-14) shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$

$$\text{Or } E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where E = allowable emission rate in pounds per hour
 P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508 (f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring[15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from the two cookers (**ID Nos. ES-12a.2 and ES-12a.3**) shall be controlled by the condensables removable system (**ID Nos. C1C.1 through C1C.5**) in series with a venturi scrubber (**ID No. C1V**) that is in series with a packed tower wet scrubber (**ID No. C1P**). Particulate matter emissions from the hair hydrolyzer (**ID No. ES-12b**) and the low intensity odorous rendering plant operations (**ID No. ES-12c**) shall be controlled by a venturi scrubber (**ID No. C1V**) in series with a packed tower wet scrubber (**ID No. C1P**). Particulate matter emissions from the ring blood dryer (**ID No. ES-13**) shall be controlled by a venturi scrubber (**ID No. C2V**) in series with a packed tower wet scrubber (**ID No. C2P**). Particulate matter emissions from the rendering plant building ventilation system (**ID No. ES-14**) shall be controlled by a packed tower wet scrubber (**ID No. C3**). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer of the control devices. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
 - i. a monthly visual inspection of the system duct work and control devices for leaks; and
 - ii. a semiannual internal inspection of the control devices including the four air cooled condensers (**ID Nos. C1C.1 through C1C.4**), the venturi scrubbers (**ID Nos. C1V and C2V**) and the packed tower wet scrubbers (**ID Nos. C1P, C2P, and C3**) for structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and the condensables removable system (**ID Nos. C1C.1 through C1C.5**), the venturi scrubbers (**ID No. C1V and C2V**) and the packed tower wet scrubbers (**ID Nos. C1P, C2P, and C3**) are not inspected and maintained.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the control devices; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the control devices within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 C.1.c and d postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from this source (**ID No. ES-13**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508 (f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in this source (**ID No. ES-13**).

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-12, ES-13, ES-14**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not 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.

Testing [15A NCAC 02Q .0508 (f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the rendering plant operation's sources (**ID Nos. ES-12, ES-13, ES-14**).

D. One (1) plant refrigeration system (ID No. IES-I37)

Regulated Pollutant	Limits/Standards	Applicable Regulation
Toxic Air Pollutants (TAPs)	State Enforceable Only Ammonia emissions shall not exceed 18 lb/hr	15A NCAC 02D .1100

State Enforceable Only**1. TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REQUIREMENT**

- a. Pursuant to 15A NCAC 02D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

EMISSION SOURCE	TOXIC AIR POLLUTANT	EMISSION LIMIT
Plant refrigeration system (ID No. IES-37)	Ammonia	18 lb/hr

- b. To ensure compliance with the toxic air pollutant emission limit listed above, the total quantity of ammonia purchased by the facility (to make-up for inventory lost) shall not exceed 157,680 pounds for any consecutive 12-month period (lbs/12-months).

The Permittee shall maintain ammonia purchasing records to demonstrate compliance with the emissions and purchasing limits provided above.

2.2 Multiple Emission Source(s) Specific Limitations and Conditions

A. One (1) biogas/natural gas-fired boiler (ID No. ES-1/CD-ES-1),

One (1) biogas/natural gas/No. 2/No. 4/No. 5/No. 6 fuel oil-fired boiler (ID No. ES-2/CD-ES-2),

One (1) natural gas/animal fat/biogas/No. 2/No. 4/No. 5/No. 6 fuel oil-fired boiler (ID No. ES-3),

Five (5) natural gas/animal fat/No. 2/No. 4/No. 5/No. 6 fuel oil-fired boilers (ID Nos. ES-4, ES-5, ES-6, ES-7, ES-8),

Four (4) natural gas-fired hog singers (ID Nos. ES-9, ES-10, ES-15, and ES-16),

One (1) biogas flare (ID No. CD-11),

Eight (8) No. 2 fuel oil-fired electric generators (South Building: ID Nos. ES-17, ES-18, ES-19, ES-20, ES-21, ES-22, ES-23, and ES-24), and

One (1) natural gas-fired ring blood dryer (ID No. ES-13).

The following table provides a summary of limits and standards for the emission source(s) describe above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Nitrogen oxides	Biogas, natural gas, animal fat, or fuel oil firing Less than 250 tons per consecutive (12) month period	15A NCAC 02Q .0317 (15A NCAC 02D .0530)
Sulfur dioxide	Biogas, natural gas, animal fat, or fuel oil firing Less than 250 tons per consecutive (12) month period	15A NCAC 02Q .0317 (15A NCAC 02D .0530)

1. 15A NCAC 02Q. 0317: AVOIDANCE CONDITIONS for 15A NCAC 02D. 0530, PREVENTION OF SIGNIFICANT DETERIORATION (Nitrogen Oxides)

- a. In order to avoid applicability of 15A NCAC 02D .0530(g), the above emission sources shall discharge into the atmosphere less than 250 tons of nitrogen oxides per consecutive 12-month period. The combination of fuel usage in the above emission sources shall be limited such that nitrogen oxides emissions shall not exceed 250 tons for any consecutive 12-month period.

Testing [15A NCAC 02Q .0508 (f)]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.2 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
- c. Under the provisions of NCGS 143-215.108, the Permittee shall conduct a stack test of one of the boilers (ID Nos. ES-3, ES-4, ES-5, ES-6, ES-7, ES-8) and submit test results to the DAQ within 180 days of the commencement of the burning of animal fat unless an alternate date is approved by the DAQ.
 - i. The stack test results shall be used to determine the emission rate of nitrogen oxides associated with the combustion of animal fat (in lbs/MMBtu and lb/10³ gal);
 - ii. The test shall utilize EPA Reference Method No. 7, contained in 40 CFR Part 60 Appendix A or in accordance with a testing protocol approved by the DAQ;
 - iii. A fuel analysis shall be completed prior to the stack test to determine the heat content of the fuel (in Btu/gal) and the sulfur content of the fuel (in % by weight);
 - iv. During the test, the boiler shall be operated at its maximum heat input capacity;
 - v. During the test, the boiler shall fire 100% animal fat;

- vi. The Permittee shall comply with all reporting and test requirements found in Section 3 - General Condition JJ.
- vii. The Permittee shall apply for a permit modification to include the NO_x emission factor, as determined in the stack test, in the Title V permit. The emission factor may be added to the permit administratively. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if this test is not conducted as provided above.
- d. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.2 A.1.a, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- e. The Permittee shall keep monthly records of the amount of each fuel used in a logbook (written or in electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the fuel usage is not monitored and recorded.
- f. Each month, total nitrogen oxide emissions from the above sources for the previous 12-month period shall be calculated and recorded. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the above records are not kept or if the nitrogen oxides emissions exceed the limit in Section 2.2 A.1. a.

Reporting [15A NCAC 02Q .0508(f)]

- g. The Permittee shall submit a semiannual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding 6-month period between July and December and July 30 of each calendar year for the preceding 6-month period between December and June. The report shall contain the following:
 - i. The monthly nitrogen oxides emissions for the previous 14 months. The emissions must be calculated for each of the 12-month periods over the previous 14 months; and,
 - ii. The monthly quantities of biogas, natural gas, animal fat, and fuel oil consumed over the previous 14 months.
- h. The Permittee shall submit a written notice to DAQ within 15 days of the burning of any animal fat.

2. 15A NCAC 02Q. 0317: AVOIDANCE CONDITIONS

for 15A NCAC 02D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION (Sulfur Dioxide)

- a. In order to avoid applicability of 15A NCAC 02D .0530(g), the above emission sources shall discharge into the atmosphere less than 250 tons of sulfur dioxide per consecutive 12-month period. The combination of fuel usage in the above emission sources shall be limited such that sulfur dioxide emissions shall not exceed 250 tons for any consecutive 12-month period.

Testing [15A NCAC 02Q .0508 (f)]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.2 A.2.a, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- c. The Permittee shall keep monthly records of the amount of fuel used and the sulfur content, including certification of the fuel, in a logbook (written or in electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the fuel usage or sulfur contents of the fuels are not monitored.
- d. Each month, total sulfur dioxide emissions from the above sources for the previous 12-month period shall be calculated and recorded. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the above records are not kept or if the sulfur dioxide emissions exceed the limit in Section 2.2 A.2.a.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a semiannual summary report, acceptable to the Regional Air Quality

Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding 6-month period between July and December and July 30 of each calendar year for the preceding 6-month period between December and June. The report shall contain the following:

- i. The monthly sulfur dioxide emissions for the previous 14 months. The emissions must be calculated for each of the 12-month periods over the previous 14 months;
- ii. The monthly quantities of biogas, natural gas, animal fat, and fuel oil consumed over the previous 14 months, and the average sulfur content for the fuel oil.

B. One (1) rendering plant operation (ID Nos. ES-12, ES-13, and ES-14)

State Enforceable Only

1. 15A NCAC 02D .0539: ODOR CONTROL OF FEED INGREDIENT MANUFACTURING PLANTS

Any device, machine, equipment, or other contrivance used to process material for the production of feed-grade animal proteins or feed-grade animal fats and oils, except for any portions that are engaged exclusively in the process of food for human consumption, shall be operated in compliance with the following requirements:

- a. Control Device Requirement: The Permittee shall not allow, cause, or permit the operation of any device, machine, equipment, or other contrivance unless all gases, vapors, and gas-entrained effluents from these processes are passed through condensers to remove all steam and other condensable materials. All noncondensable gases passing through the condensers shall be incinerated at 1200 degrees Fahrenheit for a period of not less than 0.3 seconds, or treated in an equally effective manner.

Odorous emissions from the various sources within the facility shall be controlled by their respective control devices as described in Section 2.1 C.

- b. Measurement and Recording Requirements: The Permittee processing or incinerating gases, vapors, or gas-entrained matter as required by condition 2.2 B.1.a above shall install, operate, calibrate, and maintain in good working order continuous operating parameter measuring and recording devices to document equipment operation in accordance with 15A NCAC 02D .0539. In addition, the Permittee shall follow an approved quality assurance program for all monitoring devices and systems, including:
 - i. procedures and frequencies for calibration,
 - ii. standards traceability,
 - iii. operational checks,
 - iv. maintenance schedules and procedures,
 - v. auditing schedules and procedures, and
 - vi. data validation.
- c. Expeller Requirement: The Permittee shall not allow, cause, or permit the installation or operation of expeller units unless they are properly hooded and all exhaust gases are collected or ducted to odor control equipment.
- d. Handling, Transport, and Storage Requirement: The Permittee shall not cause or permit any raw material to be handled, transported, or stored, or to undertake the preparation of any raw material without taking reasonable precautions to prevent odors from being discharged. Such raw material is in "storage" after it has been unloaded at a facility or after it has been located at the facility for at least 24 hours. Reasonable precautions shall include the following:
 - i. storage of all raw material before or in the process of preparation, in properly enclosed and vented equipment or areas, together with the use of effective devices and methods to prevent the discharge of odor bearing gases;
 - ii. use of covered vehicles or containers of watertight construction for the handling and transporting of any raw material; and

- iii. use of hoods and fans to enclose and vent the storage, handling, preparation, and conveying of any odorous materials together with effective devices or methods, or both, to prevent emissions of odors or odor bearing gases.
- e. Notification of Release of Excessive and Malodorous Gases or Vapors: The Permittee shall notify the regional air quality supervisor of the appropriate regional office within two (2) business days after conditions are encountered that cause or may cause release of excessive and malodorous gases or vapors.
- f. Control Device Maintenance, Monitoring, Recordkeeping and Reporting Requirement: To prevent odorous emissions from the facility the optimum control efficiency of the venturi scrubbers (**ID Nos. C1V and C2V**), the packed tower scrubbers (**ID Nos. C1P, C2P and C3**) and the condensables removal system (**ID Nos. C1C.1 through C1C.5**) shall be maintained. To ensure this the Permittee, shall perform inspections and maintenance as recommended by the manufacturer. As a minimum, the inspection and maintenance program shall include the following:
 - i. Continuous monitoring of the pressure associated with flow rate of all scrubbers and the Oxidation Reduction Potential (ORP) of chlorine dioxide delivered to the packed tower scrubbers when the scrubbers are in operation with the results and time of observations to be noted in a logbook (written or electronic format) at least once a day. Maintain ORP and pressure values within ranges in the tables below:

Control Device	ORP Range (mV)
Packed Tower Wet Blood Scrubber (ID No. C2P)	400-850
Packed Tower Wet Room Air Scrubber (ID No. C3)	400-850
Packed Tower Wet High Intensity Scrubber (ID No. C1P)	500-950

Control Device	Pressure Ranges (psi)
Packed Tower Wet Blood Scrubber (ID No. C2P)	7-20
Packed Tower Wet Room Air Scrubber (ID No. C3)	10-40
Packed Tower Wet High Intensity Scrubber (ID No. C1P)	12-20
Fixed throat Venturi Scrubber (ID No. C1V)	12-40
Fixed throat Venturi Scrubber (ID No. C2V)	10-40

- ii. Weekly inspection of the scrubbers including spray nozzles, packing material, and chemical (chlorine dioxide) feed system to ensure proper operation;
- iii. Monthly cleaning and calibration of all instrumentation associated with the control devices;
- iii. Monthly inspection of the condensers including inspection of the duct work and leakage of coolant and gas stream; and
- h. Semiannual internal inspection of the control devices (**ID Nos. C1V, C2V, C1P, C2P, C3, and C1C.1 through C1C.4**) and external inspection of associated duct work to ensure structural integrity. The results of inspection and maintenance for the control devices shall be maintained in a logbook (written or electronic format) on site and made available to an authorized DAQ representative upon request. The logbook shall contain the following:
 - (A) date and time of actions including the monitoring parameters measured or recorded;
 - (B) the results of each inspection;
 - (C) the results of any maintenance performed on the control devices; and
 - (D) any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least three years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring, and copies of all reports required by the permit.

C. All emission sources

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odors	Odorous emissions must be controlled; State-enforceable only	15A NCAC 02D .1806

State Enforceable Only

1. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

- a. The 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.
- b. Per 15A NCAC 02D .1806(f), if the Division of Air Quality (the Division) determines that the Permittee is emitting objectionable odor by the procedures described in 15A NCAC 02D .1806(g), the Division may provide a written notification to the Permittee requiring a determination of maximum feasible controls for odorous emissions pursuant to 15A NCAC 02D .1807.

2. 15A NCAC 02D .2100, RISK MANAGEMENT PROGRAM

- a. The Permittee is subject to Section 112(r) of the Clean Air Act and shall comply with all applicable requirements in 15A NCAC 02D .2100, "Risk Management Program," as promulgated in 40 CFR Part 68.

Recordkeeping/Reporting [15A NCAC 02Q .0508(f), 15A NCAC 02Q .0508(h)]

- b. The Permittee shall submit an update to the Risk Management Plan (RMP) to EPA pursuant to 40 CFR 68.150 as specified in 40 CFR 68.10.
- c. The Permittee shall revise and update the RMP submitted under 40 CFR 68.150 no later than August 22, 2022 and at least every five years after the most recent update as required by 40 CFR 68.190(b)(2) through (b)(7), whichever is later.
- d. When the Permittee submits the Annual Compliance Certification required by General Condition P, the Permittee shall include a statement that the facility is in compliance with all requirements of 15A NCAC 02D .2100, including the registration

SECTION 3 - GENERAL CONDITIONS (version 5.5, 08/25/2020)

This section describes terms and conditions applicable to this Title V facility.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NO_x budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. Duty to Comply [15A NCAC 02Q .0508(i)(3)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. Circumvention - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. Permit Modifications

1. Administrative Permit Amendments [15A NCAC 02Q .0514]

The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.

2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]

The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.

3. Minor Permit Modifications [15A NCAC 02Q .0515]

The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.

4. Significant Permit Modifications [15A NCAC 02Q .0516]

The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.

5. Reopening for Cause [15A NCAC 02Q .0517]

The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. Changes Not Requiring Permit Modifications

1. Reporting Requirements

Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:

- a. changes in the information submitted in the application;
- b. changes that modify equipment or processes; or
- c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]

- a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
- b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;

- iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
 - c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.
 - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
- 3. Off Permit Changes [15A NCAC 02Q .0523(b)]
 The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
- 4. Emissions Trading [15A NCAC 02Q .0523(c)]
 To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A Reporting Requirements for Excess Emissions and Permit Deviations [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

“Excess Emissions” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. *(Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.)*

“Deviations” - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

- 1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
- 2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
 - a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
 - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
 - name and location of the facility;
 - nature and cause of the malfunction or breakdown;
 - time when the malfunction or breakdown is first observed;
 - expected duration; and
 - estimated rate of emissions;
 - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
 - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B Other Requirements under 15A NCAC 02D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. Emergency Provisions [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. Permit Renewal [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In

either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. Permit Shield for Applicable Requirements [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
 - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
 - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
 - c. the applicable requirements under Title IV; or
 - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. Termination, Modification, and Revocation of the Permit [15A NCAC 02Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. Insignificant Activities [15A NCAC 02Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. Property Rights [15A NCAC 02Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. Inspection and Entry [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
 - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.
2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or

interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q .0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(3)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(d)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) – FEDERALLY-ENFORCEABLE ONLY

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. Title IV Allowances [15A NCAC 02Q .0508(i)(1)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. Air Pollution Emergency Episode [15A NCAC 02D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. Registration of Air Pollution Sources [15A NCAC 02D .0202]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. Ambient Air Quality Standards [15A NCAC 02D .0501(c)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. General Emissions Testing and Reporting Requirements [15A NCAC 02Q .0508(i)(16)]

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .1110, or .1111 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance for emission sources subject to Rules .0524, .1110, or .1111, the Permittee shall provide and submit all notifications, conduct all testing, and submit all test reports in accordance with the requirements of 15A NCAC 02D .0524, .1110, or .1111, as applicable. Otherwise, if emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.

4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
 - a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
 - i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
 - ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
 - iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
 - b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. Reopening for Cause [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. Fugitive Dust Control Requirement [15A NCAC 02D .0540]

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible

emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas, stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. **Specific Permit Modifications** [15A NCAC 02Q .0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(b)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
 - a. a description of the change at the facility;
 - b. the date on which the change will occur;
 - c. any change in emissions; and
 - d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
BAE	Baseline Actual Emissions
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CSAPR	Cross-State Air Pollution Rule
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
GHGs	Greenhouse Gases
HAP	Hazardous Air Pollutant
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NAAQS	National Ambient Air Quality Standards
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
OAH	Office of Administrative Hearings
PAE	Projected Actual Emissions
PAL	Plantwide Applicability Limitation
PM	Particulate Matter
PM_{2.5}	Particulate Matter with Nominal Aerodynamic Diameter of 2.5 Micrometers or Less
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
TAP	Toxic Air Pollutant
tpy	Tons Per Year
VOC	Volatile Organic Compound