



North Carolina Department of Environment and Natural Resources
Division of Air Quality

Beverly Eaves Perdue
Governor

B. Keith Overcash, P.E.
Director

Dee Freeman
Secretary

xx

DRAFT

Mr. Charles Leffler
Vice Chancellor, Finance and Business
North Carolina State University
P. O. Box 7201
Raleigh, North Carolina 27695

Dear Mr. Leffler:

**SUBJECT: Air Quality Permit No. 02977T20
Facility ID: 9200290
North Carolina State University
Raleigh, North Carolina
Wake County
Fee Class: Title V**

In accordance with your completed Air Quality Permit Application for a PSD modification to your Title V permit received January 22, 2009, we are forwarding herewith Air Quality Permit No. 02977T20 to North Carolina State University, Raleigh, 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 2Q .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.**

The Permittee shall file a Title V Air Quality Permit Application pursuant to 15A NCAC 2Q .0504 for the air emission sources (ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, and ES-63) on or before 12 months after commencing operation.

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 conditions of the attached permit that are applicable to that particular emission source.

Mr. Charles Leffler

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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.

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 GS 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 GS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in GS 143-215.114A and 143-215.114B.

For PSD increment tracking purposes, PM-10, SO₂, and NO_x emissions have increased by 26.4 lbs/hr, 127.8 lbs/hr, and 116.6 lbs/hr, respectively.

This Air Quality Permit shall be effective from xx until **May 31, 2014**, 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 Rahul P. Thaker, P.E., QEP, at (919) 715-6238.

Sincerely yours,

Donald R. van der Vaart, Ph.D., P.E., J.D.
Chief

Enclosure

cc: Gregg Worley, EPA Region 4
Raleigh Regional Office
Central Files

ATTACHMENT
North Carolina State University
Insignificant Activities Under 15A NCAC 2Q .0503(8)

Emission Source ID	Emission Source Description (size)	Facility Location
Natural gas-fired boilers		
IES-01B	3.75 million Btu per hour maximum heat input capacity	Research I-A Building
IES-02B	3.75 million Btu per hour maximum heat input capacity	Research I-B Building
IES-03B	0.65 million Btu per hour maximum heat input capacity	Research II-A Building
IES-04B	2.1 million Btu per hour maximum heat input capacity	Research II-B Building
IES-05B	2.1 million Btu per hour maximum heat input capacity	Research II-C Building
IES-06B	0.4 million Btu per hour maximum heat input capacity	W. Dunn Building
IES-07B	3.3 million Btu per hour maximum heat input capacity	Weed Lab
IES-08B	3.8 million Btu per hour maximum heat input capacity	Deerstyne Isolation Building
IES-09B	1.5 million Btu per hour maximum heat input capacity	Small Animal Lab
IES-10B	0.42 million Btu per hour maximum heat input capacity	Reproductive Lab
IES-11B	4.8 million Btu per hour maximum heat input capacity	Hillsborough Building
IES-12B	1.4 million Btu per hour maximum heat input capacity	Mycotoxin Labs
IES-13B	2.9 million Btu per hour maximum heat input capacity	ABB Building
IES-14B	1.53 million Btu per hour maximum heat input capacity	EHS Center
IES-15B	0.133 million Btu per hour maximum heat input capacity	Admin Center
IES-16B	3.6 million Btu per hour maximum heat input capacity	Partners I Building
IES-17B	5.0 million Btu per hour maximum heat input capacity	Partners II-A Building
IES-18B	5.0 million Btu per hour maximum heat input capacity	Partners II-B Building
IES-20B	4.7 million Btu per hour maximum heat input capacity	Horticultural Fields Labs
IES-21B	4.7 million Btu per hour maximum heat input capacity	Horticultural Fields Labs
IES-22B	3.2 million Btu per hour maximum heat input capacity	McKimmon Center
Diesel-fired emergency generators		
IES-05E	300 kW	Hill Library, Main Campus
IES-06E	350 kW	Research Lab I, Centennial Campus
IES-07E	455 kW	Research Lab II, Centennial Campus
IES-08E	500 kW	Jordon Hall, Main Campus
IES-09E	500 kW	Textiles Building, Centennial Campus
IES-10E	300 kW	College of Veterinary Medicine
IES-15E	300 kW	Dabney Hall, Main Campus
IES-16E	500 kW	Bio Research Center, Main Campus
IES-19E	350 kW	Cox Hall, Main Campus
IES-22E	250 kW	Schaub Hall
IES-23E	400 kW	Hillsborough Building
IES-26E	500 kW	Centennial Engr. I-B Building
IES-30E	400 kW	Partners III Building
IES-34E	300 kW	Cates Steam Plant
IES-36E	250 kW	Method Road Pumping Station
IES-37E	33 kW	Dan Allen Parking Deck
IES-39E	150 kW	APR Lab Pylon

Emission Source ID	Emission Source Description (size)	Facility Location
IES-40E	250 kW	Public Safety Building
IES-41E	25 kW	Reynolds Coliseum
IES-42E	250 kW	Poe Hall
IES-43E	30 kW	Student Center
IES-44E	250 kW	Portable
IES-45E	150 kW	McKimmon Center
IES-46E	35 kW	Weisiger-Brown Building
IES-47E	60 kW	Unit 3 Greenhouse
IES-48E	64 kW	Woods Residence Hall
IES-49E	80 kW	Caldwell Building
IES-50E*	60 kW	Turlington Dorm
IES-51E	60 kW	Sullivan Dorm
IES-52E	80 kW	Becton
IES-53E	260 kW	Jordan Hall Addition
IES-54E	105 kW	CVM Unit No. 2 Building
IES-55E	25 kW	CVM Milking Parlor
IES-56E	30 kW	Bragaw Dorm
IES-57E	35 kW	North Hall
IES-58E	80 kW	Carmichael Gym
IES-59E	30 kW	Gold Dorm
IES-61E	60 kW	Weaver Lab
IES-63E	33 kW	Research III Building
IES-64E	200 kW	Nelson Hall
IES-65E	100 kW	Main Distribution Frame Building
IES-66E	25 kW	Mann Hall
IES-67E	20 kW	Grinnels Lab
IES-68E	30 kW	Avent Ferry A & B
IES-69E	30 kW	Avent Ferry D, E, F
IES-70E	125 kW	Partners I
IES-71E	100 kW	Pulp and Paper Building
IES-73E	30 kW	Ag Communications
IES-74E	250 kW	St Health Center
IES-75E	200 kW	Lee Dorm Sprinkler
IES-76E	200 kW	Carrol, Metcalf, and Bowen
IES-77E	6 kW	Portable Light Tower
IES-78E	12 kW	Manhole Asst. Trailer
IES-80E	35 kW	Weed Lab Telecom Hub
IES-81E	130 kW	Physteria Lab
IES-82E	30 kW	Biltmore Hall
IES-83E	30 kW	Broughton Hall
IES-84E	60 kW	Headhouse #1
IES-85E	60 kW	Headhouse #2
IES-86E	60 kW	Headhouse #4
IES-87E	250 kW	CCUP

Emission Source ID	Emission Source Description (size)	Facility Location
IES-97E	75 kW	Broughton #3
IES-98E	150 kW	B-tech
IES-99E	500 kW	Vaughn Towers
IES-102E	20 kW	Field House
IES-103E	30 kW	Flex Building
IES-106E	30 kW	Leazar
IES-107E	230 kW	Math & Stats Building
IES-108E	80 kW	Metcalf
IES-109E	400 kW	Murphy Football Center
IES-110E	100 kW	Sullivan Elevator
IES-112E	260 kW	CBC Boiler Plant
IES-113E	40 kW	Winston
IES-114E	50 kW	Daniels Hall
IES-115E	500 kW	Polk Hall
IES-116E*	400 kW	Riddick
IES-117E*	400 kW	South Gardner Addition
IES-120E	30 kW	Burlington Nuc Lab
IES-121E*	230 kW	Park Shops
IES-123E*	120 kW	Urban Affairs
Natural gas-fired emergency generators		
IES-24E	450 kW	Fox Science Teaching Lab
IES-62E	20 kW	Witherspoon Student Ctr.
IES-72E	5 kW	Avent Ferry Convention Ctr.
IES-79E	125 kW	Toxicology #1
IES-88E	15 kW	Page Hall
IES-91E	230 kW	Gardner Hall
IES-92E	20 kW	Harrelson Hall
IES-93E	33 kW	Williams Building
IES-94E	125 kW	Scott Building
IES-95E	100 kW	EHS Center
IES-96E	100 kW	Aquatic Lab at Pylon Dr.
IES-100E	15 kW	Dearstyne #1
IES-101E	15 kW	Dearstyne #2
IES-104E	60 kW	Greenheadhouse Unit 2
IES-105E	95 kW	Headhouse at Arboretum
IES-111E	150 kW	Toxicology #2
IES-118E	40 kW	Thompson Theater
IES-122E	10 kW	West Research Annex A
Miscellaneous		
IES-37	One printing shop	Main Campus

* NSPS, Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines) applicable sources.

ATTACHMENT
North Carolina State University

The following changes were made to NCSU Air Quality Permit No. 02977T19:

Old Page No.	New Page No.	Condition Number	Changes
3	3	Section 1 Table	<p>Include new equipment: ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, and ES-63.</p> <p>Modify descriptor for ES-17 to state that it is located at "Cates Steam Plant".</p>
Various	Various	Entire Permit	<p>Modify the "facility wide" to state "facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63)".</p> <p>Note: Emissions of sources ES-61 and ES-62 should have been excluded from facility-wide emissions requirements under PSD and NAA NSR avoidance in permit 02977T18, but they were not.</p> <p>The new sources (ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, and ES-63) in this permit revision are subject to PSD review so these sources need to be excluded from facility wide emissions calculations for PSD and NAA NSR avoidance conditions.</p>
-	31 through 37	Section 2.1 K.	Include this new Section for three new boilers (ES-2A, ES-3A, and ES-4A).
-	37 through 45	Section 2.1 L.	Include this new Section for two, new turbines (ES-1A and ES-1B).
-	45 through 49	Section 2.1 M.	Include this new Section for new emergency generator (ES-63).



Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
02977T20	02977T19	xx	May 31, 2014

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 2D and 2Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 2Q, 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: North Carolina State University
Facility ID: 9200290

Facility Site Location: Raleigh
City, County, State, Zip: Raleigh, Wake County, North Carolina 27695
Mailing Address: P. O. Box 7201
City, State, Zip: Raleigh, North Carolina 27695

Application Number: 9200290.09A
Complete Application Date: January 22, 2009

Primary SIC Codes: 8221

**Division of Air Quality,
Regional Office Address:** Raleigh Regional Office
3800 Barrett Drive, Suite 101
Raleigh, North Carolina 27609

Permit issued this the xx.

Donald R. van der Vaart, Ph.D., P.E., J.D., Chief, Air Permits Section
By Authority of the Environmental Management Commission

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- 2.3- Permit Shield for Nonapplicable Requirements

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ATTACHMENT

List of Acronyms

The Division of Air Quality (DAQ), the United States Environmental Protection Agency (EPA), and citizens as defined under the Federal Clean Air Act have the authority to enforce the terms, conditions, and limitations contained in this permit unless otherwise specified.

Under Title 15A NCAC 2Q, the operation of emission source(s) and associated air pollution control device(s) and appurtenances listed in this permit is based on plans, specifications, operating parameters, and other information as submitted in the Air Quality Permit Application.

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:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Boilers			
ES-01	One natural gas/No. 6 fuel oil-fired boiler (127.9 million Btu per hour maximum heat input capacity) located on Cates Avenue	NA	NA
ES-02	One natural gas/No. 6 fuel oil-fired boiler (141 million Btu per hour maximum heat input capacity) located on Yarborough Street	NA	NA
ES-03 ES-04	Two natural gas/No. 6 fuel oil-fired boilers (73.2 million Btu per hour maximum heat input capacity, each) located on Yarborough Street	NA	NA
ES-2A*, ES-3A* and ES-4A* (NSPS, Subpart D; PSD)	Three natural gas/No. 2 fuel oil-fired boilers (121.4 million Btu per hour nominal heat input rate each) located on Yarborough Street, each boiler equipped with dual-fuel low-NOx burners	NA	NA
ES-39 (NSPS, Subpart Dc)	One natural gas/No. 2 fuel oil-fired boiler (17.5 million Btu per hour maximum heat input capacity) located at the College of Veterinary Medicine #1	NA	NA
ES-12 ES-13 ES-14 (NSPS, Subpart Dc)	Three natural gas/No. 2 fuel oil-fired boilers (10.5 million Btu per hour maximum heat input capacity, each) located at the Monteith Research Center	NA	NA
ES-27 ES-28 (NSPS, Subpart Dc)	Two natural gas/No. 2 fuel oil-fired boilers (25.1 million Btu per hour maximum heat input capacity, each) located on Centennial Campus #1 and #2, respectively	NA	NA
ES-29	One natural gas/No. 2 fuel oil-fired boiler (8.4 million Btu per hour maximum heat input capacity) located on Centennial Campus #3	NA	NA
ES-41 ES-42	Two natural gas/No. 2 fuel oil-fired boilers (20.9 million Btu per hour maximum heat input capacity, each) located at Textiles A and B, respectively	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-31 ES-32 (NSPS, Subpart Dc)	Two natural gas/No. 2 fuel oil-fired boilers (16.33 million Btu per hour maximum heat input capacity, each) located at the College of Veterinary Medicine	NA	NA
ES-45 (NSPS, Subpart Dc)	One natural gas/No. 6 fuel oil-fired boiler including low-NOx burner equipment (92.1 million Btu per hour maximum heat input capacity) located on Centennial Campus Steam Plant	NA	NA
ES-46 ES-47	Two natural gas/No. 2 fuel oil-fired boilers (3.25 and 4.18 million Btu per hour maximum heat input capacities, respectively) located at Headhouse #1	NA	NA
ES-48 ES-49	Two natural gas/No. 2 fuel oil-fired boilers (3.1 million Btu per hour maximum heat input capacity, each) located at Headhouse #2	NA	NA
ES-50 ES-51	Two natural gas/No. 2 fuel oil-fired boilers (4.18 million Btu per hour maximum heat input capacity, each) located at Headhouse #3	NA	NA
ES-52 ES-53	Two natural gas/No. 2 fuel oil-fired boilers (2.94 million Btu per hour maximum heat input capacity, each) located at Headhouse #4	NA	NA
ES-54 ES-55	Two natural gas/No. 2 fuel oil-fired boilers (3.75 million Btu per hour maximum heat input capacity, each) located at Headhouse #5	NA	NA
ES-61 (NSPS, Subpart Dc)	One natural gas/No. 2 fuel oil-fired boiler (16.4 million Btu per hour maximum heat input capacity) located at the College of Veterinary Medicine Steam Plant	NA	NA
Emergency Generators			
ES-11	One diesel-fired emergency generator (1000 kW) located at the EGRC on Centennial Campus	NA	NA
ES-17	One diesel-fired emergency generator (750 kW) located at the Cates Steam Plant on the main campus	NA	NA
ES-21	One diesel-fired emergency generator (700 kW) located at Partners II on Centennial Campus	NA	NA
ES-25	One natural gas-fired emergency generator (800 kW) located at Centennial Engr. I-A	NA	NA
ES-33	One diesel-fired emergency generator (750 kW) located at the College of Veterinary Medicine Steam Plant	NA	NA
ES-36	One diesel-fired emergency generator (1250 kW) located at the College of Veterinary Medicine Wet Lab	NA	NA
ES-38	One diesel-fired emergency generator (900 kW) located at the Admin III Main Campus	NA	NA
ES-56	One diesel-fired emergency generator (600 kW) located at the David Clark Lab	NA	NA
ES-57 (NSPS, Subpart III)	One diesel-fired emergency generator (900 kW) located at the College of Veterinary Medicine Terry Center	NA	NA
ES-58	One diesel-fired emergency generator (1100 kW) located at the College of Veterinary Medicine	NA	NA
ES-59	One diesel-fired emergency generator (1100 kW) located at the College of Veterinary Medicine	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-60 (NSPS, Subpart III)	One diesel-fired emergency generator (550 kW) located at the College of Veterinary Medicine – Finger Barns	NA	NA
ES-62 (NSPS, Subpart III; MACT, Subpart ZZZZ)	One diesel-fired emergency generator (1000 kW) located at EB-III	NA	NA
ES-63* (NSPS, Subpart III; MACT, Subpart ZZZZ; PSD)	One diesel-fired emergency generator (1500 kW) located at Yarborough Street	NA	NA
Combined Heat and Power Units (Cogeneration Units)			
ES-1A* and ES-1B* (NSPS, Subpart KKKK; PSD)	<p>Two natural gas/No. 2 fuel oil-fired internal combustion turbines equipped with dual-fuel dry low-NO_x combustors and two heat recovery steam generators equipped with dual-fuel low-NO_x duct burners, located on Cates Avenue</p> <p>Simple-cycle mode of operation:</p> <p>66.3 million Btu per hour nominal heat input rate each when firing natural gas</p> <p>63.3 million Btu per hour nominal heat input rate each when firing No. 2 fuel oil</p> <p>Combined heat and power mode of operation:</p> <p>66.3 million Btu per hour nominal heat input rate each for gas turbine when firing natural gas and 27 million Btu per hour nominal heat input rate each for heat recovery steam generator when firing natural gas</p> <p>63.3 million Btu per hour nominal heat input rate each for gas turbine when firing No. 2 fuel and 27 million Btu per hour nominal heat input rate each for heat recovery steam generator when firing natural gas</p>	NA	NA
Miscellaneous Sources			
ES-20	One natural gas-fired chiller engine (880 hp) located at the College of Veterinary Medicine	NA	NA

*These emission sources are listed as a 15A NCAC 2Q .0501(c)(2) modification (Application Number 9200290.09A). The permit shield described in General Condition R does not apply and compliance certification as described in General Condition P is not required.

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, record keeping, and reporting requirements as specified herein:

- A. One natural gas/No. 6 fuel oil-fired boiler (ID No. ES-01) located on Cates Avenue
Three natural gas/No. 6 fuel oil-fired boilers (ID No. ES-02 through ES-04) located on Yarborough Street**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.22 pounds per million Btu heat input	15A NCAC 2D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	(ID No. ES-01 only) 20 percent opacity (ID Nos. ES-02 through ES-04 only) 40 percent opacity	15A NCAC 2D .0521
Particulate matter	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
PM ₁₀	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
Sulfur dioxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.2	15A NCAC 2Q .0317 (PSD Avoidance)
Carbon monoxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.3	15A NCAC 2Q .0317 (PSD Avoidance)
Nitrogen Oxides (as NO ₂)	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.4	15A NCAC 2Q .0317 (PSD Avoidance)
Volatile organic compounds	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 100 tons per consecutive 12-month period See Section 2.2 A.5	15A NCAC 2Q .0317 (NSR/NAA Avoidance)

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas or No. 6 fuel oil, that are discharged from these sources (**ID Nos. ES-01 through ES-04**) into the atmosphere shall not exceed 0.22 pounds per million Btu heat input.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas or No. 6 fuel oil in these sources (**ID Nos. ES-01 through ES-04**).

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

- a. Emissions of sulfur dioxide from these sources (**ID Nos. ES-01 through ES-04**) 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 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and 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 2D .0516.

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

- c. No monitoring/recordkeeping is required for sulfur dioxide emissions from the firing of natural gas in these sources (**ID Nos. ES-01 through ES-04**).
- d. The maximum sulfur content of any No. 6 fuel oil received and burned in these sources (**ID Nos. ES-01 through ES-04**) shall not exceed 2.1 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the fuel oil exceeds this limit.
- e. To assure compliance, the Permittee shall monitor the sulfur content of the No. 6 fuel oil by using fuel oil supplier certification per shipment received. The results of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format) on a quarterly basis and include the following information:
 - i. the name of the fuel oil supplier;
 - ii. the maximum sulfur content of the fuel oil received during the quarter;
 - iii. the method used to determine the maximum sulfur content of the fuel oil; and
 - iv. a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the No. 6 fuel oil fired during the period.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the oil is not maintained and recorded.

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

- f. No reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources (**ID Nos. ES-01 through ES-04**).
- g. The Permittee shall submit a summary report of the fuel oil supplier certifications 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.

3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source (**ID No. ES-01**) 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.
- b. Visible emissions from these sources (**ID Nos. ES-02 through ES-04**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 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 90 percent opacity.

Testing [15A NCAC 2D .2601]

- c. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3.a. or b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- d. No monitoring/recordkeeping is required for visible emissions from the firing of natural gas in these sources (**ID Nos. ES-01 through ES-04**).
- e. To assure compliance, once a day while firing No. 6 fuel oil the Permittee shall observe the emission points of these sources (**ID Nos. ES-01 through ES-04**) 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 days of absent observations per semi-annual period. If the emission sources are not operating, a record of this fact along with the corresponding date and time shall substitute for the daily observation. 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 NCA C2D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.3.a. or b. above.

If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

- f. 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 2D .0521 if these records are not maintained.

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

- g. No reporting for visible emissions is required from the firing of natural gas in these sources (**ID Nos. ES-01 through ES-04**).
- h. The Permittee shall submit a summary report of the observations 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.

B. One natural gas/No. 2 fuel oil-fired boiler (ID No. ES-39) located at the College of Veterinary Medicine #1

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.22 pounds per million Btu heat input	15A NCAC 2D .0503
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Sulfur dioxide	0.5 percent sulfur content by weight	15A NCAC 2D .0524 (40 CFR 60, Subpart Dc)
Particulate matter	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
PM ₁₀	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
Sulfur dioxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.2	15A NCAC 2Q .0317 (PSD Avoidance)
Carbon monoxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.3	15A NCAC 2Q .0317 (PSD Avoidance)
Nitrogen Oxides (as NO ₂)	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.4	15A NCAC 2Q .0317 (PSD Avoidance)
Volatile organic compounds	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 100 tons per consecutive 12-month period See Section 2.2 A.5	15A NCAC 2Q .0317 (NSR/NAA Avoidance)

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas or No. 2 fuel oil, that are discharged from this source (**ID No. ES-39**) into the atmosphere shall not exceed 0.22 pounds per million Btu heat input.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and 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 2D .0503.

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

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas or No. 2 fuel oil in this source (**ID No. ES-39**).

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

- a. Visible emissions from this source (**ID No. ES-39**) 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 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and 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 2D .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas or No. 2 fuel oil in this source (**ID Nos. ES-39**).

3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, monitoring, recordkeeping, and reporting requirements contained in Environmental Managements Commission Standard 15A NCAC 2D .0524 “New Source Performance Standards (NSPS)” as promulgated in 40 CFR Part 60, Subpart Dc, including Subpart A “General Provisions.”

Emission Limitations [15A NCAC 2D .0524]

- b. The maximum sulfur content of any fuel oil received and burned in this source (**ID No. ES-39**) shall not exceed 0.5 percent by weight.

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

- c. Sulfur dioxide emissions shall be monitored as follows:
 - i. Distillate Oil – Fuel supplier certification shall be used to demonstrate compliance as described under 40 CFR 60.46c(e).
- 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 records of the amounts of each fuel fired during each month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

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

- e. In addition to any other reporting required by 40 CFR 60.48c or notification requirements to the EPA, the Permittee is required to notify the DAQ in writing of the following:
 - i. a summary report, acceptable to the Regional Air Quality Supervisor, of the sulfur content of the distillate fuel oil fired, 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 as follows:
 - A. Distillate Oil – Fuel supplier certification shall include the following information:

- (1) the name of the oil supplier;
- (2) a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c; and
- (3) a certified statement signed by the owner or operator of an affected facility that the records of fuel supplier certification submitted represents all of the fuel fired during the semi annual period.

C. Three natural gas/No. 2 fuel oil-fired boilers (ID Nos. ES-12 through ES-14) located at the Monteith Research Center

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.21 pounds per million Btu heat input	15A NCAC 2D .0503
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Sulfur dioxide	0.5 percent sulfur content by weight	15A NCAC 2D .0524 (40 CFR 60, Subpart Dc)
Particulate matter	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
PM ₁₀	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
Sulfur dioxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.2	15A NCAC 2Q .0317 (PSD Avoidance)
Carbon monoxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.3	15A NCAC 2Q .0317 (PSD Avoidance)
Nitrogen Oxides (as NO ₂)	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.4	15A NCAC 2Q .0317 (PSD Avoidance)
Volatile organic compounds	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 100 tons per consecutive 12-month period See Section 2.2 A.5	15A NCAC 2Q .0317 (NSR/NAA Avoidance)

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas or No. 2 fuel oil, that are discharged from these sources (**ID Nos. ES-12 through ES-14**) into the atmosphere shall not exceed 0.21 pounds per million Btu heat input.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and 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 2D .0503.

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

- c. The Permittee shall record and maintain records of the amounts of each fuel burned during each month.

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

- d. The Permittee shall submit a summary report of the observations 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 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-12 through 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 nor more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and 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 2D .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas or No. 2 fuel oil in these sources (**ID Nos. ES-12 through ES-14**).

3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, monitoring, recordkeeping, and reporting requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 “New Source Performance Standards (NSPS)” as promulgated in 40 CFR Part 60, Subpart Dc, including Subpart A “General Provisions.”

Emission Limitations [15A NCAC 2D .0524]

- b. The maximum sulfur content of any fuel oil received and burned in these sources (**ID Nos. ES-12 through ES-14**) shall not exceed 0.5 percent by weight.

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

- c. Sulfur dioxide emissions shall be monitored as follows:
 - i. Distillate Oil – Fuel supplier certification shall be used to demonstrate compliance as described under 40 CFR 60.46c(e).
- 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 records of the amounts of each fuel fired during each month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524

if these records are not maintained.

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

- e. In addition to any other reporting required by 40 CFR 60.48c or notification requirements to the EPA, the Permittee is required to notify the DAQ in writing of the following:
 - i. a summary report, acceptable to the Regional Air Quality Supervisor, of the sulfur content of the distillate fuel oil fired, 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 as follows:
 - A. Distillate Oil – Fuel supplier certifications shall include the following information:
 - (1) the name of the oil supplier;
 - (2) a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c; and
 - (3) a certified statement signed by the owner or operator of an affected facility that the records of fuel supplier certification submitted represents all of the fuel fired during the semi annual period.

D. Two natural gas/No. 2 fuel oil-fired boilers (ID Nos. ES-27 and ES-28) located at Centennial Campus #1 and #2 respectively

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.21 pounds per million Btu heat input	15A NCAC 2D .0503
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Sulfur dioxide	0.5 percent sulfur content by weight	15A NCAC 2D .0524 (40 CFR 60, Subpart Dc)
Particulate matter	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
PM ₁₀	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
Sulfur dioxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.2	15A NCAC 2Q .0317 (PSD Avoidance)
Carbon monoxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.3	15A NCAC 2Q .0317 (PSD Avoidance)
Nitrogen Oxides (as NO ₂)	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.4	15A NCAC 2Q .0317 (PSD Avoidance)

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile organic compounds	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 100 tons per consecutive 12-month period See Section 2.2 A.5	15A NCAC 2Q .0317 (NSR/NAA Avoidance)

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas or No. 2 fuel oil, that are discharged from these sources (**ID Nos. ES-27 and ES-28**) into the atmosphere shall not exceed 0.21 pounds per million Btu heat input.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

- c. The Permittee shall record and maintain records of the amounts of each fuel burned during each month.

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

- d. The Permittee shall submit a summary report of the observations 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 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-27 and ES-28**) 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 nor more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas or No. 2 fuel oil in these sources (**ID Nos. ES-27 and ES-28**).

3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, monitoring, recordkeeping, and reporting requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS)" as

promulgated in 40 CFR Part 60, Subpart Dc, including Subpart A “General Provisions.”

Emission Limitations [15A NCAC 2D .0524]

- b. The maximum sulfur content of any fuel oil received and burned in these sources (**ID Nos. ES-27 and ES-28**) shall not exceed 0.5 percent by weight.

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

- c. Sulfur dioxide emissions shall be monitored as follows:
 - i. Distillate Oil – Fuel supplier certification shall be used to demonstrate compliance as described under 40 CFR 60.46c(e).
- 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 records of the amounts of each fuel fired during each month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

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

- e. In addition to any other reporting required by 40 CFR 60.48c or notification requirements to the EPA, the Permittee is required to notify the DAQ in writing of the following:
 - i. a summary report, acceptable to the Regional Air Quality Supervisor, of the sulfur content of the distillate fuel oil fired, 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 as follows:
 - A. Distillate Oil – Fuel supplier certifications shall include the following information:
 - (1) the name of the oil supplier;
 - (2) a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c; and
 - (3) a certified statement signed by the owner or operator of an affected facility that the records of fuel supplier certification submitted represents all of the fuel fired during the semi annual period.

**E. One natural gas/No. 2 fuel oil-fired boiler (ID No. ES-29) located at Centennial Campus #3
Two natural gas/No. 2 fuel oil-fired boilers (ID Nos. ES-41 and ES-42) located at Textile A and B, respectively**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.21 pounds per million Btu heat input	15A NCAC 2D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Particulate matter	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
PM ₁₀	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.2	15A NCAC 2Q .0317 (PSD Avoidance)
Carbon monoxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.3	15A NCAC 2Q .0317 (PSD Avoidance)
Nitrogen Oxides (as NO ₂)	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.4	15A NCAC 2Q .0317 (PSD Avoidance)
Volatile organic compounds	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 100 tons per consecutive 12-month period See Section 2.2 A.5	15A NCAC 2Q .0317 (NSR/NAA Avoidance)

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas or No. 2 fuel oil, that are discharged from these sources (**ID Nos. ES-29, ES-41, and ES-42**) into the atmosphere shall not exceed 0.21 pounds per million Btu heat input.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas or No. 2 fuel oil in these sources (**ID Nos. ES-29, ES-41, and ES-42**).

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

- a. Emissions of sulfur dioxide from these sources (**ID Nos. ES-29, ES-41, and ES-42**) 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 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of

natural gas or No. 2 fuel oil in these sources (ID Nos. ES-29, ES-41, and ES-42).

3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (ID Nos. ES-29, ES-41, and ES-42) 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 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas and No. 2 fuel oil in these sources (ID Nos. ES-29, ES-41 and ES-42).

F. Two natural gas/No. 2 fuel oil-fired boilers (ID Nos. ES-31 and ES-32) located at the College of Veterinary Medicine

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.21 pounds per million Btu heat input	15A NCAC 2D .0503
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Sulfur dioxide	0.5 percent sulfur content by weight	15A NCAC 2D .0524 (40 CFR 60, Subpart Dc)
Particulate matter	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
PM ₁₀	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
Sulfur dioxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.2	15A NCAC 2Q .0317 (PSD Avoidance)
Carbon monoxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.3	15A NCAC 2Q .0317 (PSD Avoidance)
Nitrogen Oxides (as NO ₂)	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.4	15A NCAC 2Q .0317 (PSD Avoidance)

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile organic compounds	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 100 tons per consecutive 12-month period See Section 2.2 A.5	15A NCAC 2Q .0317 (NSR/NAA Avoidance)

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas or No. 2 fuel oil, that are discharged from these sources (**ID Nos. ES-31 and ES-32**) into the atmosphere shall not exceed 0.21 pounds per million Btu heat input.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

- c. The Permittee shall record and maintain records of the amounts of each fuel burned during each month.

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

- d. The Permittee shall submit a summary report of the observations 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 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-31 and ES-32**) 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 nor more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas or No. 2 fuel oil in these sources (**ID Nos. ES-31 and ES-32**).

3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, monitoring, recordkeeping, and reporting requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 “New Source Performance Standards (NSPS)” as

promulgated in 40 CFR Part 60, Subpart Dc, including Subpart A “General Provisions.”

Emission Limitations [15A NCAC 2D .0524]

- b. The maximum sulfur content of any fuel oil received and burned in these sources (**ID Nos. ES-31 and ES-32**) shall not exceed 0.5 percent by weight.

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

- c. Sulfur dioxide emissions shall be monitored as follows:
 - i. Distillate Oil – Fuel supplier certification shall be used to demonstrate compliance as described under 40 CFR 60.46c(e).
- 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 records of the amounts of each fuel fired during each month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

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

- e. In addition to any other reporting required by 40 CFR 60.48c or notification requirements to the EPA, the Permittee is required to notify the DAQ in writing of the following:
 - i. a summary report, acceptable to the Regional Air Quality Supervisor, of the sulfur content of the distillate fuel oil fired, 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 as follows:
 - A. Distillate Oil – Fuel supplier certifications shall include the following information:
 - (1) the name of the oil supplier;
 - (2) a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c; and
 - (3) a certified statement signed by the owner or operator of an affected facility that the records of fuel supplier certification submitted represents all of the fuel fired during the semi annual period.

G. One natural gas/No. 2 fuel oil-fired boiler (ID No. ES-61) located at College of Veterinary Medicine Steam Plant

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.20 pounds per million Btu heat input	15A NCAC 2D .0503
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Sulfur dioxide	0.5 percent sulfur content by weight	15A NCAC 2D .0524 (40 CFR 60, Subpart Dc)

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas or No. 2 fuel oil, that are discharged from this source (**ID No. ES-61**) into the atmosphere shall not exceed 0.20 pounds per million Btu heat input.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

- c. The Permittee shall record and maintain records of the amounts of each fuel burned during each month.

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

- d. The Permittee shall submit a summary report of the observations 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 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source (**ID No. ES-61**) 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 nor more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas or No. 2 fuel oil in this source (**ID No. ES-61**).

3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, monitoring, recordkeeping, and reporting requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 “New Source Performance Standards (NSPS)” as promulgated in 40 CFR Part 60, Subpart Dc, including Subpart A “General Provisions.”

Emission Limitations [15A NCAC 2D .0524]

- b. The maximum sulfur content of any fuel oil received and burned in this source (**ID No. ES-61**) shall not exceed 0.5 percent by weight.

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

- c. Sulfur dioxide emissions shall be monitored as follows:
 - i. Distillate Oil – Fuel supplier certification shall be used to demonstrate compliance as described under 40 CFR 60.46c(e).
- 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 records of the amounts of each fuel fired during each month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

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

- e. In addition to any other reporting required by 40 CFR 60.48c or notification requirements to the EPA, the Permittee is required to notify the DAQ in writing of the following:
- i. a summary report, acceptable to the Regional Air Quality Supervisor, of the sulfur content of the distillate fuel oil fired, 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 as follows:
- A. Distillate Oil – Fuel supplier certifications shall include the following information:
- (1) the name of the oil supplier;
 - (2) a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c; and
 - (3) a certified statement signed by the owner or operator of an affected facility that the records of fuel supplier certification submitted represents all of the fuel fired during the semi annual period.

4. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR 60.8, whichever date comes first, the owner or operator of an affected facility that commences construction, reconstruction, or modification after **February 28, 2005**, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under 40 CFR 60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO₂ emissions is not subject to the PM limit in this Section.

H. Thirteen diesel-fired emergency generators (ID Nos. ES-11, ES-17, ES-21, ES-25, ES-33, ES-36, ES-38, ES-56 through ES-60, and ES-62) located in various buildings

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Hazardous air pollutants	(ID No. ES-62 only) Must meet the requirements of NSPS, Subpart IIII for compression ignition emergency generators located at an area source of HAPs	15A NCAC 2D .1111 (40 CFR 63, Subpart ZZZZ)
NMOC + NO _x , HC, NO _x , CO, PM	(ID Nos. ES-57, ES-60, and ES-62 only) Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	15A NCAC 2D .0524 (40 CFR 60, Subpart IIII)
Particulate matter	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
Sulfur dioxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.2	15A NCAC 2Q .0317 (PSD Avoidance)

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM ₁₀	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
Carbon monoxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.3	15A NCAC 2Q .0317 (PSD Avoidance)
Nitrogen Oxides (as NO ₂)	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.4	15A NCAC 2Q .0317 (PSD Avoidance)
Volatile organic compounds	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 100 tons per consecutive 12-month period See Section 2.2 A.5	15A NCAC 2Q .0317 (NSR/NAA Avoidance)

1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these sources (**ID Nos. ES-11, ES-17, ES-21, ES-25, ES-33, ES-36, ES-38, ES-56 through ES-60, and ES-62**) 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 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 H.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions when firing diesel fuel in these sources (**ID Nos. ES-11, ES-17, ES-21, ES-25, ES-33, ES-36, ES-38, ES-56 through ES-60, and ES-62**).

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

- a. Visible emissions from these sources (**ID Nos. ES-11, ES-17, ES-21, ES-25, ES-33, ES-36, ES-38, ES-56 through ES-60, and ES-62**) 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 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 H.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of diesel fuel in these sources (**ID Nos. ES-11, ES-17, ES-21, ES-25, ES-33, ES-36, ES-38, ES-56 through ES-60, and ES-62**).

3. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

- a. The Permittee shall comply with all applicable provisions contained in Environmental Management Commission Standard 15A NCAC 2D .1111 “Maximum Achievable Control Technology Standards (MACT)” as promulgated in 40 CFR 63, Subpart ZZZZ for new stationary reciprocating internal combustion engines located at area sources of hazardous air pollutants.

Emission Limitations/Testing/Monitoring/Recordkeeping/Reporting [15A NCAC 2D .1111]

- b. The Permittee shall meet the requirements of the final compression ignition (CI) New Source Performance Standard (NSPS, 40 CFR 60, Subpart IIII), as appropriate for this source (**ID No. ES-62**). Compliance with 40 CFR 60, Subpart IIII meets the compliance requirements of 40 CFR 63.6590(c), Subpart ZZZZ, for a new emergency RICE located at an area source of HAP emissions.
- c. Area sources of HAP emissions that become major sources – If an area source increases its emissions or its potential to emit such that it becomes a major source of HAP as defined in 40 CFR 63.2, the compliance dates are as follows:
 - i. any stationary RICE for which construction or reconstruction is commenced after the date when an area source becomes a major source of HAP, the IC RICE must be in compliance with 40 CFR 63, Subpart ZZZZ upon startup of the affected source;
 - ii. any stationary RICE for which construction or reconstruction is commenced before the area source becomes a major source of HAP must be in compliance with 40 CFR 63, Subpart ZZZZ within 3 years after the area source becomes a major source of HAPs.
 - iii. Owning or operating an affected source requires that the applicable notification requirements in 40 CFR 63.6645 and in 40 CFR 63, Subpart A are met.

4. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. The Permittee shall comply with all applicable provisions, including notifications, testing, monitoring, recordkeeping, and reporting requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 “New Source Performance Standards (NSPS)” as promulgated in 40 CFR 60 Subpart IIII “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines” including Subpart A “General Provisions” for these sources (**ID Nos. ES-57, ES-60, and ES-62**).

Testing/Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- b. For any emergency generators that are less than 30 liters per cylinder, the Permittee must purchase units that are certified by the manufacturer to meet the applicable engine design emission limits (40 CFR 60.4211(c)).
- c. The Permittee shall operate and maintain engines and control devices in accordance with the manufacturer’s written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the life of the engine (40 CFR 60.4206 and 60.4211(a)).
- d. No testing is required for units less than 30 liters per cylinder displacement that have been certified by the manufacturer to meet design limits.
- e. The Permittee shall install a nonresettable hour meter (40 CFR 60.4209(a)).

- f. Engines built after July 11, 2005 must burn diesel fuel with less than or equal to 500 ppm sulfur content beginning October 1, 2007 (40 CFR 60.4207(a)).
- g. Engines built after July 11, 2005 must burn diesel fuel with less than or equal to 15 ppm sulfur content beginning October 1, 2010 (40 CFR 60.4207(a)).

I. One natural gas-fired chiller engine (ID No. ES-20) located at the College of Veterinary Medicine

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Particulate matter	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
PM ₁₀	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
Sulfur dioxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.2	15A NCAC 2Q .0317 (PSD Avoidance)
Carbon monoxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.3	15A NCAC 2Q .0317 (PSD Avoidance)
Nitrogen Oxides (as NO ₂)	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.4	15A NCAC 2Q .0317 (PSD Avoidance)
Volatile organic compounds	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 100 tons per consecutive 12-month period See Section 2.2 A.5	15A NCAC 2Q .0317 (NSR/NAA Avoidance)

1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from this source (**ID No. ES-20**) 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 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions when firing natural gas in this source (**ID No. ES-20**).

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

- a. Visible emissions from this source (**ID No. ES-20**) 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 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in this source (**ID No. ES-20**).

J. One natural gas/No. 6 fuel oil-fired boiler including low-NO_x burner equipment (ID No. ES-45) located at Centennial Campus Steam Plant

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.20 pounds per million Btu heat input	15A NCAC 2D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input (while burning natural gas only)	15A NCAC 2D .0516
Visible emissions	20 percent opacity (while burning natural gas only)	15A NCAC 2D .0521
Sulfur dioxide	0.5 weight percent sulfur content (while burning No. 6 fuel oil only)	15A NCAC 2D .0524 (40 CFR 60, Subpart Dc)
Visible emissions	20 percent opacity (while burning No. 6 fuel oil only)	15A NCAC 2D .0524 (40 CFR 60, Subpart Dc)
Nitrogen oxides	Less than 40 tons per consecutive 12-month period	15A NCAC 2Q .0317 (PSD Avoidance)
Particulate matter	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
PM ₁₀	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.2	15A NCAC 2Q .0317 (PSD Avoidance)
Carbon monoxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.3	15A NCAC 2Q .0317 (PSD Avoidance)
Nitrogen Oxides (as NO ₂)	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.4	15A NCAC 2Q .0317 (PSD Avoidance)
Volatile organic compounds	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 100 tons per consecutive 12-month period See Section 2.2 A.5	15A NCAC 2Q .0317 (NSR/NAA Avoidance)

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas or No. 6 fuel oil that are discharged from this source (**ID No. ES-45**) into the atmosphere shall not exceed 0.20 pounds per million Btu heat input.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 J.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas or No. 6 fuel oil in this source (**ID No. ES-45**).

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

- a. Emissions of sulfur dioxide from this source (**ID No. ES-45**) while firing natural gas 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 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 J.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide from the firing of natural

gas in this source (**ID No. ES-45**).

3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source (**ID No. ES-45**) while firing natural gas 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 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 J.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in this source (**ID No. ES-45**).

4. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, monitoring, recordkeeping, and reporting requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 “New Source Performance Standards (NSPS)” as promulgated in 40 CFR 60, Subpart Dc, including Subpart A “General Provisions.”

Emission Limitations [15A NCAC 2D .0524]

- b. The maximum sulfur content of No. 6 fuel oil received and burned in this source (**ID No. ES-45**) shall not exceed 0.5 percent by weight.
- c. Visible emissions from this source (**ID No. ES-45**) while firing No. 6 fuel oil shall not be more than 20 percent opacity when averaged over a six-minute period, except for one six-minute period per hour of not more than 27 percent opacity.

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

- d. A continuous emissions monitor for the opacity of emissions from this source (**ID No. ES-45**) while firing No. 6 fuel oil shall be installed, calibrated, maintained, tested, and operated in accordance with 40 CFR 60 Appendix B “Performance Specifications” and Appendix F “Quality Assurance Procedures.” The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if COMs are not installed or the visible emissions exceed the limit given in Section 2.1 J.4.c. above.
- e. The Permittee shall monitor sulfur dioxide emissions by sampling and analyzing the oil in the fuel tank after each new shipment of oil is received as described under 40 CFR 60.46c(d)(2) to demonstrate compliance. Results of the fuel analysis taken after each new shipment of oil received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. The 30-day rolling average sulfur content shall be 0.5 percent by weight or less. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if sulfur dioxide emissions are not monitored as described above or any 30-day rolling average of sulfur content exceed 0.5 percent by weight.
- f. In addition to any other recordkeeping required by 40 CFR 60.48c or recordkeeping requirements of the EPA, the Permittee shall record and maintain records of the amounts of No. 6 fuel oil fired during each day and the amounts of natural gas fired during each month. The Permittee shall be

deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

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

- g. In addition to any other reporting required by 40 CFR 60.48c or notification requirements to the EPA, the Permittee is required to notify the DAQ in writing of the following:
- i. any excess opacity emission reports as measured by the continuous emission monitor (CEM), 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. If there are no excess emissions during the calendar six-month period, the Permittee shall submit a statement indicating that no excess emissions occurred during the reporting period;
 - ii. a summary report, acceptable to the Regional Air Quality Supervisor, of the sulfur content of the No. 6 fuel oil fired, 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 December and June. The report shall include the results of the No. 6 fuel oil sampling and analysis as required in Section 2.1 J.4.e above; and
 - iii. all instances of deviations from the requirements of this permit must be clearly identified.

**5. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 2D .0531: SOURCES IN NONATTAINMENT AREAS**

- a. In order to avoid applicability of 15A NCAC 2D .0531, nitrogen oxides emissions from this source (**ID No. ES-45**) shall be less than 40 tons per consecutive 12-month period.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 J.5.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531.

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

- c. The amount of No. 6 fuel oil and natural gas fired in this source (**ID No. ES-45**) shall not exceed 900,000 gallons and 571 million standard cubic feet per consecutive 12-month period, respectively. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531 if the amount of No. 6 fuel oil or natural gas fired in this source (**ID No. ES-45**) exceed either limit.
- d. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amount of each fuel fired. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531 if the amount of fuel used is not monitored.
- e. Calculations of nitrogen oxides emissions shall be made monthly and recorded in a logbook (written or electronic format) according to the following formula:

$$\text{NO}_x \text{ tons/month} = \frac{[(55 \text{ lbs}/10^3 \text{ gallons} \times B) + (100 \text{ lbs}/10^6 \text{ scf} \times C)]}{[2000 \text{ pounds per ton}]}$$

Where: B = amount of No. 6 fuel oil fired in gallons per month

C = amount of natural gas fired in standard cubic feet per month

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531 if the above records are not kept of the nitrogen oxides emissions from this source (**ID No. ES-45**) exceed the limit in Section 2.1 J.5.a above.

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

- f. The Permittee shall submit a semi-annual 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 previous six-month period between July and December and July 30 of each calendar year for the previous six-month period between January and June. The report shall contain the monthly nitrogen oxides emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

- K. Two natural gas/No. 2 fuel oil-fired boilers (ID Nos. ES-46 and ES-47) located at Headhouse #1
Two natural gas/No. 2 fuel oil-fired boilers (ID Nos. ES-48 and ES-49) located at Headhouse #2
Two natural gas/No. 2 fuel oil-fired boilers (ID Nos. ES-50 and ES-51) located at Headhouse #3
Two natural gas/No. 2 fuel oil-fired boilers (ID Nos. ES-52 and ES-53) located at Headhouse #4
Two natural gas/No. 2 fuel oil-fired boilers (ID Nos. ES-54 and ES-55) located at Headhouse #5**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.20 pounds per million Btu heat input	15A NCAC 2D .0503
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Particulate matter	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
PM ₁₀	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.1	15A NCAC 2Q .0317 (PSD Avoidance)
Sulfur dioxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.2	15A NCAC 2Q .0317 (PSD Avoidance)
Carbon monoxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.3	15A NCAC 2Q .0317 (PSD Avoidance)
Nitrogen Oxides (as NO ₂)	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period See Section 2.2 A.4	15A NCAC 2Q .0317 (PSD Avoidance)
Volatile organic compounds	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 100 tons per consecutive 12-month period See Section 2.2 A.5	15A NCAC 2Q .0317 (NSR/NAA Avoidance)

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas or No. 2 fuel oil that are discharged from these sources (**ID Nos. ES-46 through ES-55**) into the atmosphere shall not exceed 0.20 pounds per million Btu heat input each.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 K.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas or No. 2 fuel oil in these sources (**ID Nos. ES-46 through ES-55**).

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

- a. Emissions of sulfur dioxide from these sources (**ID Nos. ES-46 through ES-55**) shall not exceed 2.3 pounds per million Btu heat input each. 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 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 K.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas or No. 2 fuel oil in these sources (**ID Nos. ES-46 through ES-55**).

3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-46 through ES-55**) 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 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 K.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas or No. 2 fuel oil in these sources (**ID Nos. ES-46 through ES-55**).

L. Three natural gas/No. 2 fuel oil-fired boilers located on Yarborough Street (ID Nos. ES-2A, ES-3A, and ES-4A), each boiler equipped with dual-fuel low-NOx burners

The following table provides a summary of limits and/or standards for the emission source(s)

described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.20 pound per million Btu heat input	15A NCAC 2D .0503
Visible emissions	20 percent opacity, when firing natural gas	15A NCAC 2D .0521
Sulfur Dioxide, Nitrogen Oxides, and Particulate Matter (as opacity)	See Section 2.1 L. 3.	15A NCAC 2D .0524 (NSPS, Subpart Db)
PM/PM ₁₀ , SO ₂ , NO _x (as NO ₂), CO, and VOC	No specific requirements	15A NCAC 2D .0530

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas or No. 2 fuel oil that are discharged from these sources (**ID Nos. ES-2A, ES-3A, and ES-4A**) into the atmosphere shall not exceed 0.20 pounds per million Btu heat input each.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 L.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas or No. 2 fuel oil in these sources (**ID Nos. ES-2A, ES-3A, and ES-4A**).

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

- a. Visible emissions from these sources (**ID Nos. ES-2A, ES-3A, and ES-4A**) when firing natural gas only 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 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 L.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas or No. 2 fuel oil in these sources (**ID Nos. ES-2A, ES-3A, and ES-4A**).

3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. For boilers (**ID Nos. ES-2A, ES-3A, and ES-4A**), the Permittee shall comply with all applicable provisions for emissions standards, compliance and performance testing, emission monitoring, and reporting

and recordkeeping, in accordance with 15A NCAC 2D .0524 “New Source Performance Standards (NSPS)” as promulgated in 40 CFR 60, Subpart Db “Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units”, including Subpart A “General Provisions.”

Emission Limitations [15A NCAC 2D .0524]

- b. Sulfur dioxide emissions when firing No. 2 fuel oil or natural gas or a mixture of No. 2 fuel oil and natural gas in boilers (**ID Nos. ES-2A, ES-3A, and ES-4A**) shall not exceed 0.32 lb/million Btu. [§60.42b(k)(2)]
- c. Visible emissions when firing No. 2 fuel oil only or a mixture of No. 2 fuel oil and natural gas in boilers (**ID Nos. ES-2A, ES-3A, and ES-4A**) shall not be more than 20 percent opacity when averaged over a six-minute period, except for one six-minute period per hour of not more than 27 percent opacity. [§60.43b(f)]
- d. Nitrogen oxides emissions when firing only natural gas or only No. 2 fuel oil in boilers (**ID Nos. ES-2A, ES-3A, and ES-4A**) shall not exceed 0.20 lb/million Btu. [§60.44b(a)]
- e. Nitrogen oxides emissions when simultaneously burning a mixture of No. 2 oil and natural gas in boilers (**ID Nos. ES-2A, ES-3A, and ES-4A**) shall not exceed the emission limit as determined below:

$$E_n = \frac{EL_{go} H_{go}}{H_{go}}$$

where:

E_n = NO_x emission limit (expressed as NO₂), lb/million Btu

EL_{go} = Appropriate emission limit from paragraph (a)(1) of §60.44b for combustion of natural gas or distillate oil, lb/million Btu

H_{go} = Heat input from combustion of natural gas or distillate oil, lb/million Btu

[§60.44b(b)]

- f. SO₂ standard in Section 2.1 L.3.b. above shall apply at all times, including periods of startup, shutdown, and malfunction. [§60.42b(g)]
- g. Opacity standard in Section 2.1 L.3.c. above shall apply at all times, excluding periods of startup, shutdown or malfunction. [§60.43b(g) and §60.46b(a)]
- h. NO_x standards in Section 2.1 L.3.d. and e. above shall apply at all times, including periods of startup, shutdown, or malfunction. [§60.44b(h) and §60.46b(a)]
- i. Compliance with the SO₂ standard in Section 2.1 L.3.b. above or fuel oil sulfur limit shall be based upon 30-day rolling average basis. [§60.42b(e)]
- j. Compliance with the NO_x standards in Section 2.1 L.3.d. and e. above shall be based upon 30-day rolling average basis. [§60.44b(i)]

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

- k. The Permittee shall conduct initial performance test and submit a written report for NO_x for boilers (**ID Nos. ES-2A, ES-3A and ES-4A**) within 180 days of initial start-up for each boiler for both natural gas and No. 2 fuel oil or within 60 days after each boiler achieves maximum production for both natural gas and fuel oil, whichever occurs first. The Permittee shall conduct the initial performance test in accordance with continuous system for monitoring NO_x under §60.48b, and 15A NCAC 2D .2601 and General Condition JJ found in Section 3.

For the initial compliance test, NO_x from the steam-generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NO_x emission standards under §60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

If the 30-day average of NO_x emissions of the initial performance test is above the emission limit for NO_x in Section 2.1 L.3.d. or e., as applicable, or initial performance test is not performed, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.46b(e)(1)]

- l. Following the date on which the initial performance test in Section 2.1 L.3.k. is completed or required to be completed under §60.8, whichever date comes first, the Permittee shall upon request determine compliance with the NO_x standards in §60.44b through the use of a 30-day performance test (“subsequent performance test”). During periods when performance tests are not requested, NO_x emissions data collected pursuant to §60.48b(g)(1) or §60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO_x emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO_x emission data for the preceding 30 steam generating unit operating days.

The Permittee shall conduct the subsequent performance test in accordance with §60.46b, 15A NCAC 2D .2601, and General Condition JJ found in Section 3.

If any subsequent performance test (when required) is not performed or if the 30-day average of NO_x emissions for any subsequent performance test is above the emission limit for NO_x in Section 2.1 L.3.d. or e., as applicable, or the requirements of this Section 2.1 L.3.l. are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.46b(e)(4)]

- m. The Permittee shall conduct an initial performance test and any subsequent testing (when requested) for boilers (**ID Nos. ES-2A, ES-3A and ES-4A**) to demonstrate compliance with the opacity limit in Section 2.1 L.3.c. above. The Permittee shall conduct the opacity testing in accordance with 15A NCAC 2D .2601, General Condition JJ found in Section 3, and §60.46b(d).

If the results of initial performance test or any subsequent testing (when requested) are above the opacity limit in Section 2.1 L.3.c. above or initial performance test or any subsequent testing (when requested) is not conducted, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.46b(d)]

- n. The Permittee shall follow the applicable procedures in §60.49b(r) to demonstrate compliance with the exemption from PM limit included in §60.43b(h)(5).

[§60.46b(i)]

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

- o. The Permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring systems (COMS) on boilers (**ID Nos. ES-2A, ES-3A and ES-4A**) for measuring the opacity of emissions discharged to the atmosphere and record the output of the system. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if it does not comply with the requirements of this Section 2.1 L.3.o.

[§60.48b(a)]

- p. The Permittee of an affected facility (**ID Nos. ES-2A, ES-3A and ES-4A**) subject to a NO_x standard under §60.44b shall
 - i. Install, calibrate, maintain, and operate CEMS for measuring NO_x and O₂ (or CO₂) emissions discharged to the atmosphere, and shall record the output of the system; or
 - ii. If the Permittee has installed a NO_x emission rate CEMS to meet the requirements of Part 75 of this Chapter and is continuing to meet the ongoing requirements of Part 75 of this Chapter, that CEMS may be used to meet the requirements of this §60.48b, except that the owner or operator shall also meet the requirements of §60.49b. Data reported to meet the requirements of §60.49b shall not include data substituted using the missing data procedures in subpart D of part 75 of this Chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this Chapter.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if it does not comply with the requirements of this Section 2.1 L.3.p.

[§60.48b(b)]

- q. The CEMS required under §60.48b(b) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if it does not comply with the requirements of this Section 2.1 L.3.q.

[§60.48b(c)]

- r. The 1-hour average NO_x emission rates measured by the continuous NO_x monitor required by §60.48b(b) and required under §60.13(h) shall be expressed in lb/million Btu heat input and shall be used to calculate the average emission rates under §60.44b. The 1-hour averages shall be calculated using the data points required under §60.13(h)(2). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if it does not comply with the requirements of this Section 2.1 L.3.r.

[§60.48b(d)]

- s. The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems. The Permittee shall determine span value for NO_x when combusting natural gas or No. 2 fuel oil in boilers (**ID Nos. ES-2A, ES-3A and ES-4A**) in accordance with §60.48b(e)(2). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if it does not comply with the requirements of this Section 2.1 L.3.s.

[§60.48b(e)]

- t. When NO_x emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data shall be obtained by using standby monitoring systems, Method 7 of Appendix A of this part, Method 7A of Appendix A of this Part, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if it does not comply with the requirements of this Section 2.1 L.3.t.

[§60.48b(f)]

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

- u. The Permittee shall record and maintain records of the amounts of each fuel combusted in boilers (**ID Nos. ES-2A, ES-3A and ES-4A**) during each day and calculate the annual capacity factor individually for distillate oil and natural gas for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

[§60.49b(d)(1)]

- v. For an affected facility (**ID Nos. ES-2A, ES-3A and ES-4A**) subject to the opacity standard in §60.43b, the Permittee shall maintain records of opacity. In addition, the Permittee that elects to monitor emissions according to the requirements in §60.48b(a) shall maintain records according to the requirements specified in paragraphs (f)(1) through (3) of §60.49b, as applicable to the visible emissions monitoring method used. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

[§60.49b(f)]

- w. For an affected facility (**ID Nos. ES-2A, ES-3A and ES-4A**), the Permittee shall maintain records for each steam generating unit operating day of information as specified in §60.49b(g) for demonstrating compliance with NO_x standards under §60.44b. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

[§60.49b(g)]

- x. The Permittee shall obtain and maintain at the affected facility fuel receipts from the fuel supplier that certify that the No. 2 fuel oil meets the definition of distillate oil and gaseous fuel meets the definition of natural gas as defined in §60.41b and the applicable sulfur limit. For the purposes of this §60.49b(r), the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

[§60.49b(r)]

- y. The Permittee shall maintain all records required under §60.49b for a period of 2 years following the date of such record. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the records are not maintained for a period of 2 years following the date of such record.

[§60.49b(o)]

Reporting [15A NCAC 2Q .0508 (f) and § 60.49b]

- z. The Permittee shall submit a notification of the date construction of an affected facility (**ID Nos. ES-2A, ES-3A and ES-4A**) is commenced, postmarked no later than 30 days after such date. [§60.7(a)(1)]
 - aa. The Permittee shall submit a notification of the date of initial start-up of an affected facility (**ID Nos. ES-2A, ES-3A and ES-4A**), postmarked within 15 days after such date. This notification shall include:
 - i. The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility;
 - ii. If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §§60.42b(d)(1), 60.43b(a)(2), (a)(3)(iii), (c)(2)(ii), (d)(2)(iii), 60.44b(c), (d), (e), (i), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(i); and
 - iii. The annual capacity factor at which the Permittee anticipates operating the facility based on all fuels fired and based on each individual fuel fired.
- [§60.7(a)(3)]
- bb. The Permittee shall submit a notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with §60.13(c). Notification shall be postmarked not less than 30 days prior to such date. [§60.7(a)(5)]
 - cc. The Permittee of each affected facility (**ID Nos. ES-2A, ES-3A and ES-4A**) subject to the NO_x emission limits under §60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in Appendix B of this Part. The Permittee of each affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.
 - dd. The Permittee of each affected facility (**ID Nos. ES-2A, ES-3A and ES-4A**) subject to the NO_x standard of §60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of §60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under §60.48b(g)(2) and the records to be maintained under §60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall include all applicable requirements of § 60.49b(c).
 - ee. The Permittee shall submit excess emissions reports for NO_x for any excess emissions that occurred during the reporting period if it combusts natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 weight percent or less; or the affected facility has a heat input capacity of 73 MW (250 MMBtu/hr) or less and is required to monitor NO_x emissions on a continuous basis under §60.48b(g)(1) or steam generating unit operating conditions under §60.48b(g)(2).
 - ff. The Permittee of each affected facility (**ID Nos. ES-2A, ES-3A and ES-4A**) subject to the continuous monitoring requirements for NO_x under §60.48(b) shall submit reports containing the information recorded under paragraph (g) of §60.49b.
 - gg. The Permittee shall submit reports certifying that only very low sulfur oil meeting the definition in §60.41b, natural gas, wood, and/or other fuels that are known to contain insignificant amounts of sulfur were combusted in the affected facility during the reporting period.
 - hh. The Permittee shall submit a summary report of monitoring and recordkeeping activities

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.

M. Two natural gas/No. 2 fuel oil-fired internal combustion turbines equipped with dual-fuel dry low-NO_x combustors and two heat recovery steam generators equipped with dual-fuel low-NO_x duct burners (ID Nos. ES-1A and ES-1B)

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	0.20 lb/million Btu each [when duct burners are operating in heat recovery units]	15A NCAC 2D .0503
Visible Emissions	20 percent opacity each	15A NCAC 2D .0521
Nitrogen Oxides	25 ppm at 15 percent O ₂ each or 1.2 lb/MWh each [when firing natural gas in either combustion turbine only or both combustion turbine and heat recovery unit] 74 ppm at 15 percent O ₂ each or 3.6 lb/MWh each [when firing No. 2 fuel oil in either combustion turbine only or both combustion turbine and heat recovery unit] 150 ppm at 15 percent O ₂ each or 8.7lb/MWh each [when firing natural gas or No. 2 fuel oil, or turbine is operating at less than 75 percent peak load, or turbine is operating at less than 0°F] 54 ppm at 15 percent O ₂ each or 0.86 lb/MWh each [when heat recovery unit is operating independent of the combustion turbine]	15A NCAC 2D .0524 [NSPS Subpart KKKK]
PM/PM ₁₀ , SO ₂ , NO _x (as NO ₂), CO, and VOC	No specific requirements	15A NCAC 2D .0530

1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas or No. 2 fuel oil that are discharged from these sources (duct burner of heat recovery unit of each combustion turbine, **ID Nos. ES-1A and ES-1B**) into the atmosphere shall not exceed 0.20 pound per million Btu heat input. [15A NCAC 2D .0503(a)]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 M. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas and No. 2 fuel oil in these sources (duct burner of heat recovery unit of each combustion turbine, **ID Nos. ES-1A and ES-1B**).

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

- a. Visible emissions from these sources (**ID Nos. ES-1A and ES-1B**) 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. [15A NCAC 02D .0521 (d)]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 M. 2. a., 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 natural gas or No. 2 fuel oil in these sources (**ID Nos. ES-1A and ES-1B**).

3. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS [40 CFR PART 60 SUBPART KKKK)

- a. For combustion turbines (**ID Nos. ES-1A and ES-1B**), the Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 2D .0524 “New Source Performance Standards (NSPS)” as promulgated in 40 CFR Part 60 Subpart KKKK “Standard of Performance for Stationary Combustion Turbines”, including Subpart A “General Provisions.”

[15A NCAC 2D .0524]

Emission Limitations

- b. NOx emissions (except during startup, shutdowns, and malfunction) from each combustion turbine (**ID Nos. ES-1A and ES-1B**) firing natural gas shall not exceed 25 ppm at 15 percent O₂ or 1.2 lb/MWh, when combustion turbine only is operating or when both combustion turbine and heat recovery unit are operating.

NOx emissions (except during startup, shutdowns, and malfunction) from each combustion turbine (**ID Nos. ES-1A and ES-1B**) firing No. 2 fuel oil shall not exceed 74 ppm at 15 percent O₂ or 3.6 lb/MWh, when combustion turbine only is operating or when both combustion turbine and heat recovery unit are operating.

NOx emissions (except during startup, shutdowns, and malfunction) from each combustion turbine (**ID Nos. ES-1A and ES-1B**) firing natural gas or No. 2 fuel oil shall not exceed 150 ppm at 15 percent O₂ or 8.7 lb/MWh, when turbine is operating at less than 75 percent peak load or the turbine is operating at less than 0°F.

NOx emissions (except during startup, shutdowns, and malfunction) from each combustion turbine (**ID Nos. ES-1A and ES-1B**) firing natural gas or No. 2 fuel oil shall not exceed 150 ppm at 15 percent O₂ or 8.7 lb/MWh, when only heat recovery unit is operating.

The Permittee has chosen to comply with NOx emission concentration limits.

[§60.4320]

- c. If the total heat input to each combustion turbine (**ID Nos. ES-1A and ES-1B**) is greater than or equal to 50 percent natural gas, the Permittee shall meet the corresponding NOx emission limit in Section 2.1 M.3.b. above for natural gas when the Permittee is burning that fuel. Similarly, when the total heat input to each combustion turbine (**ID Nos. ES-1A and ES-1B**) is greater than 50 percent No. 2 fuel oil, the Permittee shall meet the corresponding emission limit in Section 2.1 M.3.b. above for No. 2 fuel oil for the duration of the time that the Permittee burns No. 2 fuel oil.

[§60.4325]

- d. SO₂ emissions (except during startup, shutdowns, and malfunction) from the combustion turbines (**ID Nos. ES-1A and ES-1B**) shall not exceed 0.9 lb/MWh gross output each.

Alternatively, the Permittee shall not allow any fuel to be burned in the combustion turbines (**ID Nos. ES-1A and ES-1B**), which contains total potential sulfur emissions in excess of 0.06 lb/million Btu heat input each (fuel sulfur content limit).

The Permittee has chosen to comply with fuel sulfur content limit.

[§60.4330]

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

NOx Testing for Simple-cycle Mode of Operation

- e. The Permittee shall conduct initial performance test and submit a written report for NOx for one

of the combustion turbines (**ID Nos. ES-1A and ES-1B**)¹ within 180 days of initial start-up of the first combustion turbine (either **ES-1A and ES-1B**) in simple-cycle mode for both natural gas and No. 2 fuel oil firing or within 60 days after the unit achieves maximum production (either **ES-1A and ES-1B**) in simple-cycle mode for both natural gas and fuel oil firing, whichever occurs first. The Permittee shall conduct the initial performance test in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3.

- f. The Permittee is required to perform subsequent annual testing (no more than 14 calendar months following the previous performance test) for NO_x in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3, if the Permittee is not using water injection to comply with NO_x emission limit in Section 2.1 M.3.b. above.

As an alternate to subsequent annual tests requirement in this Section 2.1 M.3.f., the Permittee may install, calibrate, maintain and operate either continuous emission monitoring or continuous parameter monitoring for NO_x on combustion turbines (**ID Nos. ES-1A and ES-1B**).

If the Permittee elects to install NO_x CEMS on combustion turbines (**ID Nos. ES-1A and ES-1B**), the performance evaluation of the CEMS may either be conducted separately or (as described in §60.4405), as part of the initial performance test. Data collected during the CEMS RATA may be used to demonstrate compliance for NO_x. The CEMS shall be certified according to Part 60, Section 60.4345. A NO_x CEMS that is installed and certified according to Appendix A of Part 75 is also acceptable for use under this Subpart.

If the NO_x emission result from any annual performance test is less than or equal to 75 percent of the NO_x emission limit in Section 2.1 M.3.b. above, the frequency of testing can be reduced to once every two years for subsequent performance tests. If the results of any subsequent performance test exceed 75 percent of the NO_x emission limit, the Permittee shall resume the annual performance tests.

Each performance test (initial and subsequent) for NO_x shall be conducted at ± 25 percent of 100 percent peak load or at the highest achievable load point if at least 75 percent peak load cannot be achieved in practice. Three runs shall be required for each performance test (initial and subsequent) and each run shall last for a minimum 20 minutes. Separate performance testing is required for each fuel. The ambient temperature for each test run shall be above 0^oF.

If three-run arithmetic average of NO_x emissions from any performance test is above the emission limit for NO_x in Section 2.1 M.3.b. above or initial and any subsequent stack tests are not performed, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

NO_x Testing for Combined Heat and Power Mode of Operation

- g. The Permittee shall conduct initial performance test and submit a written report for NO_x for one of the combustion turbines (**ID Nos. ES-1A and ES-1B**)² within 180 days of initial start-up of the first combustion turbine (either **ES-1A and ES-1B**) in combined heat and power mode for

¹ DAQ is requiring initial performance test on only one of two combustion turbines (**ID Nos. ES-1A and ES-1B**). This requirement is contingent upon the stack test results of the tested turbine showing that the margin of compliance with NO_x emission limit is high.

² DAQ is requiring initial performance test on only one of two combustion turbines (ID Nos. ES-13 and ES-14). This requirement is contingent upon the stack test results of the tested turbine showing that the margin of compliance with NO_x emission limit is high.

both natural gas and No. 2 fuel oil firing or within 60 days after the unit achieves maximum production (either **ES-1A and ES-1B**) in combined heat and power mode for both natural gas and fuel oil firing, whichever occurs first. The Permittee shall conduct the initial performance test in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3.

- h. The Permittee is required to perform subsequent annual testing (no more than 14 calendar months following the previous performance test) for NO_x in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3, if the Permittee is not using water injection to comply with NO_x emission limit in Section 2.1 M.3.b. above. As an alternate to subsequent annual tests requirement, the Permittee may install, calibrate, maintain and operate either continuous emission monitoring or continuous parameter monitoring for NO_x on combustion turbines (**ID Nos. ES-1A and ES-1B**).

If the Permittee elects to install NO_x CEMs on combustion turbines (**ID Nos. ES-1A and ES-1B**), the performance evaluation of the CEMS may either be conducted separately or (as described in §60.4405), as part of the initial performance test. Data collected during the CEMS RATA may be used to demonstrate compliance for NO_x. The CEMS shall be certified according to Part 60, Section 60.4345. A NO_x CEMS that is installed and certified according to Appendix A of Part 75 is also acceptable for use under this Subpart.

If the NO_x emission result from any annual performance test is less than or equal to 75 percent of the NO_x emission limit in Section 2.1 M.3.b. above, the frequency of testing can be reduced to once every two years for subsequent performance tests. If the results of any subsequent performance test exceed 75 percent of the NO_x emission limit, the Permittee shall resume the annual performance tests.

Each performance test (initial and subsequent) for NO_x shall be conducted at ± 25 percent of 100 percent peak load or at the highest achievable load point if at least 75 percent peak load cannot be achieved in practice. Three runs shall be required for each performance test (initial and subsequent) and each run shall last for a minimum 20 minutes. Separate performance testing is required for each fuel. The ambient temperature for each test run shall be above 0⁰F.

For combined heat and power systems with supplemental heat (duct burner), the Permittee shall measure the total NO_x emissions after the duct burner rather than directly after the turbine. The duct burner shall be in operation during the performance test.

If three-run arithmetic average of NO_x emissions from any performance test is above the emission limit for NO_x in Section 2.1 M.3.b. above or initial and subsequent stack tests (when required) are not performed, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.8, and §§60.4340, 60.4400 and 60.4405]

- i. The Permittee shall conduct the initial performance test for SO₂ on one of the combustion turbines (**ID Nos. ES-1A and ES-1B**) in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3, within 180 days of initial start-up of combustion turbines (**ID Nos. ES-1A and ES-1B**)³ for both natural gas and fuel oil firing or within 60 days after the unit achieves

³ DAQ is requiring initial performance test on only one of two combustion turbines (**ID Nos. ES-1A and ES-1B**). This requirement is contingent upon the stack test results of the tested turbine showing that the margin of compliance with SO₂ emission limit is high.

maximum production (**ID Nos. ES-1A and ES-1B**) for both natural gas and fuel oil firing, whichever occurs first. The Permittee shall conduct each subsequent test on combustion turbines (**ID Nos. ES-1A and ES-1B**) in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3 for SO₂ on an annual basis (no more than 14 calendar months following the previous performance test) for both natural gas and fuel oil firing.

If the results of any performance test are above the emission limit for SO₂ in Section 2.1 M.3.d. above or any stack test is not performed, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

The Permittee can opt not to perform any stack tests (either initial or subsequent annual tests) to demonstrate compliance with SO₂ emission limit and can instead opt for fuel sulfur determination as per Section 2.1. M.3.m. below to comply with the SO₂ emission limit. If the Permittee chooses to opt for fuel sulfur determination to comply with the SO₂ emission limit, the Permittee shall perform monitoring in accordance with Section 2.1 M.3.m. below.

[§60.8, and §§60.4360 and 60.4415]

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

- j. The Permittee shall operate and maintain the combustion turbines (**ID Nos. ES-1A and ES-1B**) including dry low NO_x burners and any other monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions and in accordance with manufacturer's guidelines at all times including during start-up, shutdown, and malfunction.

[§60.4333]

- k. As an alternate to the annual performance tests to demonstrate continuous compliance in Section 2.1 L.f. and h. above for, the Permittee can install, calibrate, maintain and operate a NO_x CEM as per §§60.4335(b) and 60.4345 or the Permittee can install, calibrate, maintain and operate NO_x continuous parameter monitoring system measuring appropriate parameters to determine whether the combustion turbines (**ID Nos. ES-1A and ES-1B**) are operating in low-NO_x mode, or instead upon DAQ approval, the Permittee can perform parametric monitoring described in Section 2.3 of Part 75 appendix E or in §75.19(c)(1)(iv)(H), if the combustion turbine (**ID Nos. ES-1A and ES-1B**) are also regulated under Part 75.

If the NO_x CEMs do not comply with the requirements of §§60.4335(b) and 60.4345 or the NO_x emissions (except during startup, shutdowns, and malfunction) from the combustion turbines (**ID Nos. ES-1A and ES-1B**) exceed the emission limit in Section 2.1 M.3.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

If NO_x continuous parameter monitoring systems are not operating or the NO_x continuous parameter monitoring systems indicate that the combustion turbine is not operating in a low-NO_x mode, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

If the Permittee does not comply with the requirements in Section 2.3 of Part 75 Appendix E or §75.19(c)(1)(iv)(H) or if the NO_x emissions (except during startup, shutdowns, and malfunction) from combustion turbines (**ID Nos. ES-1A and ES-1B**) exceed the NO_x emission limit in Section 2.1 M.3.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4335 and 60.4340]

- l. Appropriate parameters to determine whether the unit is operating in low-NO_x mode, required to be continuously monitored in §§60.4335 and 60.4340, shall be monitored during the performance test required under §60.8, to establish acceptable values and ranges. The Permittee may supplement the performance test data with engineering analyses, design specifications, manufacturer's recommendations and other relevant information to define the acceptable parametric ranges more precisely. The Permittee shall develop and keep on-site a parameter monitoring plan, which explains the procedures used to document proper operation of the NO_x emission controls. The parameter monitoring plan shall contain all elements of §60.4355(a)(1) through (a)(6). As an alternative to a parameter monitoring plan in this Section, the Permittee can develop and keep on-site a QA plan as described in §75.19(e)(5) or in Section 2.3 of Appendix E to Part 75 and Section 1.3.6 of Appendix B to Part 75, if the combustion turbines (**ID Nos. ES-1A and ES-1B**) are also regulated under Part 75.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the parameter monitoring plan is not developed or kept on-site.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the QA plan (alternative to a parameter monitoring plan) as described in §75.19(e)(5) or in Section 2.3 of Appendix E to Part 75 and Section 1.3.6 of Appendix B to Part 75 is not developed or kept on-site.

[§60.4355]

- m. If the Permittee opts to determine fuel sulfur to comply with the fuel sulfur content limit in Section 2.1 M.3.d. above, the Permittee shall monitor total sulfur content of the fuel being fired in the combustion turbines (**ID Nos. ES-1A and ES-1B**), except as provided in §60.4365 (See Section 2.1 M.3.n. below).

The sulfur content of the fuel shall be determined using total sulfur methods in §60.4415. Alternatively, the Permittee can use methods in §60.4360 if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the fuel sulfur content limit in Section 2.1.M.3.d. above.

The Permittee shall determine sulfur content value of natural gas once per unit operating day if the fuel is supplied without intermediate bulk storage and the Permittee is not demonstrating fuel sulfur content using the options in §60.4365.

The Permittee can develop custom fuel schedules to determine total sulfur content of gaseous fuels or the Permittee can use one of two approved custom schedules without prior EPA approval as per §60.4360(c).

If fuel sulfur determination from any fuel monitoring occurring in any unit operating hour, results in SO₂ emissions (except during startup, shutdowns, and malfunction) exceeding emission limit in Section 2.1 M.3.d. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§§60.4360, 60.4370, and 60.4415]

- n. As an alternate to Section 2.1 M.3.m. above, the Permittee can choose not to monitor the total potential sulfur emissions of the fuel combusted in the turbines (**ID Nos. ES-1A and ES-1B**), if it can be demonstrated that the potential sulfur emissions do not exceed 0.06 lb SO₂/million Btu emission limit.

The Permittee can perform this demonstration by using the fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the fuel, specifying that the maximum total sulfur content for oil use is 0.05 weight percent (500 ppmw), the total sulfur content for natural gas use is 20 grains of sulfur or less per 100 standard cubic feet and has the potential sulfur emissions of less than 0.06 lb SO₂/million Btu.

The other option for this demonstration is through representative fuel sampling data showing that the potential sulfur emissions of the fuel does not exceed 0.06 lb SO₂/million Btu. In this case, the Permittee shall provide at a minimum the amount of data in Section 2.3.1.4 or 2.3.2.4. of Appendix D of Part 75.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the Permittee does not make the above demonstration for natural gas and fuel oil, or the demonstration indicate that the total sulfur content of natural gas and fuel oil exceed the sulfur content limit of 20 grains per 100 standard cubic feet and 0.05 weight percent (500 ppmw), respectively, or the SO₂ emissions excluding the emissions during start-up, shutdown, and malfunction, from the combustion turbines (**ID Nos. ES-1A and ES-1B**) exceed the emission limit in Section 2.1 M.3.d. above.

[§§60.4365]

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

- o. The Permittee shall submit a notification of the date construction of an affected facility (**ID Nos. ES-1A and ES-1B**) is commenced, postmarked no later than 30 days after such date. [§60.7(a)(1)]
- p. The Permittee shall submit a notification of the date of initial start-up of an affected facility (**ID Nos. ES-1A and ES-1B**), postmarked within 15 days after such date. [§60.7(a)(3)]
- q. The Permittee shall submit a notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with §60.13(c). Notification shall be postmarked not less than 30 days prior to such date. [§60.7(a)(5)]
- r. The Permittee shall submit reports of excess emissions and monitor downtime in accordance with §60.7(c) for the combustion turbines (**ID Nos. ES-1A and ES-1B**). The Permittee shall report excess emissions for all periods of operation, including start-up, shutdown, and malfunction. These reports shall be postmarked by the 30th day following the end of each 6-month period. [§§60.4375(a) and 60.4395]
- i. For turbines required to monitor combustion parameters or parameters that document proper operation of the NO_x emission controls:
- (A) An excess emission is a 4-hour rolling unit operating hour average in which any monitored parameter does not achieve the target value or is outside the acceptable range defined in the parameter monitoring plan for the unit.
- (B) A period of monitor downtime is a unit operating hour in which any of the required parametric data are either not recorded or are invalid.
- ii. If the Permittee chooses the option to monitor the sulfur content of the fuel, excess emissions and monitoring downtime shall be defined as follows [§60.4385]:
- (A) For samples of gaseous fuel, an excess emission occurs each unit operating hour included

in the period beginning on the date and hour of any sample for which the sulfur content of the fuel being fired in the combustion turbine exceeds the applicable limit and ending on the date and hour that a subsequent sample is taken that demonstrates compliance with the sulfur limit.

- (B) If the option to sample each delivery of fuel oil has been selected, the Permittee shall immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.05 weight percent. The Permittee shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and the Permittee shall evaluate excess emissions according to this Section 2.1 L.3.r.iv. When all of the fuel from the delivery has been burned, the Permittee may resume using the as-delivered sampling option.
- (C) A period of monitor downtime begins when a required sample is not taken by its due date. A period of monitor downtime also begins on the date and hour of a required sample, if invalid results are obtained. The period of monitor downtime ends on the date and hour of the next valid sample. The Permittee shall submit a written report of the results of each performance test required in §60.4340(a) before the close of business on the 60th day following the completion of the performance test. [§60.4375(b)]
- s. The Permittee shall submit a summary report of monitoring and record keeping activities 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.

N. One diesel-fired emergency generator located at Yarborough Street (ID No. ES-63)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible Emissions	20 percent opacity except during start-up, shutdown and malfunction	15A NCAC 2D .0521
HC, NO _x , CO, PM, and Sulfur Dioxide	See Section 2.1 N.2.	15A NCAC 2D .0524 [40 CFR 60 Subpart III]
Hazardous Air Pollutants	See Section 2.1 N.3.	15A NCAC 2D .1111 [40 CFR 63 Subpart ZZZZ]
PM/PM ₁₀ , SO ₂ , NO _x (as NO ₂), CO, and VOC	No specific requirements	15A NCAC 2D .0530

1. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source (**ID No. ES-63**) 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. [15A NCAC 02D .0521 (d)]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit

given in Section 2.1 N.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of diesel fuel in this source (**ID No. ES-63**).

2. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS [40 CFR 60 SUBPART III]

- a. The Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart III, including Subpart A "General Provisions."

[15A NCAC 2D .0524]

Emission Standards

- b. The Permittee shall comply with the following emission standards for emergency generator (**ID No. ES-63**):

NMHC + NO_x: 6.4 g/kW-hr

CO: 3.5 g/kW-hr

PM: 0.2 g/kW-hr

[§§ 60.4205(b) and 60.4202(a)(2), and §89.112(a)]

- c. The Permittee shall use diesel fuel with sulfur content of less than 500 ppm beginning October 1, 2007 in emergency generator (**ID No. ES-63**). The Permittee shall use diesel fuel with sulfur content of less than 15 ppm beginning October 1, 2010 in emergency generator (**ID No. ES-63**).

[§60.4207(a) and (b), and §80.510(a) and (b)]

Testing [15A NCAC 2D .2601]

- d. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limits given in Section 2.1 N.2.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- e. Emergency generator (**ID No. ES-63**) shall be equipped with a non-resettable hour meter prior to startup. If each emergency generator (**ID No. ES-63**) is not equipped with a non-resettable hour meter prior to startup, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4209(a)]

- f. If the emergency generator (**ID No. ES-63**) is equipped with diesel particulate filters to comply with the emission standards in Section 2.1 N.2.b. above, the Permittee shall install backpressure monitor on diesel particulate filter that notifies the Permittee when the high backpressure limit of

the engine is approached. If diesel particulate filter is not equipped with backpressure monitor or the Permittee is not monitoring the backpressure of diesel particulate filter, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4209(b)]

- g. The Permittee shall operate and maintain compression ignition (CI) internal combustion engine (ICE) of emergency generator (**ID No. ES-63**) over the entire life of the engine in accordance with the manufacturer's written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. The Permittee may only change engine settings that are permitted by the manufacturer. The Permittee shall also meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section 2.1 N.2.g. are not complied with.

[§60.4206 and §60.4211(a)]

- h. For emergency generator (**ID No. ES-63**), the Permittee shall purchase 2007 model year and later CI ICE, certified to the emission standards in §60.4205(b), for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's specifications. If the installed CI ICE of the emergency generator (**ID No. ES-63**), is not certified to meet the emission standards in §60.4205(b) or the CI ICE is not configured according to the manufacturer's specifications, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

[§60.4211(c)]

- i. The Permittee may operate the emergency stationary CI ICE of the emergency generator (**ID No. ES-63**) for maintenance checks and readiness testing for up to 100 hours per year provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Operation during an actual emergency shall not be subject to a limit on hours. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. Because the Permittee is required to comply with emission standards under §60.4205 for CI engines of emergency internal combustion engine and not under §60.4204, any operation other than emergency operation, and maintenance and testing as allowed in §60.4211 is prohibited. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if the requirements in this Section 2.1 N.2.i. are not complied with.

If the emergency stationary CI ICE of emergency generator (**ID No. ES-63**) meets the applicable emission standards for non-emergency stationary CI ICE in §60.4204, the limitation on operation of CI ICE (100 hrs per year for maintenance checks and readiness testing) do not apply.

[§60.4211(e)]

- j. Starting with the model years in Table 5 to NSPS Subpart IIII, if the emergency stationary CI ICE of emergency generator (**ID No. ES-63**) does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the nonresettable hour

meter. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if these records are not maintained.

[§60.4214(b)]

- k. If the emergency stationary CI ICE of emergency generator (**ID No. ES-63**) is equipped with diesel particulate filter, the Permittee shall keep records of any corrective action taken after the backpressure monitor has notified the Permittee that the high backpressure limit of the engine is approached. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524, if these records are not maintained.

[§60.4214(c)]

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

- l. No initial notifications under §60.7(a)(1) and (a)(3) are required for emergency stationary CI ICE of emergency generator (**ID No. ES-63**).

[§60.4214(b)]

- m. The Permittee shall submit a summary report of monitoring and recordkeeping activities 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 shall be clearly identified.

3. 15A NCAC 2D .1111 MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY [40 CFR 63 SUBPART ZZZZ]

- a. The Permittee shall comply with all applicable provisions, including the requirements for emission limitations, testing, monitoring, record keeping, notification, and reporting, contained in Environmental Management Commission Standard 15A NCAC 2D .1111 “Maximum Achievable Control Technology” as promulgated in 40 CFR Part 63 Subpart ZZZZ “National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)” including Subpart A “General Provisions.”

[15A NCAC 2D .1111]

- b. The Permittee shall meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting all applicable requirements of 40 CFR 60 Subpart IIII (See Section 2.1 N.2. above) for RICE of emergency generators (**ID No. ES-63**). No further requirements shall apply to RICE of emergency generator (**ID No. ES-63**) under 40 CFR 63 Subpart ZZZZ.

[§63.6590(c)]

2.2- Multiple Emission Source(s) Specific Limitations and Conditions

- A. Facility-wide affected sources (including insignificant activities listed in the attachment to the cover letter to this permit)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63) less than 250 tons per consecutive 12-month period	15A NCAC 2Q .0317 (PSD Avoidance)
PM ₁₀	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period	15A NCAC 2Q .0317 (PSD Avoidance)
Sulfur dioxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period	15A NCAC 2Q .0317 (PSD Avoidance)
Carbon monoxide	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period	15A NCAC 2Q .0317 (PSD Avoidance)
Nitrogen Oxides (as NO ₂)	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 250 tons per consecutive 12-month period	15A NCAC 2Q .0317 (PSD Avoidance)
Volatile organic compounds	Facility-wide (except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63), less than 100 tons per consecutive 12-month period	15A NCAC 2Q .0317 (NSR/NAA Avoidance)

**1. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 2D .0530(g) for major sources and major modifications, the facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) emissions of both particulate matter and PM₁₀ shall each be less than 250 tons per consecutive 12-month period.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2601 and 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 2D .0530.

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

- c. The hours of operation for each emergency generator shall not exceed 500 hours per consecutive 12-month period.
- d. The Permittee shall record monthly and total annually the hours of operation for each emergency generator. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained or if the hours of operation for each emergency generator exceed 500 hours per consecutive 12-month period.
- e. The fuel usage limits for the amount of No. 6 fuel oil and natural gas fired in this source (**ID No. ES-45**) in Section 2.1 I.5.c shall be sufficient to assure compliance with the requirements of Section 2.2 A.1.a above.
- f. The Permittee shall keep monthly records in a logbook (written or electronic format) of the

amount of each fuel fired. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amount of fuel used is not monitored.

- g. The use of fuel shall be limited such that the facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) emissions of both particulate and PM₁₀ shall be less than 250 tons for any consecutive 12-month period each. Calculations shall be made monthly and recorded in a logbook (written or electronic format) according to the following formula:

$$\text{PM/PM}_{10} \text{ tons/month} = [\sum\{3.3 \text{ lbs}/10^3 \text{ gallon} \times \text{A gallon/month}\} + \sum\{11.5 \text{ lbs}/10^3 \text{ gallon} \times \text{B}_1 \text{ gallon/month}\} + \sum\{(9.19\text{S}_6 + 4.72) \text{ lbs}/10^3 \text{ gallon} \times \text{B}_2 \text{ gallon/month}\} + \sum\{7.6 \text{ lbs}/10^6 \text{ scf} \times (\text{C}_1 + \text{C}_2) \text{ scf/month}\} + \sum\{0.0022 \text{ lbs}/\text{hp-hr} \times \text{D}_1 \text{ hp-hr/month}\} + \sum\{0.0007 \text{ lbs}/\text{hp-hr} \times \text{D}_2 \text{ hp-hr/month}\}] / 2000 \text{ lbs/ton}$$

- Where: S₆ = Weight percent of sulfur in No. 6 fuel oil
A = No. 2 fuel oil usage in gallons per month for each No. 2 fuel oil-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
B₁ = No. 6 fuel oil usage in gallons per month for each No. 6 fuel oil-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
B₂ = No. 6 fuel oil usage in gallons per month for each No. 6 fuel oil-fired boiler (>100 million Btu per hour), if it burned this fuel in a given month
C₁ = Natural gas usage in standard cubic feet per month for each natural gas-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
C₂ = Natural gas usage in standard cubic feet per month for each (Pre-NSPS) natural gas-fired boiler (>100 million Btu per hour), if it burned this fuel in a given month
D₁ = Power output in hp-hr per month for each diesel fired emergency generator (<600 hp), if it burned this fuel in a given month
D₂ = Power output in hp-hr per month for each diesel fired emergency generator (>600 hp), if it burned this fuel in a given month

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the above records are not kept or if the facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) emissions of particulate matter or PM₁₀ exceed the limit in Section 2.2 A.1.a above.

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

- h. The Permittee shall submit a 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 six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the monthly particulate matter and PM₁₀ emissions for the previous 17 months on a facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) basis. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

**2. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid the applicability of 15A NCAC 2D .0530(g) for major sources and major modifications, the facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) emissions of sulfur dioxide shall be less than 250 tons per consecutive 12-month period.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.2 A.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- c. Emergency generators shall comply with the monitoring/recordkeeping requirements in Section 2.2 A.1.c and d above to assure compliance with Section 2.2 A.2.a above. If the Permittee does not assure compliance with the requirements of Sections 2.2 A.1.c and d above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.
- d. The fuel usage limits for the amount of No. 6 fuel oil and natural gas fired in this source (**ID No. ES-45**) in Section 2.1 I.5.c above shall be sufficient to assure compliance with the requirements of Section 2.2 A.2.a above.
- e. The sulfur content of No. 6 fuel oil in this source (**ID No. ES-45**) shall not exceed 0.5 weight percent. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the sulfur content of the No. 6 fuel oil fired in this source exceeds 0.5 weight percent.
- f. The Permittee shall keep monthly records of the amount of fuel used and the sulfur content of each fuel, including certification of the fuel, in a logbook (written or in electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the sulfur content of the fuel is not monitored.
- g. The use of fuel shall be limited such that facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) sulfur dioxide emissions shall be less than 250 tons for any consecutive 12-month period. Calculations shall be made monthly and recorded in a logbook (written or in electronic format), according to the following formula:

$$\text{SO}_2 \text{ tons/month} = \left[\sum \{142S_2 \text{ lbs}/10^3 \text{ gallon} \times A \text{ gallon/month}\} + \sum \{157S_6 \text{ lbs}/10^3 \text{ gallon} \times (B_1 + B_2) \text{ gallon/month}\} + \sum \{0.6 \text{ lbs}/10^6 \text{ scf} \times (C_1 + C_2) \text{ scf/month}\} + \sum \{0.00205 \text{ lbs/hp-hr} \times D_1 \text{ hp-hr/month}\} + \sum \{0.00809S_d \text{ lbs/hp-hr} \times D_2 \text{ hp-hr/month}\} + \sum \{0.00957S_n \text{ lbs/hp-hr} \times E \text{ hp-hr/month}\} \right] / 2000 \text{ lbs/ton}$$

- Where: S_2 = Weight percent of sulfur in No. 2 fuel oil
 S_6 = Weight percent of sulfur in No. 6 fuel oil
 S_d = Weight percent of sulfur in diesel fuel
 S_n = Weight percent of sulfur in natural gas
 A = No. 2 fuel oil usage in gallons per month for each No. 2 fuel oil-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
 B_1 = No. 6 fuel oil usage in gallons per month for each No. 6 fuel oil-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
 B_2 = No. 6 fuel oil usage in gallons per month for each No. 6 fuel oil-fired boiler (>100 million Btu per hour), if it burned this fuel in a given month
 C_1 = Natural gas usage in standard cubic feet per month for each natural gas-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
 C_2 = Natural gas usage in standard cubic feet per month for each (Pre-NSPS) natural gas-fired boiler (>100 million Btu per hour), if it burned this fuel in a given month
 D_1 = Power output in hp-hr per month for each diesel fired emergency generator (<600 hp), if it burned this fuel in a given month
 D_2 = Power output in hp-hr per month for each diesel fired emergency generator (>600 hp)

- hp), if it burned this fuel in a given month
- E = Power output in hp-hr per month for any natural gas fired emergency generator or a chiller engine, if it burned this fuel in a given month.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the above records are not kept or if the facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) emissions of sulfur dioxide exceed the limit in Section 2.2 A.2.a above.

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

- h. The Permittee shall submit a 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 six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
- i. the monthly sulfur dioxide emissions for the previous 17 months on a facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) basis. The emissions must be calculated for each of the 12-month periods over the previous 17 months;
 - ii. the monthly quantities of natural gas, diesel fuel, No. 2 fuel oil, and No. 6 fuel oil consumed for the previous 17 months; and
 - iii. the average sulfur content of the natural gas, diesel fuel, No. 2 fuel oil, and No. 6 fuel oil.

3. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS

for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. In order to avoid applicability of 15A NCAC 2D .0530(g) for major sources and major modifications, the facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) emissions of carbon monoxide shall be less than 250 tons per consecutive 12-month period.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.2 A.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- c. Emergency generators shall comply with the monitoring/recordkeeping requirements in Section 2.2 A.1.c and d above to assure compliance with Section 2.2 A.3.a above. If the Permittee does not assure compliance with the requirements of Section 2.2 A.1.c and d above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.
- d. The fuel usage limits for the amount of No. 6 fuel oil and natural gas fired in this source (**ID No. ES-45**) in Section 2.1 I.5.c above shall be sufficient to assure compliance with the requirements of Section 2.2 A.3.a above.
- e. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amount of each fuel fired. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amount of fuel used is not monitored.
- f. The use of fuel shall be limited such that facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) carbon monoxide emissions shall be less than 250 tons for any consecutive 12-month period. Calculations shall be made monthly and recorded in a logbook (written or electronic format), according to the following formula:

$$\text{CO tons/month} = \left[\sum \{5 \text{ lbs}/10^3 \text{ gallon} \times A \text{ gallon/month}\} + \sum \{5 \text{ lbs}/10^3 \text{ gallon} \times (B_1 + B_2) \text{ gallon/month}\} + \sum \{84 \text{ lbs}/10^6 \text{ scf} \times (C_1 + C_2) \text{ scf/month}\} + \sum \{0.00668 \text{ lbs/hp-hr} \times D_1 \text{ hp-hr/month}\} + \sum \{0.0055 \text{ lbs/hp-hr} \times D_2 \text{ hp-hr/month}\} + \sum \{0.0075 \text{ lbs/hp-hr} \times E \text{ hp-hr/month}\} \right] / 2000 \text{ lbs/ton}$$

- Where: A = No. 2 fuel oil usage in gallons per month for each No. 2 fuel oil-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
- B₁ = No. 6 fuel oil usage in gallons per month for each No. 6 fuel oil-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
- B₂ = No. 6 fuel oil usage in gallons per month for each No. 6 fuel oil-fired boiler (>100 million Btu per hour), if it burned this fuel in a given month
- C₁ = Natural gas usage in standard cubic feet per month for each natural gas-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
- C₂ = Natural gas usage in standard cubic feet per month for each (Pre-NSPS) natural gas-fired boiler (>100 million Btu per hour), if it burned this fuel in a given month
- D₁ = Power output in hp-hr per month for each diesel fired emergency generator (<600 hp), if it burned this fuel in a given month
- D₂ = Power output in hp-hr per month for each diesel fired emergency generator (>600 hp), if it burned this fuel in a given month
- E = Power output in hp-hr per month for any natural gas fired emergency generator or a chiller engine, if it burned this fuel in a given month.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the above records are not kept or if the facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) emissions of carbon monoxide exceed the limit in Section 2.2 A.3.a. above.

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

- g. The Permittee shall submit a 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 six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the monthly carbon monoxide emissions for the previous 17 months on a facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) basis. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

**4. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 2D .0530(g) for major sources and major modifications, the facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) emissions of nitrogen oxides (as NO₂) shall be less than 250 tons per consecutive 12-month period.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.2 A.4.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D

.0530.

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

- c. Emergency generators shall comply with the monitoring/recordkeeping requirements in Section 2.2 A.1.c and d above to assure compliance with Section 2.2 A.4.a above. If the Permittee does not assure compliance with the requirements of Section 2.2 A.1.c and d above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.
- d. The fuel usage limits for the amount of No. 6 fuel oil and natural gas fired in this source (**ID No. ES-45**) in Section 2.1 I.5.c above shall be sufficient to assure compliance with the requirements of Section 2.2 A.4.a above.
- e. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amount of each fuel fired. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amount of fuel used is not monitored.
- f. The use of fuel shall be limited such that facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) nitrogen oxides (as NO₂) emissions shall be less than 250 tons for any consecutive 12-month period. Calculations shall be made monthly and recorded in a logbook (written or electronic format), according to the following formula:

$$\text{NO}_x \text{ tons/month} = \left[\sum \{20 \text{ lbs}/10^3 \text{ gallon} \times A \text{ gallon/month}\} + \sum \{55 \text{ lbs}/10^3 \text{ gallon} \times B_1 \text{ gallon/month}\} + \sum \{47 \text{ lbs}/10^3 \text{ gallon} \times B_2 \text{ gallon/month}\} + \sum \{100 \text{ lbs}/10^6 \text{ scf} \times C_1 \text{ scf/month}\} + \sum \{280 \text{ lbs}/10^6 \text{ scf} \times C_2 \text{ scf/month}\} + \sum \{0.031 \text{ lbs}/\text{hp-hr} \times D_1 \text{ hp-hr/month}\} + \sum \{0.024 \text{ lbs}/\text{hp-hr} \times D_2 \text{ hp-hr/month}\} + \sum \{0.018 \text{ lbs}/\text{hp-hr} \times E \text{ hp-hr/month}\} \right] / 2000 \text{ lbs/ton}$$

- Where: A = No. 2 fuel oil usage in gallons per month for each No. 2 fuel oil-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
- B₁ = No. 6 fuel oil usage in gallons per month for each No. 6 fuel oil-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
- B₂ = No. 6 fuel oil usage in gallons per month for each No. 6 fuel oil-fired boiler (>100 million Btu per hour), if it burned this fuel in a given month
- C₁ = Natural gas usage in standard cubic feet per month for each natural gas-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
- C₂ = Natural gas usage in standard cubic feet per month for each (Pre-NSPS) natural gas-fired boiler (>100 million Btu per hour), if it burned this fuel in a given month
- D₁ = Power output in hp-hr per month for each diesel fired emergency generator (<600 hp), if it burned this fuel in a given month
- D₂ = Power output in hp-hr per month for each diesel fired emergency generator (>600 hp), if it burned this fuel in a given month
- E = Power output in hp-hr per month for any natural gas fired emergency generator or a chiller engine, if it burned this fuel in a given month.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the above records are not kept or if the facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) emissions of nitrogen oxides (as NO₂) exceed the limit in Section 2.2 A.4.a above.

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

- g. The Permittee shall submit a 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 six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the monthly nitrogen oxides (as NO₂) emissions for the previous 17 months on a facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) basis. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

**5. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 2D .0531, the facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) emissions of volatile organic compounds (VOCs) shall be less than 100 tons per consecutive 12-month period.

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.2 A.5.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531.

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

- c. Emergency generators shall comply with the monitoring/recordkeeping requirements in Section 2.2 A.1.c and d above to assure compliance with Section 2.2 A.5.a above. If the Permittee does not assure compliance with the requirements of Section 2.2 A.1.c and d above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531.
- d. The fuel usage limits for the amount of No. 6 fuel oil and natural gas fired in this source (**ID No. ES-45**) in Section 2.1 I.5.c above shall be sufficient to assure compliance with the requirements of Section 2.2 A.5.a above.
- e. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amount of each fuel fired. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531 if the amount of fuel used is not monitored.
- f. The use of fuel shall be limited such that facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) VOC emissions shall be less than 100 tons for any consecutive 12-month period. Calculations shall be made monthly and recorded in a logbook (written or electronic format), according to the following formula:

$$\text{VOC tons/month} = [\sum\{0.34 \text{ lbs}/10^3 \text{ gallon} \times A \text{ gallon/month}\} + \sum\{1.13 \text{ lbs}/10^3 \text{ gallon} \times (B_1 + B_2) \text{ gallon/month}\} + \sum\{5.5 \text{ lbs}/10^6 \text{ scf} \times (C_1 + C_2) \text{ scf/month}\} + \sum\{0.00251 \text{ lbs}/\text{hp-hr} \times D_1 \text{ hp-hr/month}\} + \sum\{0.000642 \text{ lbs}/\text{hp-hr} \times D_2 \text{ hp-hr/month}\} + \sum\{0.00132 \text{ lbs}/\text{hp-hr} \times E \text{ hp-hr/month}\}] / 2000 \text{ lbs/ton}$$

- Where: A = No. 2 fuel oil usage in gallons per month for each No. 2 fuel oil-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
- B₁ = No. 6 fuel oil usage in gallons per month for each No. 6 fuel oil-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
- B₂ = No. 6 fuel oil usage in gallons per month for each No. 6 fuel oil-fired boiler (>100 million Btu per hour), if it burned this fuel in a given month
- C₁ = Natural gas usage in standard cubic feet per month for each natural gas-fired boiler (<100 million Btu per hour), if it burned this fuel in a given month
- C₂ = Natural gas usage in standard cubic feet per month for each (Pre-NSPS) natural gas-fired boiler (>100 million Btu per hour), if it burned this fuel in a given

- month
- D₁ = Power output in hp-hr per month for each diesel fired emergency generator (<600 hp), if it burned this fuel in a given month
- D₂ = Power output in hp-hr per month for each diesel fired emergency generator (>600 hp), if it burned this fuel in a given month
- E = Power output in hp-hr per month for any natural gas fired emergency generator or a chiller engine, if it burned this fuel in a given month.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531 if the above records are not kept or if the facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) emissions of VOCs exceed the limit in Section 2.2 A.5.a above.

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

- g. The Permittee shall submit a 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 six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the monthly VOC emissions for the previous 17 months on a facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2A, ES-3A, ES-4A, ES-61, ES-62, and ES-63**) basis. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

2.3- Permit Shield for Non-applicable Requirements

The Permittee can be shielded from the following non-applicable requirements as of the effective date of air permit **02977T20**, based on information furnished with all previous applications. This shield does not apply to future modifications or changes in the method of operation.

- A. The following requirements are not applicable to all boilers included in the air permit 02977T20 with specific conditions and in insignificant activities as an attachment to the cover letter of this air permit:**
1. 15A NCAC 2D .1111 (40 CFR 63, Subpart DDDDD “National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters”) does not apply to these sources, because the facility is not a major source of HAP emissions.

SECTION 3 - GENERAL CONDITIONS (v2.22.1)

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

- A. General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
 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 2Q .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 Environment and Natural Resources upon request.

C. **Severability Clause** [15A NCAC 2Q .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 2Q .0507(e) and 2Q .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 NOx 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

E. **Duty to Comply** [15A NCAC 2Q .0508(i)(2)]

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 2Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 2Q .0524 and 2Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q.0524 and 2Q .0505.
3. Minor Permit Modifications [15A NCAC 2Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.
4. Significant Permit Modifications [15A NCAC 2Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.
5. Reopening for Cause [15A NCAC 2Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .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 2Q .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 2Q .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 2Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 2D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 2Q .0523(c).

I.A. Reporting Requirements for Excess Emissions and Permit Deviations

[15A NCAC 2D .0535(f) and 2Q .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 2D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 2Q .0700.

(Note: Definitions of excess emissions under 2D .1110 and 2D .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 2D .0524), NESHAPS (15A NCAC 2D .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 2D .0524), NESHAPS (15A NCAC 2D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 2D .0535 as follows:
 - a. Pursuant to 15A NCAC 2D .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 2D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 2Q .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 2D .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 2D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 2D .0535, including 15A NCAC 2D .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 2D .0535(c)(1) through (7).
2. 15A NCAC 2D .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 2Q .0508(e) and 2Q .0513(b)]

This permit is issued for a fixed term of five years for facilities subject to Title IV requirements and for a term not to exceed five years in the case of all other facilities. This permit shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 2Q .0512(b)(1), this permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of this permit shall remain in effect until the renewal permit has been issued or denied.

L. Need to Halt or Reduce Activity Not a Defense [15A NCAC 2Q .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 2Q .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 2Q .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 2Q .0508(f) and 2Q .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 2Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street, 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 2Q .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 2Q .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 2Q .0523.
 4. A permit shield does not extend to minor permit modifications made under 15A NCAC 2Q .0515.
- S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 2Q .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 2Q .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 2Q .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 2Q .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 2Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 2Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environment and Natural Resources. 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 2Q .0519.

- X. **Annual Emission Inventory Requirements** [15A NCAC 2Q .0207]
The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 2Q .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 2Q .0107 and 2Q. 0508(i)(9)]
Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 2Q .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 2Q .0107.
- Z. **Construction and Operation Permits** [15A NCAC 2Q .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 2Q .0100 and .0300.
- AA. **Standard Application Form and Required Information** [15A NCAC 2Q .0505 and .0507]
The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 2Q .0505 and .0507.
- BB. **Financial Responsibility and Compliance History** [15A NCAC 2Q .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 2Q .0501(e)]
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 2Q .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 2Q .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 2D .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 2D .0300.

HH. Registration of Air Pollution Sources [15A NCAC 2D .0200]

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 2D .0202(b).

II. Ambient Air Quality Standards [15A NCAC 2D .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 2D .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 2Q .0508(i)(16)]

If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ in support of a permit application or to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2600 and follow the procedures outlined below:

1. The Permittee shall submit a completed Protocol Submittal Form to the DAQ Regional Supervisor at least 45 days prior to the scheduled test date. A copy of the Protocol Submittal Form may be obtained from the Regional Supervisor.
2. The Permittee shall notify the Regional Supervisor of the specific test dates at least 15 days prior to testing in order to afford the DAQ the opportunity to have an observer on-site during the sampling program.
3. During all sampling periods, the Permittee shall operate the emission source(s) under maximum normal operating conditions or alternative operating conditions as deemed appropriate by the Regional Supervisor or his delegate.
4. The Permittee shall submit **two** copies of the test report to the DAQ. The test report shall contain at a minimum the following information:
 - a. a description of the training and air testing experience of the person directing the test;
 - b. a certification of the test results by sampling team leader and facility representative;
 - c. a summary of emissions results and text detailing the objectives of the testing program, the applicable state and federal regulations, and conclusions about the testing and compliance status of the emission source(s);
 - d. a detailed description of the tested emission source(s) and sampling location(s) process flow diagrams, engineering drawings, and sampling location schematics should be included as necessary;
 - e. all field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;

- f. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
 - g. documentation of facility operating conditions during all testing periods and an explanation relating these operating conditions to maximum normal operation. If necessary, provide historical process data to verify maximum normal operation.
5. The testing requirement(s) shall be considered satisfied only upon written approval of the test results by the DAQ.
 6. The DAQ will review emission test results with respect exclusively to the specified testing objectives as proposed by the Permittee and approved by the DAQ.

KK. Reopening for Cause [15A NCAC 2Q .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 2Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 2Q .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 2Q .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 2Q .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. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

MM. Fugitive Dust Control Requirement [15A NCAC 2D .0540] - STATE ENFORCEABLE ONLY

As required by 15A NCAC 2D .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 2D .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. 1. For modifications made pursuant to 15A NCAC 2Q .0501(c)(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 2Q .0501(d)(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 2Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth St., 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.

ATTACHMENT

List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CAA	Clean Air Act
DAQ	Division of Air Quality
DENR	Department of Environment and Natural Resources
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound