JOSH STEIN
Governor
D. REID WILSON
Secretary
MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

Enter Calendar Date

Mr. Charles A. Maimone
Executive Vice Chancellor, Finance and Administration
North Carolina State University
Holladay Hall, 106
Campus Box 7201
Raleigh, NC 27695

SUBJECT: Air Quality Permit No. 02977T26
Facility ID: 9200290
North Carolina State University
Raleigh
Wake County
Fee Class: Title V
PSD Status: Major

Dear Mr. Maimone:

In accordance with your completed Air Quality Permit Application for renewal of your Title V permit, we are forwarding, herewith, Air Quality Permit No. 02977T26 authorizing the construction and operation of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been identified as such in the permit. Please note the requirements for the annual compliance certification are contained in General Condition P in Section 4. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

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

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to file a petition for contested case hearing in the North Carolina Office of Administrative Hearings. Information regarding the right, procedure, and time limit for permittees and other persons aggrieved to file such a petition is contained in the attached "Notice Regarding the Right to Contest a Division of Air Quality Permit Decision."

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

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

Wake County has triggered increment tracking under PSD for sulfur dioxide. However, this permit renewal does not consume or expand increments for any pollutants.

This Air Quality Permit shall be effective from ***(Enter Permit Issuance Date)*** and shall expire on the earlier of ***(Enter date five years from Date of Issuance = last day of previous month at 5 years)*** has been issued or denied. This Air Quality Permit 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 Eric L. Crump, P.E. at (919) 707-8470 or eric.crump@deq.nc.gov.

Sincerely yours,

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

Enclosure

c: Brad Akers, EPA Region 4 (Permit and Review)
Laserfiche (9200290)

NOTICE REGARDING THE RIGHT TO CONTEST A DIVISION OF AIR QUALITY PERMIT DECISION

Right of the Permit Applicant or Permittee to File a Contested Case: Pursuant to NCGS 143-215.108(e), a permit applicant or permittee who is dissatisfied with the Division of Air Quality's decision on a permit application may commence a contested case by filing a petition under NCGS 150B-23 in the Office of Administrative Hearings within 30 days after the Division notifies the applicant or permittee of its decision. If the applicant or permittee does not file a petition within the required time, the Division's decision on the application is final and is not subject to review. The filing of a petition will stay the Division's decision until resolution of the contested case.

Right of Other Persons Aggrieved to File a Contested Case: Pursuant to NCGS 143-215.108(e1), a person other than an applicant or permittee who is a person aggrieved by the Division's decision on a permit application may commence a contested case by filing a petition under NCGS 150B-23 within 30 days after the Division provides notice of its decision on a permit application, as provided in NCGS 150B-23(f), or by posting the decision on a publicly available Web site. The filing of a petition under this subsection does not stay the Division's decision except as ordered by the administrative law judge under NCGS 150B-33(b).

General Filing Instructions: A petition for contested case hearing must be in the form of a written petition, conforming to NCGS 150B-23, and filed with the Office of Administrative Hearings, 1711 New Hope Church Road, Raleigh NC, 27609, along with a fee in an amount provided in NCGS 150B-23.2. A petition for contested case hearing form may be obtained upon request from the Office of Administrative Hearings or on its website at https://www.oah.nc.gov/hearings-division/filing/hearing-forms. Additional specific instructions for filing a petition are set forth at 26 NCAC Chapter 03.

Service Instructions: A party filing a contested case is required to serve a copy of the petition, by any means authorized under 26 NCAC 03 .0102, on the process agent for the Department of Environmental Quality:

Daniel S. Hirschman, General Counsel
North Carolina Department of Environmental Quality
1601 Mail Service Center
Raleigh, North Carolina 27699-1601

If the party filing the petition is a person aggrieved other than the permittee or permit applicant, the party **must also** serve the permittee in accordance with NCGS 150B-23(a).

* * *

Additional information is available at https://www.oah.nc.gov/hearings-division/hearing-process/filing-contested-case. Please contact the OAH at 984-236-1850 or oah.postmaster@oah.nc.gov with all questions regarding the filing fee and/or the details of the filing process.

Summary of Changes to Permit

The following changes were made to Air Permit No. 02977T25:*

Page No.	Section	Description of Changes
Cover and throughout	---	• Updated all dates and permit revision numbers • Updated all limits/standards summary tables to current standard format • Replaced all instances of "§" with "40 CFR" • 11 point font changed to 10 point font throughout
Insignificant Activities List	Attachment	Moved to Section 3 of permit
2	Table of Contents	Changed Section 3 from "General Conditions" to "Insignificant Activities per 15A NCAC 02Q .0503(8)" Added new Section 4, "General Conditions"
3	List of Acronyms	Relocated here (formerly last page of permit)
4-9	1	Table edited accordingly to add new sources, modify existing sources, and delete sources removed from the permit with this renewal
13	2.1 B 3.c 2.1 B.3.e	Revised to include specific requirements for fuel supplier certification Deleted specific requirements for fuel supplier certification, and added requirement to identify all instances of deviation from permit requirements
14-15	2.1 C	Deleted boiler ES-24B from list of sources and limits/standards table Added boiler ES-26B to list of sources and limits/standards table
15	2.1 C.1.g 2.1 C.1.i 2.1 C.2	Deleted boiler ES-24B and emissions limit; re-lettered subsequent paragraphs in section 2.1 C.1 accordingly Deleted boiler ES-24B from monitoring/recordkeeping/reporting requirements Deleted boiler ES-24B
16	2.1 C.3	Deleted boiler ES-24B
20	2.1 E	Deleted generators ES-08E, ES-46E and ES-93E from list of sources
23	2.1 F	Deleted generator ES-140E from list of sources and limits/summary table, and throughout this section
24	2.1 F.3	Updated section to reflect the most current stipulations for 15A NCAC 02 .0524, New Source Performance Standards (Subpart IIII)
26	2.1 F.4	Updated section to reflect the most current stipulations for 15A NCAC 02 .0524, New Source Performance Standards (Subpart JJJJ)
32	2.1 G.3.b	Added "per megawatt-hour" between "NOx" and "(MWh)

Page No.	Section	Description of Changes
33	2.1 G.3.u	Added “in Section 2.1 G.p through t” after “recordkeeping activities”
35	2.2 A	This section edited to remove sources IES-38B, IES-155E, IES-156, IES-162E, IES-36B, ES-163E, ES-93E,
36	2.2 A.1 d, f, g	Deleted source ES-08E
38	2.2 A.3	• Updated section to reflect the most current stipulations for 15A NCAC 02D .1100, Control of Toxic Air Pollutants • Deleted boiler ES-24B and generators ES-08E and ES-93E from toxic emission limits table
46	2.2 A.4	Updated section to reflect the most current stipulations for 15A NCAC 02Q .0711, Emission Rates Requiring a Permit
47	2.2 B.1.d	Deleted paragraph (requirement to monitor and record type of fuel combusted in the affected boilers each month). Subsequent paragraphs in Section 2.2 B.1 are renumbered accordingly.
48	2.2 B.1.g.iii, v	Updated paragraphs to reflect the most current stipulations for 40 CFR Part 63, Subpart JJJJJJ
48	2.2 B.1.i.iv	Inserted “Records of” at beginning of paragraph
50	2.2 B.2.f.iv	Inserted “Records of” at beginning of paragraph
52	3	• Section 3 is now “Insignificant Activities per 15A NCAC 02Q .0503(8)” • Removed footnotes for NSPS, GACT, and PSD; added these descriptors to Emission Source ID column where appropriate • Deleted sources IES-147, IES-155E, IES-31B, IES-36B, IES-38B through IES-42B, IES-58B, and IES-156 • Added sources IES-163E through IES-166E, and IES 168E through IES172E
56-63	4	Updated General Conditions to Version 8.0 dated July 10, 2024

* This list is not intended to be a detailed record of every change made to the permit but a summary of those changes.

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

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
02977T26	02977T25	XXXX	XXXX

NOTE: Per General Condition K, a permit application for the renewal of this Title V permit shall be submitted no later than [enter date six months prior to expiration date].

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

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

Permittee:	**North Carolina State Univesity**
Facility ID:	**9200290**
Primary SIC Code:	**8221**
NAICS Code:	**61131**
Facility Site Location:	**2701 Sullivan Drive**
City, County, State, Zip:	**Raleigh, Wake County, NC 27695**
Mailing Address:	**Holladay Hall, 106**
City, State, Zip:	**Raleigh, NC 27695**
Application Number(s):	**9200290.23A**
Complete Application Date(s):	**January 2, 2024**
Division of Air Quality, Regional Office Address:	**Winston-Salem Regional Office 3800 Barrett Drive, Suite 101 Raleigh, NC 27609**

Permit issued this the XX day of XXXXX, 2025.

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

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

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SECTION 3: INSIGNIFICANT ACTIVITIES PER 15A NCAC 02Q .0503(8)

SECTION 4: GENERAL PERMIT CONDITIONS

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
BAE	Baseline Actual Emissions
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CEDRI	Compliance and Emissions Data Reporting Interface
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
CSAPR	Cross-State Air Pollution Rule
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
GHGs	Greenhouse Gases
HAP	Hazardous Air Pollutant
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_X	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
OAH	Office of Administrative Hearings
PAE	Projected Actual Emissions
PAL	Plantwide Applicability Limitation
PM	Particulate Matter
$PM_{2.5}$	Particulate Matter with Nominal Aerodynamic Diameter of 2.5 Micrometers or Less
PM_{10}	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
tpy	Tons Per Year
VOC	Volatile Organic Compound

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
ES-02 **GACT JJJJJJ, PSD**	One natural gas/No. 2 fuel oil-fired boiler (141 million Btu per hour maximum heat input capacity), located at Building No. 029	NA	NA
ES-3A and ES-4A **NSPS Db, GACT JJJJJJ, PSD**	Two natural gas/No. 2 fuel oil-fired boilers (121.4 million Btu per hour nominal heat input rate each), each equipped with dual-fuel low-NOx burners, located at Building No. 029	NA	NA
ES-27 and ES-28 **NSPS Dc, GACT JJJJJJ, PSD**	Two natural gas/No. 2 fuel oil-fired boilers (25.1 million Btu per hour maximum heat input capacity, each), located at Building No. 705A	NA	NA
ES-31 ES-32 **NSPS Dc, GACT JJJJJJ**	Two natural gas/No. 2 fuel oil-fired boilers (16.33 million Btu per hour maximum heat input capacity, each), located at Building No. 302	NA	NA
ES-39 **NSPS Dc, GACT JJJJJJ**	One natural gas/No. 2 fuel oil-fired boiler (17.5 million Btu per hour maximum heat input capacity), located at Building No. 302	NA	NA
ES-45 **NSPS Dc, GACT JJJJJJ, PSD**	One natural gas/No. 2 fuel oil[1]-fired boiler including low-NOx burner equipment (92.1 million Btu per hour maximum heat input capacity), located at Building No. 705A	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 Building No. 171	NA	NA
ES-48 ES-49	Two natural gas/No. 2 fuel oil-fired boilers (4.15 million Btu per hour maximum heat input capacity, each), located at Building No. 172	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 Building No. 173	NA	NA
ES-53	One natural gas/No. 2 fuel oil-fired boiler (2.94 million Btu per hour maximum heat input capacity), located at Building No. 174	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 Building No. 172F	NA	NA
ES-61 **NSPS Dc, GACT JJJJJJ**	One natural gas/No. 2 fuel oil-fired boiler (16.4 million Btu per hour maximum heat input capacity), located at Building No. 302	NA	NA
ES-01B and ES-02B	Two natural gas-fired boilers (each 3.75 million Btu per hour maximum heat input capacity), located at Building No. 730	NA	NA
ES-04B and ES-05B	Two natural gas-fired boilers (each 2.0 million Btu per hour maximum heat input capacity), located at Building No. 731	NA	NA
ES-06B	One natural gas-fired boiler (0.5 million Btu per hour maximum heat input capacity), located at Building No. 083	NA	NA
ES-07B	One natural gas-fired boiler (2.4 million Btu per hour maximum heat input capacity), located at Building No. 166	NA	NA
ES-08B	One natural gas-fired boiler (3.8 million Btu per hour maximum heat input capacity), located at Building No. 164B	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-09B	One natural gas-fired boiler (1.5 million Btu per hour maximum heat input capacity), located at Building No. 163	NA	NA
ES-11B	One natural gas-fired boiler (4.8 million Btu per hour maximum heat input capacity), located at Building No. 048	NA	NA
ES-12B	One natural gas-fired boiler (1.4 million Btu per hour maximum heat input capacity), located at Building No. 133	NA	NA
ES-13B	One natural gas-fired boiler (3.0 million Btu per hour maximum heat input capacity), located at Building No. 781A	NA	NA
ES-14B	One natural gas-fired boiler (1.53 million Btu per hour maximum heat input capacity), located at Building No. 210	NA	NA
ES-17B and ES-18B	Two natural gas-fired boilers (each 5.4 million Btu per hour maximum heat input capacity), located at Building No. 710	NA	NA
ES-20B and ES-21B	Two natural gas-fired boilers (each 4.8 million Btu per hour maximum heat input capacity), located at Building Nos. 444A and 444B, respectively	NA	NA
ES-22B	One natural gas-fired boiler (3.7 million Btu per hour maximum heat input capacity), located at Building No. 129	NA	NA
ES-23B	One natural gas-fired boiler (0.4 million Btu per hour maximum heat input capacity), located at Building No. 158B	NA	NA
ES-25B	One natural gas/No. 2 fuel oil-fired boiler (1.18 million Btu per hour maximum heat input capacity), located at Building No. 129	NA	NA
ES-26B	One natural gas-fired boiler (0.15 million Btu per hour maximum heat input capacity), located at Building No. 710A	NA	NA
ES-11	One diesel-fired emergency generator (1000 kW), located at Building No. 720A	NA	NA
ES-17	One diesel-fired emergency generator (750 kW), located at Building No. 029	NA	NA
ES-21	One diesel-fired emergency generator (700 kW), located at Building No. 710	NA	NA
ES-25	One natural gas-fired emergency generator (800 kW), located at Building No. 782A	NA	NA
ES-33	One diesel-fired emergency generator (750 kW), located at Building No. 302	NA	NA
ES-36	One diesel-fired emergency generator (1250 kW), located at Building No. 300A	NA	NA
ES-38	One diesel-fired emergency generator (900 kW), located at Building No. 215	NA	NA
ES-56	One diesel-fired emergency generator (600 kW), located at Building No. 075	NA	NA
ES-57 **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (1000 kW), located at Building No. 300C	NA	NA
ES-58	One diesel-fired emergency generator (1100 kW), located at Building No. 301	NA	NA
ES-59	One diesel-fired emergency generator (1100 kW), located at Building No. 301	NA	NA
ES-60 **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (550 kW), located at Building No. 308	NA	NA
ES-62 **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (1000 kW), located at Building No. 782C	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-63 **NSPS IIII, GACT ZZZZ, PSD**	One diesel-fired emergency generator (750 kW), located at Building No. 086	NA	NA
ES-05E	One diesel-fired emergency generator (300 kW), located at Building No. 047	NA	NA
ES-06E	One diesel-fired emergency generator (350 kW), located at Building No. 730	NA	NA
ES-07E	One diesel-fired emergency generator (455 kW), located at Building No. 731	NA	NA
ES-09E	One diesel-fired emergency generator (500 kW), located at Building No. 700	NA	NA
ES-10E	One diesel-fired emergency generator (300 kW), located at Building No. 309	NA	NA
ES-15E	One diesel-fired emergency generator (300 kW), located at Building No. 054	NA	NA
ES-16E	One diesel-fired emergency generator (500 kW), located at Building No. 072	NA	NA
ES-19E	One diesel-fired emergency generator (350 kW), located at Building No. 055	NA	NA
ES-22E	One diesel-fired emergency generator (250 kW), located at Building No. 120	NA	NA
ES-23E	One diesel-fired emergency generator (400 kW), located at Building No. 048	NA	NA
ES-24E	One natural gas-fired emergency generator (450 kW), located at Building No. 076	NA	NA
ES-26E	One diesel-fired emergency generator (500 kW), located at Building No. 782B	NA	NA
ES-30E	One diesel-fired emergency generator (400 kW), located at Building No. 713	NA	NA
ES-36E	One diesel-fired emergency generator (250 kW), located at Building No. 170A	NA	NA
ES-37E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (33 kW), located at Building No. 060	NA	NA
ES-40E	One diesel-fired emergency generator (250 kW), located at Building No. 238	NA	NA
ES-42E	One diesel-fired emergency generator (250 kW), located at Building No. 024	NA	NA
ES-45E	One diesel-fired emergency generator (150 kW), located at Building No. 129	NA	NA
ES-47E	One diesel-fired emergency generator (60 kW), located at Building No. 173	NA	NA
ES-48E	One diesel-fired emergency generator (64 kW), located at Building No. 112A	NA	NA
ES-49E	One diesel-fired emergency generator (80 kW), located at Building No. 025	NA	NA
ES-50E **NSPS III, GACT ZZZZ**	One diesel-fired emergency generator (60 kW), located at Building No. 096	NA	NA
ES-53E	One diesel-fired emergency generator (260 kW), located at Building No. 058A	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-55E	One diesel-fired emergency generator (25 kW), located at Building No. 315	NA	NA
ES-57E	One diesel-fired emergency generator (35 kW), located at Building No. 021	NA	NA
ES-61E	One diesel-fired emergency generator (60 kW), located at Building No. 117	NA	NA
ES-62E	One natural gas-fired emergency generator (20 kW), located at Building No. 081	NA	NA
ES-63E	One diesel-fired emergency generator (33 kW), located at Building No. 733	NA	NA
ES-64E	One diesel-fired emergency generator (200 kW), located at Building No. 078	NA	NA
ES-66E	One diesel-fired emergency generator (25 kW), located at Building No. 040	NA	NA
ES-67E	One diesel-fired emergency generator (20 kW), located at Building No. 118	NA	NA
ES-68E	One diesel-fired emergency generator (30 kW), located at Building No. 271A	NA	NA
ES-69E	One diesel-fired emergency generator (30 kW), located at Building No. 271E	NA	NA
ES-71E	One diesel-fired emergency generator (100 kW), located at Building No. 113B	NA	NA
ES-73E	One diesel-fired emergency generator (30 kW), located at Building No. 128	NA	NA
ES-74E	One diesel-fired emergency generator (250 kW), located at Building No. 063	NA	NA
ES-75E	One diesel-fired emergency generator (200 kW), located at Building No. 087	NA	NA
ES-76E	One diesel-fired emergency generator (200 kW), located at Building No. 095	NA	NA
ES-79E	One natural gas-fired emergency generator (125 kW), located at Building No. 712	NA	NA
ES-80E	One diesel-fired emergency generator (35 kW), located at Building No. 166	NA	NA
ES-82E	One diesel-fired emergency generator (30 kW), located at Building No. 113	NA	NA
ES-83E	One diesel-fired emergency generator (30 kW), located at Building No. 051	NA	NA
ES-84E	One diesel-fired emergency generator (60 kW), located at Building No. 171	NA	NA
ES-85E	One diesel-fired emergency generator (60 kW), located at Building No. 172	NA	NA
ES-86E	One diesel-fired emergency generator (60 kW), located at Building No. 174	NA	NA
ES-87E	One diesel-fired emergency generator (250 kW), located at Building No. 705A	NA	NA
ES-88E	One natural gas-fired emergency generator (15 kW), located at Building No. 034	NA	NA
ES-91E **NSPS IIII, GACT ZZZZ**	One No. 2 fuel oil-fired emergency generator (230 kW), located at Building No. 067	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-94E	One natural gas-fired emergency generator (125 kW), located at Building No. 068	NA	NA
ES-95E	One natural gas-fired emergency generator (100 kW), located at Building No. 210	NA	NA
ES-97E	One diesel-fired emergency generator (75 kW), located at Building No. 051	NA	NA
ES-98E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (150 kW), located at Building No. 762A	NA	NA
ES-99E	One diesel-fired emergency generator (500 kW), located at Building No. 135	NA	NA
ES-102E	One diesel-fired emergency generator (20 kW), located at Building No. 164C	NA	NA
ES-103E	One diesel-fired emergency generator (30 kW), located at Building No. 250A	NA	NA
ES-104E	One natural gas-fired emergency generator (60 kW), located at Building No. 172F	NA	NA
ES-105E	One natural gas-fired emergency generator (95 kW), located at Building No. 444	NA	NA
ES-106E	One diesel-fired emergency generator (30 kW), located at Building No. 018	NA	NA
ES-107E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (230 kW), located at Building No. 032A	NA	NA
ES-108E	One diesel-fired emergency generator (80 kW), located at Building No. 094	NA	NA
ES-109E	One diesel-fired emergency generator (400 kW), located at Building No. 135F	NA	NA
ES-110E	One diesel-fired emergency generator (100 kW), located at Building No. 084	NA	NA
ES-111E	One natural gas-fired emergency generator (150 kW), located at Building No. 712	NA	NA
ES-114E	One diesel-fired emergency generator (50 kW), located at Building No. 038	NA	NA
ES-115E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (500 kW), located at Building No. 050	NA	NA
ES-116E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (400 kW), located at Building No. 039	NA	NA
ES-117E **NSPS IIII**	One diesel-fired emergency generator (400 kW), located at Building No. 067	NA	NA
ES-118E **NSPS JJJJ, GACT ZZZZ**	One natural gas-fired emergency generator (40 kW), located at Building No. 105	NA	NA
ES-120E	One diesel-fired emergency generator (30 kW), located at Building No. 042	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-122E	One natural gas-fired emergency generator (10 kW), located at Building No. 165A	NA	NA
ES-163E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (up to 1250 kW), located at Building No. 763	NA	NA
ES-1A and ES-1B **NSPS KKKK, PSD**	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-NOx duct burners, located at Building No. 086 Simple-cycle mode of operation: 66.3 million Btu per hour nominal heat input rate each when firing natural gas 63.3 million Btu per hour nominal heat input rate each when firing No. 2 fuel oil Combined heat and power mode of operation: 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 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 No. 2 fuel	NA	NA
ES-5A **NSPS KKKK, PSD**	One natural gas/No. 2 fuel oil-fired internal combustion turbine (60 million Btu per hour maximum heat input rate) with natural gas-fired heat recovery steam generator (33 million Btu per hour maximum heat input rate) and combined heat and power mode of operation, located at Building No. 705A	NA	NA
ES-137	Daniels Hall Woodshop, located at Building No. 038	CD-137B	Bagfilter
ES-138	Leazar Hall Woodshop, located at Building No. 018	CD-138B	Bagfilter

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

A. One natural gas/No. 2 fuel oil-fired boiler (ID No. ES-02), located at Building No. 029

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	0.228 pounds per million Btu heat input	15A NCAC 02D .0503
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	40 percent opacity	15A NCAC 02D .0521
PM/PM_{10}, $PM_{2.5}$, SO_2, NO_x (as NO_2), CO, VOC, and GHGs	No specific requirements	15A NCAC 02D .0530
Hazardous Air Pollutants	**See Section 2.2 B.2**	15A NCAC 02D .1111

1. 15A NCAC 02D .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 the source **(ID No. ES-02)** into the atmosphere shall not exceed 0.228 pounds per million Btu heat input.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

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

b. 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-02)**.

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

a. Emissions of sulfur dioxide from this source **(ID No. ES-02)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

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

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas or No. 2 fuel oil in this source **(ID No. ES-02)**.

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

a. Visible emissions from this source **(ID Nos. ES-02)** 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 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .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 this source **(ID No. ES-02)**.

B. Seven natural gas/No. 2 fuel oil-fired boilers including:

- **Boilers (ID Nos. ES-27 and ES-28), located at Building 705A**
- **Boilers (ID Nos. ES-31, ES-32 and ES-39), located at Building No. 302**
- **Boiler (ID No. ES-45) with low-NO_x burner equipment, located at Building 705A and**
- **Boiler (ID No. ES-61), located at Building No. 302**

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	Boilers **(ID Nos. ES-27 and ES-28)** 0.295 pounds per million Btu heat input Boilers **(Nos. ES-31 and ES-32)** 0.395 pounds per million Btu heat input Boiler **(ID No. ES-39)** 0.519 pounds per million Btu heat input Boiler **(ID No. ES-45)** 0.261 pounds per million Btu heat input Boiler **(ID No. ES-61)** 0.367 pounds per million Btu heat input	15A NCAC 02D .0503
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Sulfur Dioxide	0.5 percent sulfur content by weight	15A NCAC 02D .0524 (40 CFR 60, Subpart Dc)
Nitrogen Oxides (as NO_2), Sulfur Dioxide	Boilers **(ID Nos. ES-27, ES-28 and ES-45)** No specific requirements	15A NCAC 02D .0530
Hazardous Air Pollutants	**See Section 2.2 B.2**	15A NCAC 02D .1111
Nitrogen Oxides (as NO_2)	**See Section 2.2 A.1**	15A NCAC 02Q .0317 PSD Avoidance
Sulfur Dioxide	**See Section 2.2 A.2**	15A NCAC 02Q .0317 PSD Avoidance

1. 15A NCAC 02D .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 0.295 pounds per million Btu heat input.
b. 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 0.395 pounds per million Btu heat input.
c. 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 0.519 pounds per million Btu heat input.
d. Emissions of particulate matter from the combustion of natural gas or No. 2 fuel oil that are discharged from this source **(ID No. ES-45)** into the atmosphere shall not exceed 0.261 pounds per million Btu heat input.
e. 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 0.367 pounds per million Btu heat input.

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

f. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the respective limit given in Section 2.1 B.1.a through e, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

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

g. 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-28, ES-31, ES-32, ES-39, ES-45, and ES-61)**.

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

a. Visible emissions from these sources **(ID Nos. ES-28, ES-31, ES-32, ES-39, and ES-45)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

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

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

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas or No. 2 fuel oil in these sources **(ID Nos. ES-28, ES-31, ES-32, ES-39, ES-45, and ES-61)**.

3. 15A NCAC 02D .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 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60, Subpart Dc, including Subpart A "General Provisions."

Emission Limitations [15A NCAC 02D .0524]

b. The maximum sulfur content of any fuel oil received and burned in these sources **(ID Nos. ES-28, ES-31, ES-32, ES-39, ES-45, and ES-61)** shall not exceed 0.5 percent by weight. [40 CFR 60.42c(d)]

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

c. Sulfur dioxide emissions shall be monitored as follows:
   i. Distillate Oil – Records of fuel supplier certification shall be used to demonstrate compliance as described under 40 CFR 60.48c(e)(11).
   ii. Fuel supplier certification shall include the following information:
      (A) the name of the oil supplier;
      (B) a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c; and
      (C) 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.

   [40 CFR 60.48c(f)(1)]

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 02D .0524 if these records are not maintained.

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

e. In addition to any other reporting required by 40 CFR 60.48c or notification requirements to the EPA, the Permittee shall submit a summary report of monitoring and recordkeeping activities in Section 2.1 B.3.c and d above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

C. Ten natural gas/No. 2 fuel oil-fired boilers including:

- **Boilers (ID Nos. ES-46 and ES-47), located at Building No. 171**
- **Boilers (ID Nos. ES-48 and ES-49), located at Building No. 172**
- **Boilers (ID Nos. ES-50 and ES-51), located at Building No. 173**
- **Boilers (ID No. ES-53), located at Building No. 174**
- **Boilers (ID Nos. ES-54 and ES-55), located at Building No. 172F**
- **Boiler (ID No. ES-25B), located at Building No. 129**

and

Nineteen natural gas-fired boilers including:

- **Boilers (ID Nos. ES-01B and ES-02B), located at Building No. 730**
- **Boilers (ID Nos. ES-04B and ES-05B), located at Building No. 731**
- **Boiler (ID No. ES-06B), located at Building No. 083**
- **Boiler (ID No. ES-07B), located at Building No. 166**
- **Boiler (ID No. ES-08B), located at Building No. 164B**
- **Boiler (ID No. ES-09B), located at Building No. 163**
- **Boiler (ID No. ES-11B), located at Building No. 048**
- **Boiler (ID No. ES-12B), located at Building No. 133**
- **Boiler (ID No. ES-13B), located at Building No. 781A**
- **Boiler (ID No. ES-14B), located at Building No. 210**
- **Boilers (ID Nos. ES-17B and ES-18B), located at Building No. 710**
- **Boiler (ID No. ES-20B), located at Building No. 444A**
- **Boiler (ID No. ES-21B), located at Building No. 444B**
- **Boiler (ID No. ES-22B), located at Building No. 129**
- **Boiler (ID No. ES-23B), located at Building No. 158B**
- **Boiler (ID No ES-26B), located at Building No. 710A**

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	Boilers (**ID Nos. ES-46 through ES-55**) 0.221 pounds per million Btu heat input each Boilers **(ID Nos. ES-04B, ES-05B and ES-26B)** 0.260 pounds per million Btu heat input each Boilers **(ID Nos. ES-01B, ES-02B, ES-13B, ES-17B, and ES-18B)** 0.386 pounds per million Btu heat input each Boilers **(ID Nos. ES-06B, ES-07B, ES-08B, ES-09B, ES-11B, ES-12B, and ES-14B)** 0.226 pounds per million Btu heat input each Boilers **(ID Nos. ES-20B, ES-21B, and ES-22B)** 0.194 pounds per million Btu heat input each Boilers **(ID Nos. ES-23B and ES-25B)** 0.188 pounds per million Btu heat input each	15A NCAC 02D .0503
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516

Pollutant	Limits/Standards	Applicable Regulation
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 A.3**	15A NCAC 02D .1100
Nitrogen Oxides (as NO_2)	**See Section 2.2 A.1**	15A NCAC 02Q .0317 PSD Avoidance
Sulfur Dioxide	**See Section 2.2 A.2**	15A NCAC 02Q .0317 PSD Avoidance
Hazardous Air Pollutants	Boilers (**ID Nos. ES-46 through ES-55 and ES-25B**) **See Section 2.2 B.3**	15A NCAC 02Q .0317 MACT Avoidance
Toxic Air Pollutants	**State-enforceable only** See Section 2.2 A.4	15A NCAC 02Q .0711

1. 15A NCAC 02D .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 0.221 pounds per million Btu heat input each.
b. Emissions of particulate matter from the combustion of natural gas that are discharged from these sources **(ID Nos. ES-01B, ES-02B, ES-13B, ES-17B, and ES-18B)** into the atmosphere shall not exceed 0.386 pounds per million Btu heat input each.
c. Emissions of particulate matter from the combustion of natural gas that are discharged from these sources **(ID Nos. ES-04B, ES-05B and ES-26B)** into the atmosphere shall not exceed 0.260 pounds per million Btu heat input each.
d. Emissions of particulate matter from the combustion of natural gas that are discharged from these sources **(ID Nos. ES-06B through ES-09B, ES-11B, ES-12B, and ES-14B)** into the atmosphere shall not exceed 0.226 pounds per million Btu heat input each.
e. Emissions of particulate matter from the combustion of natural gas that are discharged from these sources **(ID Nos. ES-20B through ES-22B)** into the atmosphere shall not exceed 0.194 pounds per million Btu heat input each.
f. Emissions of particulate matter from the combustion of natural gas that are discharged from this source **(ID Nos. ES-23B)** into the atmosphere and emissions of particulate matter from the combustion of natural gas or No. 2 fuel oil that are discharged from this source **(ID Nos. ES-25B)** shall not exceed 0.188 pounds per million Btu heat input.

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

g. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the applicable limit given in Section 2.1 C.1.a through g above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

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

h. 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 and ES-25B)**.
i. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas in these sources **(ID Nos. ES-01B, ES-02B, ES-04B through ES-09B, ES-11B through ES-14B, ES-17B, ES-18B and ES-20B through ES-23B and ES-26B)**.

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

a. Emissions of sulfur dioxide from these sources **(ID Nos. ES-46 through ES-55, ES-01B, ES-02B, and ES-04B through ES-09B, ES-11B through ES-14B, ES-17B, ES-18B, ES-20B through ES-23B, ES-25B, and ES-26B)** 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 02Q .0508(f)]

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

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas or No. 2 fuel oil in these sources **(ID Nos. ES-46 through ES-55 and ES-25B)**.

d. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources **(ID Nos. ES-01B, ES-02B, ES-04B through ES-09B, ES-11B through ES-14B, ES-17B, ES-18B, ES-20B through ES-23B, ES-25B, and ES-26B)**.

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

a Visible emissions from these sources **(ID Nos. ES-46 through ES-55, ID Nos. ES-01B, ES-02B, ES-04B through ES-09B, ES-11B through ES-14B, ES-17B, ES-18B ,ES-20B through ES-23B, ES-25B, and ES-26B)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

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

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

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas or No. 2 fuel oil in these sources **(ID Nos. ES-46 through ES-55 and ES-25B)**.

d. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in these sources **(ID Nos. ES-01B, ES-02B, ES-04B through ES-09B, ES-11B through ES-14B, ES-17B, ES-18B, ES-20B through ES-23B, ES-25B, and ES-26B)**.

D. Two natural gas/No. 2 fuel oil-fired boilers (ID Nos. ES-3A and ES-4A), each boiler equipped with dual-fuel low-NO_X burners, located at Building No. 029

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.194 pounds per million Btu heat input	15A NCAC 02D .0503
Visible emissions	20 percent opacity, when firing natural gas	15A NCAC 02D .0521
Sulfur Dioxide Nitrogen Oxides, and Particulate Matter (as opacity)	0.32 pounds SO_2 per million Btu heat input 0.20 pounds NOx per million Btu heat input 20 percent opacity when firing No. 2 fuel oil	15A NCAC 02D .0524 (NSPS Subpart Db)
PM/PM_{10}, $PM_{2.5}$, SO_2, NO_X (as NO_2), CO, VOC, and GHGs	No specific requirements	15A NCAC 02D .0530
Hazardous Air Pollutants	**See Section 2.2 B.1**	15A NCAC 02D .1111

1. 15A NCAC 02D .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-3A and ES-4A)** into the atmosphere shall not exceed 0.194 pounds per million Btu heat input each.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

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

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

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

a. Visible emissions from these sources **(ID Nos. 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 02Q .0508(f)]

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

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

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

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

a. For boilers (**ID Nos. 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 02D .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 02D .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-3A and ES-4A)** shall not exceed 0.32 pounds per million Btu heat input (lb/million Btu) on a 30-day rolling average basis. The emission limit shall apply at all times, including periods of startup, shutdown, and malfunction. [40 CFR 60.42b(k)(2), 60.42b(e) and 60.46b(g)]

c. Visible emissions when firing No. 2 fuel oil or a mixture of No. 2 fuel oil and natural gas in boilers **(ID Nos. 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. The opacity limit shall apply at all times, excluding periods of startup, shutdown or malfunction. [40 CFR 60.43b(f), 60.43b(g) and 60.46b(a)]

d. Nitrogen oxides (NO_X) emissions when firing natural gas, No. 2 fuel oil, or a mixture of No. 2 fuel oil and natural gas in boilers **(ID Nos. ES-3A and ES-4A)** shall not exceed 0.20 lb/million Btu on a 30-day rolling average basis as determined by a performance test. The emission limit shall apply at all times, including periods of startup, shutdown, and malfunction. [40 CFR 60.44b(a), 60.44b (b), 60.44b(i), 60.44b(h) and 60.46b(a)]

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

e. Upon request the Permittee shall conduct testing to demonstrate compliance with the opacity limit in Section 2.1 D.3.c above. The testing shall be performed in accordance with 40 CFR 60.46b(d) and General Condition JJ. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the test is not performed as required or when requested or if the opacity exceeds the visible emissions limit in Section 2.1 D.3.c. [40 CFR 60.46b(d)]

f. Upon request the Permittee shall conduct a 30-day performance test to determine compliance with the NO_X standards in Section 2.1 D.3.d above. The test shall be performed in accordance with §60.46b(e) and General Condition JJ. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the test is not performed as required or when requested or if the 30-day average of NOx emissions measured during the test exceeds the emission limit for NOx in Section 2.1 D.3.d. [40 CFR 60.46b(e)(4)]

g. The Permittee shall follow the applicable procedures in 40 CFR 60.49b(r) to demonstrate compliance with the exemption from the particulate matter limit included in 40 CFR 60.43b(h)(5). [40 CFR 60.46b(i)]

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

h. The Permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) on boilers (**ID Nos. 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 02D .0524, if it does not comply with the requirements of this Section 2.1 D.3.h. [40 CFR 60.48b(a)]

i. The Permittee of an affected facility (**ID Nos. ES-3A and ES-4A)** subject to a NO_X standard under 40 CFR 60.44b shall:
   i. Install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring NO_X and O_2 (or CO_2) 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 40 CFR Part 75 and is continuing to meet the ongoing requirements of 40 CFR Part 75, that CEMS may be used to meet the requirements of 40 CFR 60.48b, except that the owner or operator shall also meet the requirements of 40 CFR 60.49b. Data reported to meet the requirements of 40 CFR 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 02D .0524, if it does not comply with the requirements of this Section 2.1 D.3.i. [40 CFR 60.48b(b)]

j. The CEMS required under 40 CFR 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 02D .0524 if it does not comply with the requirements of this Section 2.1 D.3.j. [40 CFR 60.48b(c)]

k. The 1-hour average NO_X emission rates measured by the continuous NO_X monitor required by 40 CFR 60.48b(b) and required under 40 CFR 60.13(h) shall be expressed in lb/million Btu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524, if it does not comply with the requirements of this Section 2.1 D.3.k. [40 CFR 60.48b(d)]

l. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems. The Permittee shall determine span value for NOx when combusting natural gas or No. 2 fuel oil in boilers (**ID Nos. ES-3A and ES-4A)** in accordance with 40 CFR 60.48b(e)(2). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524, if it does not comply with the requirements of this Section 2.1 D.3.l. [40 CFR 60.48b(e)]

m. 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 Part 60, Method 7A of Appendix A of Part 60, 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 non-compliance with 15A NCAC 02D .0524, if it does not comply with the requirements of this Section 2.1 D.3.m. [40 CFR 60.48b(f)]
n. The Permittee shall comply with the provisions of paragraphs (b), (c), (d), (e)(2), (e)(3), and (f) of 40 CFR 60.48b, or monitor steam generating unit operating conditions and predict NO_X emission rates as specified in a plan submitted pursuant to 40 CFR 60.49b(c). The Permittee shall be deemed in non-compliance with 15A NCAC 02D .0524 if it does not comply with the requirements of this Section 2.1 D.3.n. [40 CFR 60.48b(g)]
o. If the Permittee meets the conditions in either paragraph (j)(1), (2), (3), (4), (5), (6), or (7) of 40 CFR 60.48b, the Permittee is not required to install or operate a COMS and shall meet all applicable requirements in 40 CFR 60.48b(a). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524, if it does not comply with the requirements of this Section 2.1 D.3.o. [40 CFR 60.48b(j)]

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

p. The Permittee shall record and maintain records of the amounts of each fuel combusted in boilers (**ID Nos. 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. [40 CFR 60.49b(d)(1)]
q. For an affected facility (**ID Nos. ES-3A and ES-4A)** subject to the opacity standard in 40 CFR 60.43b, the Permittee shall maintain records of opacity. In addition, if the Permittee elects to monitor emissions according to the requirements in 40 CFR 60.48b(a), they shall maintain records according to the requirements specified in paragraphs (f)(1) through (3) of 40 CFR 60.49b, as applicable to the visible emissions monitoring method used. [40 CFR 60.49b(f)]
r. For an affected facility (**ID Nos. ES-3A and ES-4A**), the Permittee shall maintain records for each steam generating unit operating day of information as specified in 40 CFR 60.49b(g) for demonstrating compliance with NO_X standards under 40 CFR 60.44b. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained. [40 CFR 60.49b(g)]
s. 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 40 CFR 60.41b and the applicable sulfur limit. For the purposes of this 40 CFR 60.49b(r), the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil. [40 CFR 60.49b(r)]
t. The Permittee shall maintain all records required under 40 CFR 60.49b for a period of 2 years following the date of such record. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the records required in Sections 2.1 D.3.p through s are not maintained for a period of 2 years following the date of such records. [40 CFR 60.49b(o)]

Reporting [15A NCAC 02Q .0508 (f) and 40 CFR 60.49b]

u. The Permittee of each affected facility (**ID Nos. ES-3A and ES-4A**) subject to the NO_X standard of 40 CFR 60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of 40 CFR 60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under 40 CFR 60.48b(g)(2) and the records to be maintained under 40 CFR 60.49b(g). If the plan is approved, the owner or operator shall maintain records of predicted NO_X emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall include all applicable requirements of 40 CFR 60.49b(c).
v. 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 or distillate oil. [40 CFR 60.49b(h)]
w. The Permittee of each affected facility (**ID Nos. ES-3A and ES-4A**) subject to the continuous monitoring requirements for NO_X under 40 CFR 60.48(b) shall submit reports containing the information recorded under paragraph (g) of 40 CFR 60.49b.[40 CFR 60.49b(i)]
x. The Permittee shall submit reports certifying that only very low sulfur oil meeting the definition in 40 CFR 60.41b and natural gas were combusted in the affected facility during the reporting period.
y. 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.

E. Fifty-nine diesel-fired emergency generators including:

- **Generator (ID No. ES-11), located at Building No. 720A**
- **Generator (ID No. ES-17), located at Building No. 029**
- **Generator (ID No. ES-21), located at Building No. 710**
- **Generator (ID No. ES-33), located at Building No. 302**
- **Generator (ID No. ES-36), located at Building No. 300A**
- **Generator (ID No. ES-38), located at Building No. 215**
- **Generator (ID No. ES-56), located at Building No. 075**
- **Generator (ID No. ES-58), located at Building No. 301**
- **Generator (ID No. ES-59), located at Building No. 308**
- **Generator (ID No. ES-05E), located at Building No. 047**
- **Generator (ID No. ES-06E), located at Building No. 730**
- **Generator (ID No. ES-07E), located at Building No. 731**
- **Generator (ID No. ES-09E), located at Building No. 700**
- **Generator (ID No. ES-10E), located at Building No. 309**
- **Generator (ID No. ES-15E), located at Building No. 054**
- **Generator (ID No. ES-16E), located at Building No. 072**
- **Generator (ID No. ES-19E), located at Building No. 055**
- **Generator (ID No. ES-22E), located at Building No. 120**
- **Generator (ID No. ES-23E), located at Building No. 048**
- **Generator (ID No. ES-26E), located at Building No. 782B**
- **Generator (ID No. ES-30E), located at Building No. 713**
- **Generator (ID No. ES-36E), located at Building No. 170A**
- **Generator (ID No. ES-40E), located at Building No. 238**
- **Generator (ID No. ES-42E), located at Building No. 024**
- **Generator (ID No. ES-45E), located at Building No. 129**
- **Generator (ID No. ES-47E), located at Building No. 173**
- **Generator (ID No. ES-48E), located at Building No. 112A**
- **Generator (ID No. ES-49E), located at Building No. 025**
- **Generator (ID No. ES-53E), located at Building No. 058A**
- **Generator (ID No. ES-55E), located at Building No. 315**
- **Generator (ID No. ES-57E), located at Building No. 021**
- **Generator (ID No. ES-61E), located at Building No. 117**
- **Generator (ID No. ES-63E), located at Building No. 733**
- **Generator (ID No. ES-64E), located at Building No. 078**
- **Generator (ID No. ES-66E), located at Building No. 040**
- **Generator (ID No. ES-67E), located at Building No. 118**
- **Generator (ID No. ES-68E), located at Building No. 271A**
- **Generator (ID No. ES-69E), located at Building No. 271E**
- **Generator (ID No. ES-71E), located at Building No. 113B**
- **Generator (ID No. ES-73E), located at Building No. 128**
- **Generator (ID No. ES-74E), located at Building No. 063**
- **Generator (ID No. ES-75E), located at Building No. 087**
- **Generator (ID No. ES-76E), located at Building No. 095**
- **Generator (ID No. ES-80E), located at Building No. 166**

- **Generator (ID No. ES-82E), located at Building No. 113**
- **Generators (ID Nos. ES-83E and ES-97E), located at Building No. 051**
- **Generator (ID No. ES-84E), located at Building No. 171**
- **Generator (ID No. ES-85E), located at Building No. 172**
- **Generator (ID No. ES-86E), located at Building No. 174**
- **Generator (ID No. ES-87E), located at Building No. 705A**
- **Generator (ID No. ES-99E), located at Building No. 135**
- **Generator (ID No. ES-102E), located at Building No. 164C**
- **Generator (ID No. ES-103E), located at Building No. 250A**
- **Generator (ID No. ES-106E), located at Building No. 018**
- **Generator (ID No. ES-108E), located at Building No. 094**
- **Generator (ID No. ES-109E), located at Building No. 135F**
- **Generator (ID No. ES-110E), located at Building No. 084**
- **Generator (ID No. ES-114E), located at Building No. 038**
- **Generator (ID No. ES-120E), located at Building No. 042**

and

Eleven natural gas-fired emergency generators including:

- **Generator (ID No. ES-25), located at Building No. 782A**
- **Generator (ID No. ES-24E), located at Building No. 076**
- **Generator (ID No. ES-62E), located at Building No. 081**
- **Generator (ID No. ES-79E), located at Building No. 712**
- **Generator (ID No. ES-88E), located at Building No. 034**
- **Generator (ID No. ES-94E), located at Building No. 068**
- **Generator (ID No. ES-95E), located at Building No. 210**
- **Generator (ID No. ES-104E, located at Building No. 172F**
- **Generator (ID No. ES-105E), located at Building No. 444**
- **Generator (ID No. ES-111E), located at Building No. 712**
- **Generator (ID No. ES-122E), located at Building No. 165A**

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

Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 A.3**	15A NCAC 02D .1100
Nitrogen Oxides (as NO_2)	**See Section 2.2 A.1**	15A NCAC 02Q .0317 PSD Avoidance
Sulfur Dioxide	**See Section 2.2 A.2**	15A NCAC 02Q .0317 PSD Avoidance
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 A.4**	15A NCAC 02Q .0711

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

a. Emissions of sulfur dioxide from the emission sources listed in 2.1 E shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

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

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions when firing diesel fuel in the thirteen natural gas-fired emergency generators listed in 2.1 E.

d. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions when firing diesel fuel in the sixty one diesel-fired emergency generators listed in 2.1 E.

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

a. Visible emissions from these eighty nine emission sources listed in 2.1 E shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

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

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions when firing diesel fuel in the fourteen natural gas-fired emergency generators listed in 2.1 E.

d. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions when firing diesel fuel in the seventy-five diesel-fired emergency generators listed in 2.1 E.

F. Thirteen diesel-fired emergency generators including:

- **Generator (ID No. ES-57), located at Building No. 300C**
- **Generator (ID No. ES-60), located at Building No. 782C**
- **Generator (ID No. ES-62), located at Building No. 782A**
- **Generator (ID No. ES-63), located at Building No. 086**
- **Generator (ID No. ES-37E), located at Building No. 060**
- **Generator (ID No. ES-50E), located at Building No. 096**
- **Generator (ID No. ES-91E), located at Building No. 067**
- **Generator (ID No. ES-98E), located at Building No. 762A**
- **Generator (ID No. ES-107E), located at Building No. 032A**
- **Generator (ID No. ES-115E), located at Building No. 050**
- **Generator (ID No. ES-116E), located at Building No. 039**
- **Generator (ID No. ES-117E), located at Building No. 067**
- **Generator (ID No. ES-163E), located at Building No. Plant Sciences**

and

Natural gas-fired emergency generator (ID No. ES-118E), located at Building No. 105

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

Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	Generator **(ID Nos. ES-118E)** 2.3 pound per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Hydrocarbons, Nitrogren Oxides, Carbon Monoxide, Particulate Matter, and Sulfur Dioxide	Generators (**ID Nos. ES-57, ES-60, ES-62, ES-63, ES-37E, ES-50E, ES-91E, ES-98E, ES-107E, ES-115E through ES-117E, and ES-163E)** **See Section 2.1 F.3**	15A NCAC 02D .0524 40 CFR Part 60, Subpart IIII
Volatile Organic Compounds, Nitrogen Oxides, and Carbon Monoxide	Generator (**ID Nos. ES-118E)**	15A NCAC 02D .0524 40 CFR Part 60, Subpart JJJJ
Hazardous Air Pollutants	Generators (**ID Nos. ES-62, ES-63, ES-37E, ES-50E, ES-91E, ES-98E, ES-107E, ES-115E through ES-118E, and ES-163E)** **See Section 2.1 F.4**	15A NCAC 02D .1111
Nitrogen Oxides (as NO_2)	Generators (**ID Nos. ES-37E, ES-50E, ES-91E, ES-98E, ES-107E, and ES-115E through ES-118E)** **See Section 2.2 A.1**	15A NCAC 02Q .0317 PSD Avoidance
Sulfur Dioxide	Generators (**ID Nos. ES-37E, ES-50E, ES-91E, ES-98E, ES-107E, and ES-115E through ES-118E)** **See Section 2.2 A.2**	15A NCAC 02Q .0317 PSD Avoidance

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

a. Emissions of sulfur dioxide, when burning natural gas in this source **(ID No. ES-118E)**, shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

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

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from burning of natural gas in this source **(ID No. ES-118E).**

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

a. Visible emissions from emission sources (**ID Nos. ES-57, ES-60, ES-62, ES-63, ES-37E, ES-50E, ES-91E, ES-98E, ES-107E, ES-115E through ES-118E, and ES-163E)** 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 02Q .0508(f)]

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

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

c. No monitoring/recordkeeping/reporting is required for visible emissions from firing of diesel fuel or natural gas, as applicable, in the emission sources (**ID Nos. ES-57, ES-60, ES-62, ES-63, ES-37E, ES-50E, ES-91E, ES-98E, ES-107E, ES-115E through ES-118E, and ES-163E)**.

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

Applicability [40 CFR 60.4200(a)(2)(i)]

a. For emergency generators (**ID Nos. ES-57, ES-60, ES-62, ES-63, ES-37E, ES-50E, ES-91E, ES-98E, ES-107E, ES-115E through ES-117E, and ES-163E)**, 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 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart IIII, “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines”, including Subpart A "General Provisions." [15A NCAC 02D .0524]

Definitions and Nomenclature

b. For the purposes of this permit condition, the definitions and nomenclature contained in 40 CFR 60.4219 shall apply.

General Provisions

c. The Permittee shall comply with the General Provisions of 40 CFR 60 Subpart A as presented in Table 8 of 40 CFR 60 Subpart IIII. [40 CFR 60.4218]

Emission Standards [15A NCAC 02Q .0508(b)]

d. The Permittee shall comply with the emission standards in 40 CFR 60.4205 for all pollutants, for the same model year and maximum engine power for each engine listed in Section 2.1 F.3.a. [40 CFR 60.4205]

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

e. The Permittee shall use diesel fuel in the engine that meets the requirements of 40 CFR 1090.305 including:
   i. a maximum sulfur content of 15 ppm; and
   ii. either a minimum cetane index of 40, or a maximum aromatic content of 35 volume percent.
   [40 CFR 60.4207(b)]

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

f. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the

results of this test are above the limits given in Section 2.1 F.3.d and e above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

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

g. The engines have the following monitoring requirements:
   i. Each engine shall be equipped with a non-resettable hour meter prior to startup. [40 CFR 60.4209(a)]
   ii. Each engine, if equipped with a diesel particulate filter, must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [40 CFR 60.4209(b)]

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these monitoring requirements are not met.

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

h. The Permittee shall:
   i. operate and maintain the engines and control devices according to the manufacturer's emission related-written instructions over the entire life of the engine;
   ii. change only those emission-related settings that are permitted by the manufacturer; and
   iii. meet the requirements of 40 CFR part 1068, as applicable to the Permittee.

   [40 CFR 60.4206 and 60.4211(a)]

i. The Permittee shall comply with the emission standards in Section 2.1 F.3.d by purchasing engines certified to the emission standards in Section 2.1 F.3.d for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications. [40 CFR 60.4211(c)]

j. In order for each engine to be considered an emergency stationary internal combustion engine (ICE) as defined in Section 2.1 F.3.b, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described below, is prohibited.
   i. There is no time limit on the use of emergency stationary ICE in emergency situations.
   ii. The Permittee may operate the emergency stationary ICE for the purpose specified in paragraph j.ii.(A) below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph j.(iii) below counts as part of the 100 hours per calendar year allowed by this paragraph j.(ii).
      (A) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
   iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph j.(ii) above. Except as provided in paragraph j.iii.(A) below, the 50 hours per calendar year for non- emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
      (A) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
         (1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
         (2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
         (3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
         (4) The power is provided only to the facility itself or to support the local transmission and distribution system.
         (5) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator. [40 CFR 60.4211(f)]

k. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the compliance requirements in Section 2.1 F.3.h through j are not met.

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

l. The following records shall be maintained:
   i. The results of inspection and maintenance made pursuant to Section 2.1 F.3.h 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:
      (A) the date and time of each recorded action;
      (B) the results of each inspection;
      (C) the results of any maintenance performed on the engines;
      (D) any variance from manufacturer's recommendations, if any, and corrections made;
      (E) the hours of operation of each engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time [40 CFR 60.4214(b)]; and
      (F) if a PM filter is used, records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached [40 CFR 60.4214(c)];
   ii. documentation from the manufacturer that each engine is certified to meet the emission standards in Section 2.1 F.3.d; [40 CFR 60.4214(a)(2)] and
   iii. records showing the fuel combusted meets the requirements in Section 2.1 F.3.e.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these recordkeeping requirements are not met.

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

m. The Permittee shall meet the following reporting requirements:
   i. 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 noncompliance with the requirements of this permit shall be clearly identified.
   ii. If the Permittee owns or operates an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purposes specified in Section 2.1 F.3.j.iii(A), the Permittee shall submit an annual report according to the requirements at 40 CFR 60.4214(d). The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4. Beginning on February 26, 2025, submit annual report electronically according to 40 CFR 60.4214(g). [40 CFR 60.4214(d)] The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if this reporting requirement is not met.

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

Applicability

a. For emergency generator **(ID Nos. ES-118E),** the Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, recordkeeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines, including Subpart A "General Provisions." [15A NCAC 02D .0524]

General Provisions

b. The Permittee shall comply with the General Provisions of 40 CFR 60 Subpart A as presented in Table 3 of 40 CFR 60 Subpart JJJJ. [40 CFR 60.4246]

Emission Standards

c. The Permittee shall comply with the following emission standards for the generator **(ID No. ES-118E).**

Excerpt from Table 1 to 40 CFR Part 60 Subpart JJJJ

Engine type	Maximum engine power	Manufacture date (after)	Emission standards*					
			g/hp-hr			ppmvd @ 15% O2		
			NO_X	CO	VOC‡	NO_X	CO	VOC‡
Emergency	25< HP<130	1/01/2009	10†	387	N/A	N/A	N/A	N/A

*Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O_2.

†The emission standards applicable to emergency engines between 25 HP and 130 HP are in terms of NO_X + HC.

‡For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

[40 CFR 60.4233(d), 40 CFR 60 Table 1 to Subpart JJJJ]

d. The Permittee shall operate and maintain stationary spark ignition (SI) internal combustion engine (ICE) (**ID No. ES-118E)** such that it achieves the emission standards in 40 CFR 60.4233 over the entire life of the engine. [40 CFR 60.4234]

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

e. The engine (**ID No. ES-118E**) shall be equipped with a non-resettable hour meter prior to startup, if the SI ICE does not meet the standards applicable to non-emergency engines. [40 CFR 60.4237(c)]

f. The Permittee must comply with the emission standards in 2.1 F.4.c above by:
   i. purchasing an engine certified to the emission standards in 40 CFR 60.4231(a) through (c), as applicable, for the same engine class and maximum engine power.
   ii. operating and maintaining the engine according to the manufacturer's emission-related written instructions.
   iii. meeting the requirements as specified in 40 CFR Part 1068, Subparts A through D, as they apply to the engine. If engine settings are adjusted according to and consistent with the manufacturer's instructions, the engine will not be considered out of compliance.
   iv. If the Permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine, and the Permittee must demonstrate compliance according to 40 CFR 60.4243(a)(2)(i) through (iii), as appropriate.

   The Permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required for the owner/operator. [40 CFR 60.4243(a)]

g. The Permittee shall operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of 40 CFR 60.4243. In order for the engine to be considered an emergency stationary ICE under this Subpart, any operation other than emergency operation, maintenance and testing, and operation in nonemergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of 40 CFR 60.4243, is prohibited. If the Permittee does not operate the engine according to the requirements in paragraphs (d)(1) through (3) of 40 CFR 60.4243, the engine will not be considered an emergency engine under this Subpart and shall meet all requirements for non-emergency engines.
   i. There is no time limit on the use of emergency stationary ICE in emergency situations.
   ii. Emergency stationary ICE may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
   iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (g)(ii) of this section. Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific North American Electric Reliability Corporation (NERC), regional, state, public utility commission or local standards or guidelines.
(D) The power is provided only to the facility itself or to support the local transmission and distribution system.
(E) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the Permittee.

[40 CFR 60.4243(d)]

h. The Permittee may operate the stationary SI natural gas fired engine using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but shall keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the Permittee is required to conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233.
[40 CFR 60.4243(e)]
i. If the Permittee purchases a non-certified engine for emergency generator (**ID No. ES-118E**) or if the Permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, the Permittee is required to perform initial performance testing as indicated in 40 CFR 60.4243, but the Permittee is not required to conduct subsequent performance testing unless the stationary engine undergoes rebuild, major repair or maintenance. Engine rebuilding means to overhaul an engine or to otherwise perform extensive service on the engine (or on a portion of the engine or engine system). Perform extensive service means to disassemble the engine (or portion of the engine or engine system), inspect and/or replace many of the parts, and reassemble the engine (or portion of the engine or engine system) in such a manner that significantly increases the service life of the resultant engine.[40 CFR 60.4243(f)]
j. The Permittee is expected to use air-to-fuel ratio (AFR) controllers with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40 CFR 60.4243(g)]
k. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the applicable requirements in Section 2.1 F.4.e through j are not met.

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

l. The Permittee shall keep records of the following information:
i. All notifications submitted to comply with 40 CFR Part 60, Subpart JJJJ and all documentation supporting any notification.
ii. Maintenance conducted on the engine.
iii. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR Parts 1048, 1054, and 1060, as applicable.
iv. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524, if the records included in this Section 2.1 G.4.l are not kept. [40 CFR 60.4245(a)]

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

m. No initial notification under 40 CFR 60.7 is required for SI internal combustion engine of the emergency generator (**ID No. ES-118E**). [40 CFR 60.4246 and Table 3 to 40 CFR 60, Subpart JJJJ]
n. If the Permittee operates the emergency stationary CI ICE with a maximum engine power of 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 60.4243(d)(2)(ii) and (iii), or that operates for the purposes specified in §60.4243(d)(3)(i), the Permittee shall submit an annual report according to the requirements in paragraphs (e)(1) through (3) of 40 CFR 60.4245.
o. The Permittee shall submit a summary report of monitoring and recordkeeping activities in Sections 2.1 G.4.e through n above postmarked on or before January 30 of each calendar year for the preceding six-month period

between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

5. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

a. For emergency generators (**ID Nos. ES-57, ES-60, ES-62, ES-63, ES-37E, ES-50E, ES-91E, ES-98E, ES-107E, ES-115E through ES-118E, and ES-163E**), the Permittee shall comply with all applicable provisions, including the requirements for emission limitations, testing, monitoring, recordkeeping, notification, and reporting, contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology (MACT)" as promulgated in 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, including Subpart A "General Provisions."

b. The Permittee shall meet the requirements of 40 CFR Part 63, Subpart ZZZZ by meeting all applicable requirements in 40 CFR Part 60, Subpart IIII for compression ignition engines of emergency generators (**ID Nos. ES-57, ES-60, ES-62, ES-63, ES-37E, ES-50E, ES-91E, ES-98E, ES-107E, ES-115E through ES-117E, ES-140E, and ES-163E**), and no further requirements shall apply to these engines under this Part in accordance with 40 CFR 63.6590(c).

c. The Permittee shall meet the requirements of 40 CFR Part 63, Subpart ZZZZ by meeting all applicable requirements in 40 CFR Part 60, Subpart JJJJ for spark ignition engines of emergency generators (**ID Nos. ES-118E**) and no further requirements shall apply to this engine under this Part in accordance with 40 CFR 63.6590(c).

d. 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 reciprocating internal combustion engine (RICE) for which construction or reconstruction is commenced after the date when an area source becomes a major source of HAP must be in compliance with 40 CFR Part 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 Part 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 Part 63, Subpart A are met.

G. 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 (HRSGs) equipped with dual-fuel low-NOx duct burners (ID Nos. ES-1A and ES-1B), located at Building No. 086; and

One natural gas/No. 2 fuel oil-fired internal combustion turbine with heat recovery steam generator (HRSG), equipped with natural gas-fired low-NOx duct burners (ID No. ES-5A), located at Building No. 705A

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	Combustion turbines (**ID Nos. ES-1A and ES-1B**) When duct burners are operating in the associated HRSGs 0.194 lb/million Btu Combustion turbine (**ID Nos. ES-5A)** When duct burners are operating in the associated HRSG 0.254 lb/million Btu	15A NCAC 02D .0503
Visible Emissions	20 percent opacity each	15A NCAC 02D .0521
Nitrogen Oxides (NOx)	When operating at 75 percent or more of peak load and firing natural gas in the combustion turbine or when operating at 75 percent or more of peak load and firing natural gas in both the combustion turbine and the associated HRSG duct burners 25 ppm at 15 percent O_2 or 1.2 lb/MWh	15A NCAC 02D .0524 (40 CFR Part 60, Subpart KKKK)
	When operating at 75 percent or more of peak load and firing No. 2 fuel oil in the combustion turbine 74 ppm at 15 percent O_2 each or 3.6 lb/MWh each	
	Combustion turbines (**ID Nos. ES-1A and ES-1B)** When operating at 75 percent or more of peak load and firing No. 2 fuel oil in the combustion turbine and the associated HRSG duct burners 74 ppm at 15 percent O_2 each or 3.6 lb/MWh each	
	When firing either natural gas or No. 2 fuel oil while operating at less than 75 percent peak load or less than 0ºF 150 ppm at 15 percent O_2 each or 8.7lb/MWh each	
	Combustion turbines (**ID Nos. ES-1A and ES-1B)** When the HRSG duct burners are operating independent of the combustion turbine 54 ppm at 15 percent O_2 each or 0.86 lb/MWh each	

Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	0.9 lb/MWh or 0.06 lb/million Btu heat input	15A NCAC 2D .0524 40 CFR Part 60, Subpart KKKK
PM/PM_{10}, $PM_{2.5}$, SO_2, NO_x (as NO_2), CO, VOC, and GHGs	No specific requirements **(ID Nos. ES-1A and ES-1B)**	15A NCAC 02D .0530
NO_x (as NO_2), SO_2	No specific requirements **(ID Nos. ES-5A)**	15A NCAC 02D .0530
Toxic Air Pollutants	Combustion turbines (**ID Nos. ES-1A and ES-1B**) **State-enforceable only** **See Section 2.2 A.3**	15A NCAC 02D .1100
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 A.4**	15A NCAC 02Q .0711

1. 15A NCAC 02D .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 theduct burners of the associated HRSG of each combustion turbine (**ID Nos. ES-1A and ES-1B**) into the atmosphere shall not exceed 0.194 pound per million Btu heat input. [15A NCAC 02D .0503(a)]
b. Emissions of particulate matter from the combustion of natural gas or No. 2 fuel oil that are discharged from the duct burners of the associated HRSG of combustion turbine (**ID No. ES-5A**) into the atmosphere shall not exceed 0.254 pound per million Btu heat input. [15A NCAC 02D .0503(a)]

Testing [15A NCAC 02Q .0508(f)]
c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.1.a or b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]
d. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas or No. 2 fuel oil in the duct burners of the associated HRSG of each combustion turbine **(ID Nos. ES-1A, ES-1B and ES-5A**).

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

a. Visible emissions from these sources (**ID Nos. ES-1A, ES-1B, and ES-5A**) 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 02Q .0508(f)]
b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 G.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, ES-1B, and ES-5A**).

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

a. For combustion turbines **(ID Nos. ES-1A, ES-1B, and ES-5A),** 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 02D .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 02D .0524]

Emission Limitations [15A NCAC 02D .0524]

b. When operating at 75 percent or more of peak load and at a temperature of at least 0°F and firing natural gas in the combustion turbine alone or in both the combustion turbine and the associated HRSG duct burners, each combustion turbine (**ID Nos. ES-1A, ES-1B, and ES-5A**) shall emit no more than 25 ppm of NO_X at 15 percent O_2 or no more than 1.2 lb NOx per megawatt-hour (MWh).[2] [40 CFR 60.4320 and Table 1 to Subpart KKKK of Part 60]

c. When operating at 75 percent or more of peak load and at a temperature of at least 0°F and firing No. 2 fuel oil in the combustion turbine, each combustion turbine (**ID Nos. ES-1A, ES-1B and ES-5A**) shall emit no more than 74 ppm of NO_X at 15 percent O_2 emissions or 3.6 lb NOx/MWh.
[40 CFR 60.4320 and Table 1 to Subpart KKKK of Part 60]

d. When operating at 75 percent or more of peak load and at a temperature of at least 0°F and firing No. 2 fuel oil in the both the combustion turbine and the associated heat recovery duct burners, each combustion turbine (**ID Nos. ES-1A and ES-1B**) shall emit no more than 74 ppm of NO_X at 15 percent O_2 emissions or 3.6 lb NOx/MWh. [40 CFR 60.4320 and Table 1 to Subpart KKKK of Part 60]

e. When operating at less than 75 percent of peak load or less than 0°F and firing natural gas or No. 2 fuel oil, each combustion turbine (**ID Nos. 1**) shall emit no more than 150 ppm of NO_X at 15 percent O_2 or 8.7 lb NO_X/MWh.[5] [40 CFR 60.4320]

f. When the HRSG is operating independent of its respective combustion turbine (**ID No ES-1A or ES-1B),** NO_X emissions (except during startup, shutdowns, and malfunction) shall not exceed 54 ppm at 15 percent O_2 or 0.86 lb/MWh. [40 CFR 60.4320 and Table 1 to Subpart KKKK of Part 60]

g. When operating at 75 percent or more of peak load and at a temperature of at least 0°F while co-firing natural gas and No. 2 fuel oil, combustion turbines (**ID Nos. ES-1A, ES-1B, and ES-5A**) shall be subject to the emissions limit in Section 2.1 G.3.b if natural gas provides at least 50 percent of the total heat input. [40 CFR 60.4325]

h. When operating at 75 percent or more of peak load and at a temperature of at least 0°F while co-firing natural gas and No. 2 fuel oil, combustion turbines (**ID Nos. ES-1A, ES-1B, and ES-5A**) shall be subject to the emissions limit in Section 2.1 G.3.c if No. 2 fuel oil provides more than 50 percent of the total heat input. [40 CFR 60.4325]

i. SO_2 emissions (except during startup, shutdowns, and malfunction) from the combustion turbines (**ID Nos. ES-1A, ES-1B, and ES-5A**) shall not exceed 0.90 lb/MWh gross output each, or alternatively, the Permittee shall not burn any fuel in the combustion turbines and associated HRSG duct burners (**ID Nos. ES-1A, ES-1B, and ES-5A**), 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 the fuel sulfur content limit. [40 CFR 60.4330(a)]

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

j. The Permittee shall perform testing to determine NO_X emissions from combustion turbines **(ID Nos. ES-1A or ES-1B, and ES-5A)** in the combined cycle mode on an annual basis (no more than 14 calendar months following the previous performance test), except testing can be reduced to once every two years (no more than 26 calendar months following the previous performance test) when allowed by Section 2.1 G.3.l below. NO_X emissions shall be measured after the duct burners for each fuel (natural gas and No. 2 fuel oil). When testing combustion turbine **(ID No. ES-5A)** for No. 2 fuel oil, the operation of the duct burners is not required. [40 CFR 60.4340]

k. The Permittee shall perform testing to determine NO_X emissions from combustion turbine **(ID Nos. ES-1A or ES-1B)** in the simple cycle mode on an annual basis (no more than 14 calendar months following the previous performance test), except testing can be reduced to once every two years (no more than 26 calendar months following the previous performance test) when allowed by Section 2.1 G.3.l below. NO_X emissions shall be measured for each fuel (natural gas and No. 2 fuel oil). [40 CFR 60.4340]

l. If NO_X emissions from an approved performance test are less than or equal to 75 percent of the applicable NOx emission limit in Section 2.1 G.3.b, c, or d above, the testing frequency~~,~~ can be reduced to once every two years. If the results of any subsequent performance test exceed 75 percent of the NO_X emission limit, the Permittee shall resume the annual performance testing until NOx emissions return to less than or equal to 75 percent of the applicable NO_X emission limit in Section 2.1 G.3.b, c, or d above. [40 CFR 60.4340]

m. Each performance test shall be conducted in accordance with General Condition JJ at ± 25 percent of 100 percent peak load and include three separate test runs, each lasting at least 20 minutes.

n. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the three-run arithmetic average of NO_X emissions from any performance test is more than the applicable emissions limit in Section 2.1 G.3.b, c, d, or e above or if any required stack test is not performed.

[2] The Permittee has chosen to comply with the NO_X emission concentration limits.

Sulfur Dioxide (SO_2) Emissions Testing

o. The Permittee has chosen to demonstrate compliance with the SO_2 emissions limit in Section 2.1 G.3.i above using fuel sulfur content determinations, in place of initial and annual performance testing. When a fuel sulfur content determination indicates the sulfur content of a fuel fired in the combustion turbine is more than allowed in Section 2.1 G.3.s below, the Permittee shall conduct a performance test to determine compliance. If the results of any performance test exceed the SO_2 emissions limit in Section 2.1 G.3.i above or if any required stack test is not performed, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524. [40 CFR 60.8, 60.4360, and 60.4415]

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

p. The Permittee shall operate and maintain the combustion turbines (**ID Nos. ES-1A, ES-1B, and ES-5A**), including dry low NOx 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. [40 CFR 60.4333]

q. As an alternative to the annual performance testing specified in Section 2.1 G.3.j and k above, the Permittee may demonstrate compliance with the NOx emissions limits by conducting continuous emissions monitoring as described in 40 CFR 60.4335(b) and 60.4345. If the Permittee opts to perform continuous emissions monitoring and does not comply with the requirements of 40 CFR 60.4335(b) and 60.4345 or if the NOx emissions (except during startup, shutdowns, and malfunction) from the combustion turbines (**ID Nos. ES-1A, ES-1B, and ES-5A**) exceed the respective emissions limit in Section 2.1 G.3.b, c, d or e above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

r. As an alternative to the annual performance testing specified in Section 2.1 G.3.k above, the Permittee may demonstrate compliance with the NOx emissions limits by conducting continuous parameter monitoring as described in 40 CFR 60.4340(b)(2). When opting to demonstrate compliance with the NOx emission limits using continuous parameter monitoring, the appropriate parameters must be continuously monitored and recorded during each run of an initial performance test to establish acceptable operating ranges for purposes developing the parameter monitoring plan for the affected unit, as specified in 40 CFR 60.4355. 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 NOx emission controls. The parameter monitoring plan shall contain all elements of 40 CFR 60.4355(a)(1) through (a)(6). When following this alternative compliance monitoring option, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the parameter monitoring plan is not developed, followed and kept on-site or if the parameter monitoring system indicates that the combustion turbine is emitting NOx in excess of the applicable emissions limit in Section 2.1 G.3.b, c, d or e above. [40 CFR 60.8, 60.4335, and 60.4340]

s. The Permittee shall maintain records of the quality characteristics of each fuel fired in the combustion turbines and associated HRSG duct burners. At a minimum, these records must include a current valid purchase contract(s), tariff sheet(s), or transportation contract(s) specifying that the sulfur content of the No. 2 fuel oil is 0.05 weight percent (500 ppmw) or less and the sulfur content of the natural gas used is 20 grains of sulfur per 100 standard cubic feet or less. If these fuel records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.[40 CFR 60.4365]

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

t. If a continuous monitoring system is used for establishing ongoing compliance, the Permittee shall submit a notification of the date upon which demonstration of its performance commences in accordance with 40 CFR 60.13(c). Notification shall be postmarked not less than 30 days prior to such date. [40 CFR 60.7(a)(5)]

u. The Permittee shall submit a summary report of monitoring and recordkeeping activities in Section 2.1 G.p through t 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.

H. Daniels Hall Wood Shop (ID No. ES-137) and Associated Bagfilter (ID No. CD-137), Located at Building No. 038
Leazar Hall Wood Shop (ID No. ES-138) and Associated Bagfilter (ID No. CD-138), Located at Building No. 018

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	See Section 2.1 H.1.a.	15A NCAC 02D .0512
Visible Emissions	20 percent opacity	15A NCAC 02D .0521

1. **15A NCAC 02D .0512: PARTICULATES FROM MISCELLANEOUS WOOD PRODUCTS FINISHING PLANTS**

   a. The Permittee shall not cause, allow, or permit particulate matter caused by the working, sanding, or finishing of wood to be discharged from any stack, vent, or building into the atmosphere without providing, as a minimum for its collection, adequate duct work and properly designed collectors. In no case shall the ambient air quality standards be exceeded beyond the property line.

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

   b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 H.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

   c. No monitoring/recordkeeping/reporting is required for particulate matter emissions from these sources (**ID Nos. ES-137 and ES-138).**

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

   a. Visible emissions from these sources (**ID Nos. ES-137 and ES-138**) shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

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

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

   c. No monitoring/recordkeeping/reporting is required for visible emissions from these sources (**ID Nos. ES-137 and ES-138).**

2.2 Multiple Emission Source(s) Specific Limitations and Conditions

A. Facility-wide affected sources

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

Pollutant	Limits/Standards	Applicable Regulation
Nitrogen Oxides (as NO_2)	Facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2, ES-3A, ES-4A, ES-5A, ES-27, ES-28, ES-45, ES-48, ES-49, ES-57, ES-61 through ES-63, IES-64, ES-137, ES-138, ES-23B, ES-25B, ES-26B, IES-27B through IES-36B, IES-43 through IES-57B, IES-59B through IES-62B, IES-161, IES-08E-R, IES-52E-R, IES-65E-R, IES-123E through IES-125E, IES-128E through IES-132E, IES-135E, IES-136E, IES-139E, ES-140E, IES-141E through IES-154E, IES-157, IES-158E through IES-160E, and IES-162E through ES-172E)** less than 242 tons per consecutive 12-month period.	15A NCAC 02Q .0317 PSD Avoidance
Sulfur Dioxide	Facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2, ES-3A, ES-4A, ES-5A, ES-27, ES-28, ES-45, ES-48, ES-49, ES-57, ES-61 through ES-63, IES-64, ES-137, ES-138, ES-23B through ES-26B, IES-27B through IES-36B, IES-38B through IES-62B, IES-161, IES-08E-R, IES-52E-R, IES-65E-R, IES-123E through IES-125E, IES-128E through IES-132E, IES-135E, IES-136E, IES-139E, ES-140E, IES-141E through IES-154E, IES-157, IES-158E through IES-160E, and ES-162E through ES-172E)** less than 247 tons per consecutive 12-month period.	15A NCAC 02Q .0317 PSD Avoidance
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 A.3**	15A NCAC 02D .1100
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 A.4**	15A NCAC 02Q .0711

1. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, the facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2, ES-3A, ES-4A, ES-5A, ES-27, ES-28, ES-45, ES-48, ES-49, ES-57, ES-61 through ES-63, IES-64, ES-137, ES-138, ES-23B, ES-25B, ES-26B, IES-27B through IES-36B, IES-43 through IES-57B, IES-59B through IES-62B, IES-161, IES-08E-R, IES-52E-R, IES-65E-R, IES-123E through IES-125E, IES-128E through IES-132E, IES-135E, IES-136E, IES-139E, ES-140E, IES-141E through IES-155E, IES-157, IES-158E through IES-160E, and ES-162E through ES-172E**) emissions of nitrogen oxides (as NO_2) shall be less than 242 tons per consecutive 12-month period.

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

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

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

c. The Permittee shall demonstrate compliance with the emissions limit in Section 2.2 A.1.a by meeting the requirements in the primary compliance monitoring scenario in Section 2.2 A.1.d through g or by meeting the requirements in the alternative compliance monitoring scenario in Section 2.2 A.1.h through k.

PRIMARY COMPLIANCE MONITORING SCENARIO

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

d. The Permittee shall record each month the monthly and total annual hours of operation for emergency generators **(ID Nos. ID No. ES-11, ES-17, ES-21, ES-33, ES-36, ES-38, ES-56, ES-58, ES-59, and ES-60).** The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained or if the hours of operation for any of these emergency generators exceed 500 hours per consecutive 12-month period.

e. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amount of each fuel fired in natural gas/No. 2 fuel oil-fired boilers **(ID Nos. ES-31, ES-32, and ES-39).** The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the amount of fuel used in these boilers is not monitored.

f. The Permittee shall calculate and record each month the monthly and total annually emissions of nitrogen oxides (as NO_2) from emergency generators **(ID Nos. ES-11, ES-17, ES-21, ES-33, ES-36, ES-38, ES-56, ES-58, ES-59, and ES-60)** and boilers **(ID No. ES-31, ES-32, and ES-39)** according to the following equation:

$$NO_x \text{ tons/month} = [\sum\{20 \text{ lbs}/10^3\text{gallon} \times \text{F gal/month}\} + \sum\{100 \text{ lbs}/10^6 \text{ scf} \times \text{G scf/month} + \sum\{0.024 \text{ lbs/hp-hr} \times \text{H hp-hr/month}\}] / 2000 \text{ lbs/ton}$$

Where: F = No. 2 fuel oil usage in gallons per month for each boiler (**ID Nos. ES-31, ES-32, and ES-39**), if it burned this fuel in a given month

G = Natural gas usage in standard cubic feet per month for each boiler (**ID Nos. ES-31, ES-32, and ES-39**), if it burned this fuel in a given month

H = Combined power output in hp-hr per month for each diesel fired emergency generator (**ID Nos. ES-11, ES-17, ES-21, ES-33, ES-36, ES-38, ES-56, ES-58, ES-59,and ES-60)**, if it burned this fuel in a given month

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the monthly and total annually NOx emissions from generators (**ID Nos. ES-11, ES-17, ES-21, ES-33, ES-36, ES-38, ES-56, ES-58, ES-59 and ES-60**) and boilers (**ID Nos. ES-31, ES-32, and ES-39**) are not calculated and recorded in a logbook (written or electronic format) each month.

g. Compliance with the emissions limit in Section 2.2 A.1.a is demonstrated when the combined emissions of nitrogen oxides (as NO_2) from boilers (**ID Nos. ES-31, ES-32, and ES-39**) and emergency generators (**ID Nos. ES-11, ES-17, ES-21, ES-33, ES-36, ES-38, ES-56, ES-58, ES-59, and ES-60**) are 53 tons or less for each consecutive 12-month period. The Permittee shall be deemed in noncompliance with 15A NCAC 02D. 0530 if the combined emissions of NOx from these boilers and emergency generators on a 12-month rolling basis exceed this limit.

ALTERNATIVE COMPLIANCE MONITORING SCENARIO

Sections 2.2 A.1. h to k only apply when compliance with the emissions limit in Section 2.2.A.1.a is not demonstrated according to Section 2.2 A.1.d through g above.

h. The Permittee shall record each month the monthly and total annually hours of operation for affected emergency generators (**ID Nos. ES-11, ES-17, ES-21, ES-25, ES-33, ES-36, ES-38, ES-56, ES-58 through ES-60, ES-05E to ES-10E, ES-15E, ES-16E, ES-19E, ES-22E through ES-24E, ES-26E, ES-30E, ES-36E, ES-37E, ES-40E, ES-42E, ES-45E, ES-47E through ES-50E, ES-53E, ES-55E, ES-57E, ES-58E, ES-61E through ES-69E, ES-71E, ES-73E through ES-76E, ES-79E, ES-80E, ES-82E through ES-88E, ES-91E, ES-94E through ES-95E, ES-97E through ES-100E, ES-102E through ES-104E, ES-106E to ES-111E, ES-114E to ES-118E, and ES-120E).** The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained or if the hours of operation for any of these emergency generators exceed 500 hours per consecutive 12-month period.

i. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amount of each fuel fired in each affected boilers (**ID Nos. ES-31, ES-32, ES-39, ES-46 through E-55, ES-01B, ES-02B, ES-04B through ES-14B, ES-17B, ES-18B and ES-20B to ES-22B).** The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the amount of fuel used in these boilers is not monitored.

j. The use of fuel shall be limited such that facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2, ES-3A, ES-4A, ES-5A, ES-27, ES-28, ES-45, ES-48, ES-49, ES-57, ES-61 through ES-63, IES-64, ES-137, ES-138, ES-23B through ES-26B, IES-27B through IES-30B, IES-32B through IES-35B, IES-43B through IES-62B, IES-161, IES-08E-R, IES-52E-R, IES-65E-R, IES-123E through IES-125E, IES-128E through IES-132E, IES-135E, IES-136E, IES-139E, ES-140E, IES-141E, IES-143E through IES-146E, IES-154E, IES-157, IES-158E through IES-160E, and ES-162E through ES-172E)ES-158E through ES-160E, ES-162E, and ES-163E**) nitrogen oxides (as NO_2) emissions are less than 242 tons for each consecutive 12-month period. Calculations shall be made monthly and recorded in a logbook (written or electronic format), according to the following equation:

NO_x tons/month = [$\sum${20 lbs/10^3 gallon × A gallon/month} + $\sum${100 lbs/10^6 scf × C_1 scf/month} + $\sum${280 lbs/10^6 scf × C_2 scf/month} + $\sum${0.031 lbs/hp-hr × D_1 hp-hr/month} + $\sum${0.024 lbs/hp-hr × D_2 hp-hr/month} + $\sum${0.018 lbs/hp-hr × E hp-hr/month}] / 2000 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
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), 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.

k. Compliance is demonstrated when the combined facility-wide, except **ID Nos. ES-1A, ES-1B, ES-2, ES-3A, ES-4A, ES-5A, ES-27, ES-28, ES-45, ES-48, ES-49, ES-57, ES-61 through ES-63, IES-64, IES-137, IES-138, ES-23B through ES-26B, IES-27B through IES-36B, IES-38B through IES-62B, IES-161, IES-08E-R, IES-52E-R, IES-65E-R, IES-123E through IES-125E, IES-128E through IES-132E, IES-135E, IES-136E, IES-139E, ES-140E, IES-141E through IES-154E, IES-157, IES-158E through IES-160E, and ES-162E through ES-172E),** emissions of nitrogen oxides (as NO_2), are less than the limit in Section 2.2 A.1.a above during each consecutive 12-month period. The Permittee shall be deemed in noncompliance with 15A NCAC 02D. 0530 if the combined emissions of NOx from these sources on a 12-month rolling basis exceed this limit.

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

l. 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 either the monthly nitrogen oxides (as NO_2) emissions for the previous 17 months calculated according to the equation in Section 2.2 A.1.f (Primary Compliance Monitoring Scenario) or the equation in Section 2.2 A.1.j (Alternative Compliance Monitoring Scenario) and identify the compliance monitoring scenario being followed. The emissions must be calculated for each of the 12-month periods over the previous 17 months. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, the facility-wide (**except ID Nos. ES-1A, ES-1B, ES-2, ES-3A, ES-4A, ES-5A, ES-27, ES-28, ES-45, ES-48, ES-49, ES-57, ES-61 through ES-63, IES-64, ES-137, ES-138, ES-23B through ES-26B, IES-27B through IES-36B, IES-38B through IES-62B, IES-161, IES-08E-R, IES-52E-R, IES-65E-R, IES-123E through IES-125E, IES-128E through IES-132E, IES-135E, IES-136E, IES-139E, ES-140E, IES-141E through IES-154E, , IES-158E through IES-160E, , IES-154E, IES-155E, IES-157, ES-158E through ES-160E, and ES-162E through ES-172E**) emissions of sulfur dioxide (SO_2) shall be less than 247 tons per consecutive 12-month period.

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

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

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

c. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amount of each fuel fired in natural gas/No. 2 fuel oil-fired boilers (**ID Nos. ES-31, ES-32, and ES-39).** The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the amount of fuel used in these boilers is not monitored.

d. The Permittee shall calculate and record each month the monthly and total annually emissions of sulfur dioxide (SO_2) from natural gas/No. 2 fuel oil-fired boilers (**ID No. ES-31, ES-32, and ES-39)** according to the following equation:

SO_2 tons/month = $[\sum\{142S_2$ lbs/10^3 gallon x F gallon/month$\} + \sum\{0.6$ lbs/10^6 scf x G scf/month$\}] / 2000$ lbs/ton

Where: F = Total No. 2 fuel oil usage in gallons per month for boilers (**ID Nos. ES-31, ES-32, and ES-39**), if it burned this fuel in a given month
G = Total natural gas usage in standard cubic feet per month for boilers (**ID Nos. ES-31, ES-32, and ES-39**), if it burned this fuel in a given month
S_2 = Weight percent of sulfur in No. 2 fuel oil

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the monthly and total annually SO_2 emissions boilers (**ID Nos. ES-31, ES-32, and ES-39**), are not calculated and recorded in a logbook (written or electronic format) each month.

e. Compliance with the emissions limit in Section 2.2 A.2.a is demonstrated when the combined emissions of SO_2 from boilers (**ID Nos. ES-31, ES-32, and ES-39**) are 154 tons or less for each consecutive 12-month period. The Permittee shall be deemed in noncompliance with 15A NCAC 02D. 0530 if the combined emissions of SO_2 from these boilers on a 12-month rolling basis exceed this limit.

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

f. 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 combined SO_2 emissions from boilers (**ID Nos. ES-31, ES-32, and ES-39**) for the previous 17 months calculated according to the equation in Section 2.2 A.2.e. The emissions must be calculated for each of the 12-month periods over the previous 17 months. All instances of deviations from the requirements of this permit must be clearly identified.

State-enforceable only

3. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

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

Source ID	Description	Toxic Air Pollutant	Emission Rate	Unit
ES-1A and ES-1B	Combustion Turbines including Heat Recovery Steam Generator, located at Building No. 086 *Emissions Rates for Each Source*	Acrolein	5.97E-4	Lb/hr
		Benzene	4.5E1	Lb/yr
		Beryllium	2.53E-1	Lb/yr
		1,3 Butadiene	1.31E1	Lb/yr
		Cadmium	3.92	Lb/yr
		Formaldehyde	6.62E-2	Lb/hr
		Manganese	1.77	Lb/24 hr
		Mercury	2.69E-3	Lb/24 hr
		Nickel	1.03E-2	Lb/24 hr
ES-46	Boiler, located at Building No. 171	Beryllium	8.54E-2	Lb/yr
		Cadmium	8.54E-2	Lb/yr
		Formaldehyde	1.11E-3	Lb/hr
		Manganese	4.68E-4	Lb/24 hr
		Mercury	2.34E-4	Lb/24 hr
		Nickel	2.34E-4	Lb/24 hr
ES-47 ES-48 ES-49	Boilers, located at Building Nos. 171, 172, and 173	Beryllium	1.1E-1	Lb/yr
		Cadmium	1.1E-1	Lb/yr
		Formaldehyde	1.44E-3	Lb/hr

Source ID	Description	Toxic Air Pollutant	Emission Rate	Unit
ES-50 ES-51	*Emissions Rates for Each Source*	Manganese	6.05E-4	Lb/24 hr
		Mercury	3.01E-4	Lb/24 hr
		Nickel	3.02E-4	Lb/24 hr
ES-52 and ES-53	Boilers, located at Building No. 174 *Emissions Rates for Each Source*	Beryllium	7.73E-2	Lb/yr
		Cadmium	7.73E-2	Lb/yr
		Formaldehyde	1.01E-3	Lb/hr
		Manganese	4.23E-4	Lb/24 hr
		Mercury	2.12E-4	Lb/24 hr
		Nickel	2.12E-4	Lb/24 hr
ES-54 and ES-55	Boilers, located at Building No. 172F *Emissions Rates for Each Source*	Beryllium	9.86E-2	Lb/yr
		Cadmium	9.86E-2	Lb/yr
		Formaldehyde	1.29E-3	Lb/hr
		Manganese	5.4E-4	Lb/24 hr
		Mercury	2.7E-4	Lb/24 hr
		Nickel	2.7E-4	Lb/24 hr
ES-01B and ES-02B	Boilers, located at Building No. 730 *Emissions Rates for Each Source*	Benzene	6.76E-2	Lb/yr
		Beryllium	3.86E-4	Lb/yr
		Cadmium	3.54E-2	Lb/yr
		Formaldehyde	2.76E-4	Lb/hr
		n-Hexane	1.59E-1	Lb/24 hr
		Manganese	3.35E-5	Lb/24 hr
		Mercury	2.29E-5	Lb/24 hr
		Nickel	1.85E-4	Lb/24 hr
ES-04B and ES-05B	Boilers, located at Building No. 731 *Emissions Rates for Each Source*	Benzene	3.79E-2	Lb/yr
		Beryllium	2.16E-4	Lb/yr
		Cadmium	1.98E-2	Lb/yr
		Formaldehyde	1.54E-4	Lb/hr
		n-Hexane	8.89E-2	Lb/24 hr
		Manganese	1.88E-5	Lb/24 hr
		Mercury	1.28E-5	Lb/24 hr
		Nickel	1.04E-4	Lb/24 hr
ES-06B and ES-23B	Boilers, located at Building Nos. 083 and 158B *Emissions Rates for Each Source*	Benzene	7.21E-3	Lb/yr
		Beryllium	4.12E-5	Lb/yr
		Cadmium	3.78E-3	Lb/yr
		Formaldehyde	2.94E-5	Lb/hr
		n-Hexane	1.69E-2	Lb/24 hr
		Manganese	3.58E-6	Lb/24 hr
		Mercury	2.45E-6	Lb/24 hr
		Nickel	1.98E-5	Lb/24 hr
ES-07B	Boiler, located at Building No. 166	Benzene	5.95E-2	Lb/yr
		Beryllium	3.4E-4	Lb/yr
		Cadmium	3.12E-2	Lb/yr
		Formaldehyde	2.43E-4	Lb/hr
		n-Hexane	1.4E-1	Lb/24 hr
		Manganese	2.95E-5	Lb/24 hr
		Mercury	2.02E-5	Lb/24 hr
		Nickel	1.63E-4	Lb/24 hr
ES-08B	Boiler, located at Building No. 164B	Benzene	6.85E-2	Lb/yr
		Beryllium	3.92E-4	Lb/yr
		Cadmium	3.59E-2	Lb/yr
		Formaldehyde	2.79E-4	Lb/hr
		n-Hexane	1.61E-1	Lb/24 hr

Source ID	Description	Toxic Air Pollutant	Emission Rate	Unit
		Manganese	3.4E-5	Lb/24 hr
		Mercury	2.32E-5	Lb/24 hr
		Nickel	1.88E-4	Lb/24 hr
ES-09B	Boiler, located at Building No. 163	Benzene	2.71E-2	Lb/yr
		Beryllium	1.55E-4	Lb/yr
		Cadmium	1.42E-2	Lb/yr
		Formaldehyde	1.1E-4	Lb/hr
		n-Hexane	6.35E-2	Lb/24 hr
		Manganese	1.34E-5	Lb/24 hr
		Mercury	9.18E-6	Lb/24 hr
		Nickel	7.41E-5	Lb/24 hr
ES-11B	Boiler, located at Building No. 048	Benzene	8.66E-2	Lb/yr
		Beryllium	4.95E-4	Lb/yr
		Cadmium	4.53E-2	Lb/yr
		Formaldehyde	3.53E-4	Lb/hr
		n-Hexane	2.03E-1	Lb/24 hr
		Manganese	4.29E-5	Lb/24 hr
		Mercury	2.94E-5	Lb/24 hr
		Nickel	2.37E-4	Lb/24 hr
ES-12B	Boiler, located at Building No. 133	Benzene	2.52E-2	Lb/yr
		Beryllium	1.44E-4	Lb/yr
		Cadmium	1.32E-2	Lb/yr
		Formaldehyde	1.03E-4	Lb/hr
		n-Hexane	5.93E-2	Lb/24 hr
		Manganese	1.25E-5	Lb/24 hr
		Mercury	8.56E-6	Lb/24 hr
		Nickel	6.92E-5	Lb/24 hr
ES-13B	Boiler, located at Building No. 781A	Benzene	5.23E-2	Lb/yr
		Beryllium	2.99E-4	Lb/yr
		Cadmium	2.74E-2	Lb/yr
		Formaldehyde	2.13E-4	Lb/hr
		n-Hexane	1.23E-1	Lb/24 hr
		Manganese	2.59E-5	Lb/24 hr
		Mercury	1.77E-5	Lb/24 hr
		Nickel	1.43E-4	Lb/24 hr
ES-17B and ES-18B	Boilers, located at Building No. 710 *Emissions Rates for Each Source*	Benzene	9.02E-2	Lb/yr
		Beryllium	5.15E-4	Lb/yr
		Cadmium	4.72E-2	Lb/yr
		Formaldehyde	3.68E-4	Lb/hr
		n-Hexane	2.12E-1	Lb/24 hr
		Manganese	4.47E-5	Lb/24 hr
		Mercury	3.06E-5	Lb/24 hr
		Nickel	2.47E-4	Lb/24 hr
ES-20B and ES-21B	Boilers, located at Building Nos. 444A and 444B, respectively *Emissions Rates for Each Source*	Benzene	8.48E-2	Lb/yr
		Beryllium	4.84E-4	Lb/yr
		Cadmium	4.44E-2	Lb/yr
		Formaldehyde	3.46E-4	Lb/hr
		n-Hexane	1.99E-1	Lb/24 hr
		Manganese	4.2E-5	Lb/24 hr
		Mercury	2.88E-5	Lb/24 hr
		Nickel	2.32E-4	Lb/24 hr
ES-22B	Boiler, located at Building No. 129	Beryllium	8.41E-2	Lb/yr

Source ID	Description	Toxic Air Pollutant	Emission Rate	Unit
		Cadmium	8.41E-2	Lb/yr
		Formaldehyde	1.1E-3	Lb/hr
		Manganese	4.61E-4	Lb/24 hr
		Mercury	2.3E-4	Lb/24 hr
		Nickel	2.3E-4	Lb/24 hr
ES-23B	Boiler, located at Building No. 158B	Benzene	7.21E-3	Lb/yr
		Beryllium	4.12E-5	Lb/yr
		Cadmium	3.78E-3	Lb/yr
		Formaldehyde	2.94E-5	Lb/hr
		n-Hexane	1.69E-2	Lb/24 hr
		Manganese	3.58E-6	Lb/24 hr
		Mercury	2.45E-6	Lb/24 hr
		Nickel	1.98E-5	Lb/24 hr
ES-25B	Boiler, located at Building No. 129	Benzene	2.53E-2	Lb/yr
		Beryllium	1.45E-4	Lb/yr
		Cadmium	3.68E-2	Lb/yr
		Formaldehyde	4.81E-4	Lb/hr
		n-Hexane	5.93E-2	Lb/24 hr
		Manganese	2.02E-4	Lb/24 hr
		Mercury	1.01E-4	Lb/24 hr
		Nickel	6.92E-5	Lb/24 hr
ES-26B	Boiler, located at Building No. 710A	Benzene	2.71E-3	Lb/yr
		Beryllium	1.55E-5	Lb/yr
		Cadmium	1.42E-3	Lb/yr
		Formaldehyde	1.1E-5	Lb/hr
		n-Hexane	6.35E-3	Lb/24 hr
		Manganese	1.34E-6	Lb/24 hr
		Mercury	9.18E-7	Lb/24 hr
		Nickel	7.41E-6	Lb/24 hr
ES-11	Generator, located at Building No. 720A	Acrolein	7.4E-5	Lb/hr
		Benzene	6.38E1	Lb/yr
		Formaldehyde	7.41E-4	Lb/hr
ES-17 and ES-33	Generators, located at Building Nos. 029 and 302 *Emissions Rates for Each Source*	Acrolein	5.55E-5	Lb/hr
		Benzene	4.79E1	Lb/yr
		Formaldehyde	5.55E-4	Lb/hr
ES-21	Generator, located at Building No. 710	Acrolein	5.18E-5	Lb/hr
		Benzene	4.47E1	Lb/yr
		Formaldehyde	5.18E-4	Lb/hr
ES-25	Generator, located at Building No. 782A	Acrolein	5.92E-5	Lb/hr
		Benzene	5.1E1	Lb/yr
		Formaldehyde	5.93E-4	Lb/hr
ES-36	Generator, located at Building No. 300A	Acrolein	9.25E-5	Lb/hr
		Benzene	7.98E1	Lb/yr
		Formaldehyde	9.26E-4	Lb/hr
ES-38	Generator, located at Building No. 215	Acrolein	6.66E-5	Lb/hr
		Benzene	5.74E1	Lb/yr
		Formaldehyde	6.67E-4	Lb/hr
ES-56	Generator, located at Building No. 075	Acrolein	4.44E-5	Lb/hr
		Benzene	3.83E1	Lb/yr
		Formaldehyde	4.44E-4	Lb/hr
ES-57	Generator, located at Building No.	Acrolein	7.4E-5	Lb/hr

Source ID	Description	Toxic Air Pollutant	Emission Rate	Unit
	300C	Benzene	6.38E1	Lb/yr
		Formaldehyde	7.41E-4	Lb/hr
ES-58 and ES-59	Generators, located at Building No. 301 *Emissions Rates for Each Source*	Acrolein	8.14E-5	Lb/hr
		Benzene	7.02E1	Lb/yr
		Formaldehyde	8.15E-4	Lb/hr
ES-60	Generator, located at Building No. 308	Acrolein	4.07E-5	Lb/hr
		Benzene	3.51E1	Lb/yr
		Formaldehyde	4.07E-4	Lb/hr
ES-05E ES-10E ES-15E	Generators, located at Building Nos. 047, 309 and 054, respectively *Emissions Rates for Each Source*	Acrolein	2.6E-4	Lb/hr
		Benzene	2.3E1	Lb/yr
		1,3 Butadiene	9.65E-1	Lb/yr
		Formaldehyde	3.32E-3	Lb/hr
ES-06E ES-19E	Generators, located at Building Nos. 730 and 055, respectively *Emissions Rates for Each Source*	Acrolein	3.04E-4	Lb/hr
		Benzene	2.69E1	Lb/yr
		1,3 Butadiene	1.13	Lb/yr
		Formaldehyde	3.88E-3	Lb/hr
ES-07E	Generator, located at Building No. 731	Acrolein	3.37E-5	Lb/hr
		Benzene	2.9E1	Lb/yr
		Formaldehyde	3.37E-4	Lb/hr
ES-09E ES-16E ES-26E ES-99E	Generators, located at Building Nos. 700, 072, 782B, and 135, respectively *Emissions Rates for Each Source*	Acrolein	3.7E-5	Lb/hr
		Benzene	3.19E1	Lb/yr
		Beryllium	9.77E-6	Lb/yr
		Cadmium	8.96E-4	Lb/yr
		Formaldehyde	3.7E-4	Lb/hr
		n-Hexane	4.02E-3	Lb/24 hr
		Manganese	8.48E-7	Lb/24 hr
		Mercury	5.8E-7	Lb/24 hr
		Nickel	4.69E-6	Lb/24 hr
ES-22E ES-36E ES-40E ES-42E ES-74E ES-87E	Generators, located at Building Nos. 120, 170A, 238, 024, G253, 063, and 705A, respectively *Emissions Rates for Each Source*	Acrolein	2.17E-4	Lb/hr
		Benzene	1.92E1	Lb/yr
		1,3 Butadiene	8.04E-1	Lb/yr
		Formaldehyde	2.77E-3	Lb/hr
ES-23E ES-30E ES-109E	Generators, located at Building Nos. 048, 713, and 135F, respectively *Emissions Rates for Each Source*	Acrolein	3.47E-4	Lb/hr
		Benzene	3.07E1	Lb/yr
		1,3 Butadiene	1.29	Lb/yr
		Formaldehyde	4.43E-3	Lb/hr
ES-24E	Generator, located at Building No. 076	Benzene	7.7E-2	Lb/yr
		Beryllium	4.4E-4	Lb/yr
		Cadmium	4.03E-2	Lb/yr
		Formaldehyde	3.14E-4	Lb/hr
		n-Hexane	1.81E-1	Lb/24 hr
		Manganese	3.82E-5	Lb/24 hr
		Mercury	2.61E-5	Lb/24 hr
		Nickel	2.11E-4	Lb/24 hr
ES-45E	Generator, located at Building No. 129	Acrolein	1.3E-4	Lb/hr
		Benzene	1.15E1	Lb/yr
		1,3 Butadiene	4.82E-1	Lb/yr
		Formaldehyde	1.66E-3	Lb/hr
ES-46E ES-57E	Generators, located at Building Nos. 111, 021, and 166, respectively	Acrolein	3.04E-5	Lb/hr
		Benzene	2.69	Lb/yr

Source ID	Description	Toxic Air Pollutant	Emission Rate	Unit
ES-80E	*Emissions Rates for Each Source*	1,3 Butadiene	1.13E-1	Lb/yr
		Formaldehyde	3.88E-4	Lb/hr
ES-47 ES-61E ES-84E ES-85E ES-86E	Generators, located at Building Nos. 173, 117, 171, 172, and 174, respectively *Emissions Rates for Each Source*	Acrolein	5.21E-5	Lb/hr
		Benzene	4.6	Lb/yr
		1,3 Butadiene	1.93E-1	Lb/yr
		Formaldehyde	6.65E-4	Lb/hr
ES-48E	Generator, located at Building No. 112A	Acrolein	5.56E-5	Lb/hr
		Benzene	4.91	Lb/yr
		1,3 Butadiene	2.06E-1	Lb/yr
		Formaldehyde	7.09E-4	Lb/hr
ES-49E ES-108E	Generators, located at Building Nos. 025, and 094, respectively *Emissions Rates for Each Source*	Acrolein	6.95E-5	Lb/hr
		Benzene	6.14	Lb/yr
		1,3 Butadiene	2.57E-1	Lb/yr
		Formaldehyde	8.86E-4	Lb/hr
ES-53E	Generator, located at Building No. 058A	Acrolein	2.26E-4	Lb/hr
		Benzene	1.99E1	Lb/yr
		1,3 Butadiene	8.36E-1	Lb/yr
		Formaldehyde	2.88E-3	Lb/hr
ES-55E ES-66E	Generators, located at Building Nos. 315 and 040, respectively *Emissions Rates for Each Source*	Acrolein	2.17E-5	Lb/hr
		Benzene	1.92	Lb/yr
		1,3 Butadiene	8.04E-2	Lb/yr
		Formaldehyde	2.77E-4	Lb/hr
IES-56E ES-68E ES-69E ES-73E ES-82E ES-83E ES-120E	Generators, located at Building Nos. 088, 0271A, 271E, 128, 113, 051, and 042, respectively *Emissions Rates for Each Source*	Acrolein	2.6E-5	Lb/hr
		Benzene	2.3	Lb/yr
		1,3 Butadiene	9.65E-2	Lb/yr
		Formaldehyde	3.32E-4	Lb/hr
ES-62E	Generator, located at Building No. 081	Benzene	3.42E-3	Lb/yr
		Beryllium	1.95E-5	Lb/yr
		Cadmium	1.79E-3	Lb/yr
		Formaldehyde	1.39E-5	Lb/hr
		n-Hexane	8.03E-3	Lb/24 hr
		Manganese	1.7E-6	Lb/24 hr
		Mercury	1.16E-6	Lb/24 hr
		Nickel	9.37E-6	Lb/24 hr
ES-63E	Generator, located at Building No. 733	Acrolein	2.87E-5	Lb/hr
		Benzene	2.53	Lb/yr
		1,3 Butadiene	1.06E-1	Lb/yr
		Formaldehyde	3.66E-4	Lb/hr
ES-64E ES-75E ES-76E	Generators, located at Building Nos. 078, 087, and 095, respectively *Emissions Rates for Each Source*	Acrolein	1.74E-4	Lb/hr
		Benzene	1.53E1	Lb/yr
		1,3 Butadiene	6.43E-1	Lb/yr
		Formaldehyde	2.22E-3	Lb/hr
ES-71E ES-110E	Generators, located at Building Nos. 113B, and 084, respectively *Emissions Rates for Each Source*	Acrolein	8.68E-5	Lb/hr
		Benzene	7.67	Lb/yr
		1,3 Butadiene	3.22E-1	Lb/yr
		Formaldehyde	1.11E-3	Lb/hr
ES-67E	Generator, located at Building No. 118	Acrolein	1.74E-5	Lb/hr
		Benzene	1.53	Lb/yr
		1,3 Butadiene	6.43E-2	Lb/yr

Source ID	Description	Toxic Air Pollutant	Emission Rate	Unit
		Formaldehyde	2.22E-4	Lb/hr
ES-79E ES-94E	Generators, located at Building Nos. 712 and 068, respectively	Benzene	2.14E-2	Lb/yr
		Beryllium	1.22E-4	Lb/yr
		Cadmium	1.12E-2	Lb/yr
		Formaldehyde	8.72E-5	Lb/hr
ES-79E ES-94E	Generators, located at Building Nos. 712 and 068, respectively	n-Hexane	5.02E-2	Lb/24 hr
		Manganese	1.06E-5	Lb/24 hr
		Mercury	7.25E-6	Lb/24 hr
		Nickel	5.86E-5	Lb/24 hr
ES-88E	Generator, located at Building No. 034	Benzene	2.57E-3	Lb/yr
		Beryllium	1.47E-5	Lb/yr
		Cadmium	1.34E-3	Lb/yr
		Formaldehyde	1.05E-5	Lb/hr
ES-88E	Generator, located at Building No. 034	n-Hexane	6.02E-3	Lb/24 hr
		Manganese	1.27E-6	Lb/24 hr
		Mercury	8.7E-7	Lb/24 hr
		Nickel	7.03E-6	Lb/24 hr
		Benzene	5.64E-3	Lb/yr
		Beryllium	3.22E-5	Lb/yr
		Cadmium	2.96E-3	Lb/yr
		Formaldehyde	2.3E-5	Lb/hr
ES-95E	Generators, located at Building Nos. 210	n-Hexane	1.33E-2	Lb/24 hr
		Manganese	2.8E-6	Lb/24 hr
		Mercury	1.91E-6	Lb/24 hr
		Nickel	1.55E-5	Lb/24 hr
		Acrolein	8.68E-5	Lb/hr
		Benzene	7.67	Lb/yr
		Beryllium	9.77E-5	Lb/yr
		1,3 Butadiene	3.22E-1	Lb/yr
ES-95E ES-97E	Generators, located at Building Nos. 210 Generator, located at Building No. 051	Cadmium	8.96E-3	Lb/yr
		Formaldehyde	1.11E-3	Lb/hr
		n-Hexane	4.02E-2	Lb/24 hr
		Manganese	8.48E-6	Lb/24 hr
		Mercury	5.8E-6	Lb/24 hr
		Nickel	4.69E-5	Lb/24 hr
		Acrolein	6.51E-5	Lb/hr
		Benzene	5.75	Lb/yr
		1,3 Butadiene	2.41E-1	Lb/yr
		Formaldehyde	8.31E-4	Lb/hr
ES-102E	Generator, located at Building No. 164C	Acrolein	1.74E-5	Lb/hr
		Benzene	1.53	Lb/yr
		1,3 Butadiene	6.43E-2	Lb/yr
		Cadmium		Lb/yr
ES-102E ES-103E ES-106E ES-104E	Generator, located at Building No. 164C Generators, located at Building Nos. 250A and 018, respectively Generator, located at Building No. 172F	Formaldehyde	2.22E-4	Lb/hr
		Acrolein	2.6E-5	Lb/hr
		Benzene	2.3	Lb/yr
		1,3 Butadiene	9.65E-2	Lb/yr
		Formaldehyde	3.32E-4	Lb/hr
ES-104E	Generator, located at Building No. 172F	Benzene	1.03E-2	Lb/yr
		Beryllium	5.86E-5	Lb/yr
		Cadmium	5.37E-3	Lb/yr

Source ID	Description	Toxic Air Pollutant	Emission Rate	Unit
		Formaldehyde	4.18E-5	Lb/hr
ES-104E ES-105E	Generator, located at Building No. 172F Generator, located at Building No. 444	n-Hexane	2.41E-2	Lb/24 hr
		Manganese	5.09E-6	Lb/24 hr
		Mercury	3.48E-6	Lb/24 hr
		Nickel	2.81E-5	Lb/24 hr
		Benzene	1.62E-2	Lb/yr
		Beryllium	9.28E-5	Lb/yr
		Cadmium	8.51E-3	Lb/yr
		Formaldehyde	6.62E-5	Lb/hr
ES-105E ES-111E	Generator, located at Building No. 444 Generator, located at Building No. 712	n-Hexane	3.82E-2	Lb/24 hr
		Manganese	8.05E-6	Lb/24 hr
		Mercury	5.51E-6	Lb/24 hr
		Nickel	4.45E-5	Lb/24 hr
		Benzene	2.57E-2	Lb/yr
		Beryllium	1.47E-4	Lb/yr
		Cadmium	1.34E-2	Lb/yr
		Formaldehyde	1.05E-4	Lb/hr
ES-111E ES-114E	Generator, located at Building No. 712 Generator, located at Building No. 038	n-Hexane	6.02E-2	Lb/24 hr
		Manganese	1.27E-5	Lb/24 hr
		Mercury	8.7E-6	Lb/24 hr
		Nickel	7.03E-5	Lb/24 hr
		Acrolein	1.3E-5	Lb/hr
		Benzene	1.15	Lb/yr
		1,3 Butadiene	4.82E-2	Lb/yr
		Formaldehyde	1.66E-4	Lb/hr
ES-122E	Generator, located at Building No. 165A	Benzene	1.71E-3	Lb/yr
		Beryllium	9.77E-6	Lb/yr
		Cadmium	8.96E-4	Lb/yr
		Formaldehyde	6.97E-6	Lb/hr
ES-122E	Generator, located at Building No. 165A	n-Hexane	4.02E-3	Lb/24 hr
		Manganese	8.48E-7	Lb/24 hr
		Mercury	5.8E-7	Lb/24 hr
		Nickel	4.69E-6	Lb/24 hr

b. The Permittee has submitted a toxic air pollutant dispersion modeling analysis received May 2, 2011 by the Air Quality Analysis Branch (AQAB) for the facility's toxic air pollutant emissions as listed in the above table. The modeling analysis was reviewed and approved by the AQAB on May 20, 2011. Placement of the emission sources, configuration of the emission points, and operation of the sources shall be in accordance with the submitted dispersion modeling analysis and should reflect any changes from the original analysis submittal as outlined in the AQAB review memo.

State-enforceable only

4. 15A NCAC 02Q .0711: EMISSION RATES REQUIRING A PERMIT

a. The facility shall be operated and maintained in such a manner that any new, existing or increased actual emissions of any Toxic Air Pollutant (TAP) listed in 15A NCAC 02Q .0711 or in this permit from all sources at the facility (excluding those sources exempt under 15A NCAC 02Q .0702 "Exemptions"), including fugitive emissions and emission sources not otherwise required to have a permit, will not exceed its respective TAP permitting emission rates (TPER) listed in 15A NCAC 02Q .0711 without first obtaining an air permit to construct or operate.

b. PRIOR to exceeding any of the TPERs listed in 15A NCAC 02Q .0711, the Permittee shall be responsible for obtaining an air permit to emit TAPs and for demonstrating compliance with the requirements found in 15A NCAC 02D .1100 “Control of Toxic Air Pollutants.”

c. The Permittee shall maintain at the facility records of operational information sufficient for demonstrating to the Division of Air Quality staff that actual TAPs are less than the rates listed in 15A NCAC 02Q .0711.

d. The TPER table listed below is provided to assist the Permittee in determining when an air permit is required pursuant to 15A NCAC 02Q .0711 and may not represent all TAPs being emitted from the facility. This table will be updated at such time as the permit is either modified or renewed.

Pollutant (CAS Number)	Carcinogens, lb/yr	Chronic Toxicants, lb/day	Acute Systemic Toxicants, lb/hr	Acute Irritants, lb/hr
Soluble Chromate Compounds, as Chromium VI Equivalent		0.013		
Fluorides		0.34	0.064	
Toluene (108-88-3)		98		14.4

B. Two natural gas/No. 2 fuel oil-fired boilers (ID Nos. ES-3A and ES-4A), each boiler equipped with dual-fuel low-NOx burners, located at Building No. 029

One natural gas/No. 2 fuel oil-fired boiler including low-NO_x burner equipment (ID No. ES-45), located at Building No. 705A

Twenty natural gas/No. 2 fuel oil-fired boilers including:

- **Boiler (ID No. ES-02), located at Building 029**
- **Boilers (ID Nos. ES-27 and ES-28), located at Building No. 705A**
- **Boilers (ID Nos. ES-31, ES-32, ES-39 and ES-61), located at Building No. 302**
- **Boilers (ID Nos. ES-46 and ES-47), located at Building No. 171**
- **Boilers (ID Nos. ES-48 and ES-49), located at Building No. 172**
- **Boilers (ID Nos. ES-50 and ES-51), located at Building No. 173**
- **Boilers (ID Nos. ES-52 and ES-53), located at Building No. 174**
- **Boilers (ID Nos. ES-54 and ES-55), located at Building No. 172F**
- **Boiler (ID No. ES-25B), located at Building No. 129**

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

Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	Boilers **(ID Nos. ES-3A and ES-4A)** **See Section 2.1 B.1** 40 CFR Part 63 Subpart JJJJJJ	15A NCAC 02D .1111
	Boilers **(ID Nos. ES-02, ES-27, ES-28, ES-31, ES-32, ES-39, ES-45, and ES-61)** **See Section 2.1 B.2** 40 CFR Part 63 Subpart JJJJJJ	15A NCAC 02D .1111
	Boilers **(ID Nos. ES-46 through ES-55, and ES-25B)** **See Section 2.1 B.3**	15A NCAC 02Q .0317 MACT Avoidance

1. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

a. For the affected boilers (**ID Nos. ES-3A and ES-4A**), the Permittee shall comply upon startup with all applicable provisions, including notification, testing, monitoring, record keeping, and reporting requirements, contained in Environmental Management Commission Standard 15A NCAC 02D .1111, "Maximum Achievable Control Technology" as promulgated in 40 CFR Part 63, Subpart JJJJJJ, "National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers", including Subpart A "General Provisions."

b. Particulate matter (filterable) emissions, when burning No. 2 fuel oil in affected boilers, shall not exceed 0.03 lb/million Btu of heat input each [40 CFR 63.11201(a) and Table 1 to Subpart JJJJJJ]

c. The emissions standards in Section 2.2 B.1.b above shall apply at all times that the affected boilers are operating, except during periods of startup and shutdown as defined in 40 CFR 63.11237, during which time, the requirements in Table 2 to Subpart JJJJJJ apply. [§63.11201(d)]

d. The Permittee shall minimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures. If manufacturer's recommended procedures are not available, the Permittee shall follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. [40 CFR 63.11201(b) and 63.11223(g), and Table 2 to Subpart JJJJJJ]

e. At all times, the Permittee shall operate and maintain each affected boiler, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR 63.11205(a)]

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

f. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above any applicable limit, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.

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

g. The Permittee shall conduct each biennial tune-up no more than 25 months after the previous tune-up. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup. The Permittee shall conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. During the tune-up, the Permittee shall perform the following:
   i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may delay the burner inspection until the next scheduled unit shutdown, but must inspect each burner at least once every 36 months).
   ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
   iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the Permittee may delay the burner inspection until the next scheduled unit shutdown).
   iv. Optimize total emissions of carbon monoxide (CO). This optimization should be consistent with the manufacturer's specifications, if available.
   v. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
   vi. Maintain onsite a report containing:
      (A) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.
      (B) A description of any corrective actions taken as a part of the tune-up of the boiler.
      (C) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the Permittee does not comply with the requirements of this Section 2.2 B.1.g. [40 CFR 63.11223(a), (b)]

h. If any affected boiler is equipped with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up in Section 2.2 B.1.g above, the Permittee may conduct a tune-up of the boiler every 5 years as specified in paragraphs (b)(1) through (7) of 40 CFR 63.11223 (i.e., Section 2.2 B.1.g above) instead of every 2 years. Each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up. The Permittee may delay the burner inspection specified in paragraph (b)(1) of 40 CFR 63.11223 and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of 40 CFR 63.11223 until the next scheduled unit shutdown, but the Permittee shall inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the Permittee does not comply with the requirements of this Section 2.2 B.1.h. [40 CFR 63.11223(c)]

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

i. In addition to any other recordkeeping requirements of the EPA, the Permittee shall maintain the following records as defined under 40 CFR 63.11222(a)(2), and 40 CFR 63.11225(c), (d) and (g):
   i. Copies of all required notifications and reports submitted to comply with this subpart and all documentation supporting any initial Notification or Notification of Compliance Status submitted.
   ii. Records documenting conformance with the work practices, emission reduction measures, and management practices required by 40 CFR 63.11214 and 63.11223, as specified below:
      (A) Tune-up records identifying each boiler, the date of tune-up, the procedures followed for the tune-up, and the manufacturer's specifications to which the boiler was tuned.
      (B) A copy of the energy assessment report required by 40 CFR 63.11214(c).
      (C) Records of monthly fuel use by each boiler including the type(s) of fuel and amount(s) used.
   iii. Records documenting the occurrence and duration of each malfunction of the boiler, associated air pollution control equipment, or associated emissions monitoring equipment.
   iv. Records of the actions taken to minimize emissions, as required by 40 CFR 63.11205(a), during malfunctions

and to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

v. Records of all inspection and monitoring data required by 40 CFR 63.11221 and 63.11222, and the information identified in 40 CFR 63.11223(c)(6).

j. The Permittee shall keep each record for 5 years following the date of the recorded action. For the first two years after the date of a recorded action, the record shall be keep on-site or be readily accessible from a central location by computer or other means that instantly provide access at the site. The Permittee may keep the records off site for the remaining 3 years. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if any required record is not kept for 5 years following the date of each recorded action. [40 CFR 63.11222(a)(2), and 40 CFR 63.11225(c), (d) and (g)]

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

k. The Permittee shall prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information specified in paragraphs (b)(1) through (4) of 40 CFR 63.11225. The Permittee shall submit the report by March 15 when there is any instance described by paragraph (b)(3) of 40 CFR 63.11225 that occurred in the previous calendar year. For boilers that are subject only to a requirement to conduct a biennial or 5-year tune-up according to 40 CFR 63.11223(a) and not subject to emission limits or operating limits, the Permittee may prepare only a biennial or 5-year compliance report as specified in paragraphs (b)(1) and (2) of 40 CFR 63.11225. [40 CFR 63.11225(b)]

l. Within 30 days of making a physical change to the boiler, a fuel switch, or taking a permit limit that results in the applicability of a different subcategory within Subpart JJJJJJ, the Permittee shall provide notice of the date upon which he/she switched fuels, made the physical change, or took a permit limit. [40 CFR 63.11225(g)]

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 must be clearly identified.

2. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

a. For boilers (**ID Nos. ES-02, ES-27, ES-28, ES-31, ES-32, ES-39, ES-45, and ES-61**), the Permittee shall comply with all applicable provisions, including the notification, testing, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1111, "Maximum Achievable Control Technology" as promulgated in 40 CFR 63, Subpart JJJJJJ, "National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers", including Subpart A "General Provisions."

b. At all times, the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. [40 CFR 63.11205(a)]

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

c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above any applicable limit, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.

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

d. The Permittee shall conduct a biennial tune-up of each boiler no more than 25 months after the previous tune-up. If a boiler is not operating on the required date for a tune-up, the tune –up may be delayed as long as it is conducted within 30 days of when the boiler is next operated. The Permittee shall conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up. During the tune-up, the Permittee shall perform the following:

i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may delay the burner inspection until the next scheduled unit shutdown, but must inspect each burner at least once every 36 months).

ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and

functioning properly (the Permittee may delay the burner inspection until the next scheduled unit shutdown, but must inspect each burner at least once every 36 months).

iv. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available.

v. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made.

vi. Maintain onsite a report containing:

(A) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.

(B) A description of any corrective actions taken as a part of the tune-up of the boiler.

(C) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111, if the Permittee does not comply with the requirements of this Section 2.2 B.2.d. [40 CFR 63.11196 and 40 CFR 63.11223, and Table 2 to Subpart JJJJJJ]

e. If any affected boiler is equipped with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up in Section 2.2. B.1.h. above, the Permittee may conduct a tune-up of the boiler every 5 years as specified in paragraphs (b)(1) through (7) of §63.11223 (i.e., Section 2.2 B.2.d above) instead of every 2 years. Each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up. The Permittee may delay the burner inspection specified in paragraph (b)(1) of 40 CFR 63.11223 and inspection of the system controlling the air-to-fuel ratio specified in paragraph (b)(3) of 40 CFR 63.11223 until the next scheduled unit shutdown, but the Permittee shall inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111, if the Permittee does not comply with the requirements of this Section 2.2.B.1.i. [40 CFR 63.11223(c)]

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

f. In addition to any other recordkeeping requirements of the EPA, the Permittee shall maintain the following records as defined under 40 CFR 63.11225(c) and (d):

i. Copies of all required notifications.

ii. Records documenting conformance with the work practices, emission reduction measures, and management practices:

(A) Tune-up records identifying each boiler, the date of tune-up, the procedures followed for the tune-up, and the manufacturer's specifications to which the boiler was tuned.

(B) A copy of the energy assessment required by 40 CFR 63.11214(c).

(C) Records of monthly fuel use by each boiler including the type(s) of fuel and amount(s) used.

iii. Records documenting the occurrence and duration of each malfunction of the boiler, associated air pollution control equipment, or associated emissions monitoring equipment.

iv. Records of the actions taken to minimize emissions, as required by 40 CFR 63.11205(a), during malfunctions and to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

v. Records of all inspection and monitoring data required by 40 CFR 63.11221 and 40 CFR 63.11222, and the information identified in 40 CFR 63.11223(c)(6).

g. The Permittee shall keep each record for 5 years following the date of the recorded action. For the first two years after the date of a recorded action, the record shall be keep on-site or be readily accessible from a central location by computer or other means that instantly provide access at the site. The Permittee may keep the records off site for the remaining 3 years. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if any required record is not kept for 5 years following the date of each recorded action. [40 CFR 63.11222(a)(2), and 40 CFR 63.11225(c), (d) and (g)]

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

h. The Permittee shall prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information specified in paragraphs (b)(1) through (4) of 40 CFR 63.11225. The Permittee shall submit the report by March 15 when there is any instance described by paragraph (b)(3) of 40 CFR 63.11225 that occurred in the previous calendar year. For boilers that are subject only to a requirement to conduct a biennial or 5-year tune-up according to 40 CFR 63.11223(a) and not subject to emission limits or operating limits, the Permittee may prepare only a biennial or 5-year compliance report as specified in paragraphs (b)(1) and (2) of 40 CFR 63.11225. [40 CFR 63.11225(b)]

i. Within 30 days of making a physical change to the boiler, a fuel switch, or taking a permit limit that results in the applicability of a different subcategory within Subpart JJJJJJ, the Permittee shall provide notice of the date upon which he/she switched fuels, made the physical change, or took a permit limit. [40 CFR 63.11225(g)]
j. 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.

3. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

a. In accordance with 15A NCAC 02Q .0317, the Permittee is avoiding applicability of 40 CFR Part 63, Subpart JJJJJJ "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources" for natural gas / No. 2 fuel oil-fired boilers (**ID Nos. ES-46 through ES-55, and ES-25B**). Per 40 CFR 63.11195(e), these sources are exempt from this Subpart because they meet the definition of "gas-fired boilers." In order to maintain this exemption, the Permittee may fire liquid fuel in these boilers only during periods of gas curtailment, gas supply emergencies, startups, or periodic testing on liquid fuel. Periodic testing when firing liquid fuel may not exceed a combined total of 48 hours during any calendar year.
b. If the Permittee fires liquid fuel for reasons other than gas curtailment, gas supply emergencies, startups, or periodic testing on liquid fuel (periodic testing not to exceed a combined total of 48 hours during any calendar year) in a boiler (ID Nos. ES-46 to ES-55 and ES-25B), the boiler is no longer exempt from Subpart JJJJJJ and must be in compliance **as an existing source** upon startup (commencement of firing of the liquid fuel).

Recordkeeping [15A NCAC 02Q .0508(f)]
c. The Permittee shall maintain records that document the time periods when liquid fuel is fired and the reasons the liquid fuel is fired. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these records are not kept.

SECTION 3 - INSIGNIFICANT ACTIVITIES PER 15A NCAC 02Q .0503(8)

Emission Source ID	Emission Source Description
Emergency Generators and Fire Pumps	
IES-08E-R **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (500 kW), located at Building No. 058
IES-51E-R **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (80 kW), located at Building No. 084
IES-52E-R **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (80 kW), located at Building No. 107
IES-56E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (40 kW), located at Building No. 088
IES-58E-R **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (81 kW), located at Building No. 101B
IES-64 **NSPS IIII, GACT ZZZZ, PSD**	One diesel-fired emergency generator (500 kW), located at Building No. 783A
IES-65E-R **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (200 kW), located at Building No. 065
IES-123E **NSPS IIII, GACT ZZZZ, PSD**	One diesel-fired emergency generator (125 kW), located at Building No. 317A
IES-125E **NSPS IIII, GACT ZZZZ, PSD**	One diesel-fired emergency generator (80 kW), located at Building No. 713A
IES-128E **NSPS IIII, GACT ZZZZ, PSD**	One diesel-fired emergency generator (60 kW), located at Building No. 118
IES-129E **NSPS IIII, GACT ZZZZ, PSD**	One diesel-fired emergency generator (250 kW), located at Building No. 124A
IES-130E **NSPS IIII, GACT ZZZZ, PSD**	One diesel-fired emergency generator (30 kW), located at Building No. 774A
IES-131E **NSPS IIII, GACT ZZZZ, PSD**	One diesel-fired emergency generator (400 kW), located at Building No. 102
IES-132E **NSPS IIII, GACT ZZZZ, PSD**	One diesel-fired emergency generator (200 kW), located at Building No. 161
IES-135E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (40 kW), located at Building No. 780A
IES-136E **NSPS JJJJ, GACT ZZZZ**	One natural gas-fired emergency generator (10 kW), located at Building No. 790A
IES-139E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (375 kW), located at Building No. 775
IES-141E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (40 kW), located at Building No. 062
IES-143E **GACT ZZZZ**	One diesel-fired emergency generator (250 kW), located at Building No. 215

IES-144E **NSPS JJJJ, GACT ZZZZ**	One natural gas-fired emergency generator (30 kW), located at Building No. 775
IES-145E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (500 kW), located at Building No. 100
IES-146E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (100 kW), located at Building No. 113
IES-151 **NSPS IIII, GACT ZZZZ**	One diesel-fired fire pump (64 HP), located at Building No. 135J
IES-152	One diesel-fired fire pump (55 HP), located at Building No. 054
IES-153	One diesel-fired fire pump (56 HP), located at Building No. 112B
IES-154E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (125 kW), located at Building No. 070
IES-156E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (40 kW), located at Building No. 12
IES-157E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (300 kW), located at Building No. 302
IES-158E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (400 kW), located at Building No. 250A
IES-159E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (600 kW), located at Building No. 782E
IES-160E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (400 kW), located at Building No. 173
IES-162E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (40 kW), located at Building No. 023
IES-163E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (150 kW), located at Building No. 101C
IES-164E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (175 kW), located at Building No. 164A
IES-165E **NSPS JJJJ, GACT ZZZZ**	One natural gas-fired emergency generator (22 kW), located at Building No. 435
IES-166E **NSPS JJJJ, GACT ZZZZ**	One natural gas-fired emergency generator (50 kW), located at Building No. 444A
IES-168E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (300 kW), located at Building No. 465R
IES-169E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (350 kW), located at Building No. 465R
IES-170E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (125 kW), located at Building No. 024
IES-171E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (60 kW), located at Building No. 054
IES-172E **NSPS IIII, GACT ZZZZ**	One diesel-fired emergency generator (250 kW), located at Building No. 001

Boilers, Ovens and Humidifiers	
IES-27B	One natural gas-fired boiler (1.01 million Btu per hour maximum heat input capacity), located at Building No. 173B
IES-28B and IES-29B	Two natural gas-fired boilers (each 2.34 million Btu per hour maximum heat input capacity), located at Building No. 135F
IES-30B	One natural gas-fired boiler (0.75 million Btu per hour maximum heat input capacity), located at Building No. 001
IES-32B	One natural gas-fired boiler (0.7 million Btu per hour maximum heat input capacity), located at Building No. 142
IES-33B	One natural gas-fired boiler (0.7 million Btu per hour maximum heat input capacity), located at Building No. 143
IES-34B and IES-35B	Two natural gas-fired boilers (each 0.7 million Btu per hour maximum heat input capacity), located at Building No. 144
IES-43B and IES-44B	Two natural gas-fired boilers (each 1.0 million Btu per hour maximum heat input capacity), located at Building No. 792B
IES-45B and IES-46B	Two natural gas-fired boilers (each 8.4 million Btu per hour maximum heat input capacity), located at Building No. 250A
IES-47B	One natural gas-fired boiler (0.7 million Btu per hour maximum heat input capacity), located at Building No. 127R
IES-48B	One natural gas-fired boiler (0.4 million Btu per hour maximum heat input capacity), located at Building No. 340
IES-49B	One natural gas-fired boiler (3.8 million Btu per hour maximum heat input capacity), located at Building No. 164C
IES-50B and IES-51B	Two natural gas-fired boilers (each 0.8 million Btu per hour maximum heat input capacity), located at Building No. 755D
IES-52B	One natural gas-fired boiler (0.8 million Btu per hour maximum heat input capacity), located at Building No. 124A
IES-53B	One natural gas-fired boiler (0.7 million Btu per hour maximum heat input capacity), located at Building No. 124A
IES-54B	One natural gas-fired boiler (0.96 million Btu per hour maximum heat input capacity), located at Building No. 123
IES-55B and IES-56B	Two natural gas-fired boilers (each 3.5 million Btu per hour maximum heat input capacity), located at Building No. 712
IES-57B	One natural gas-fired boiler (2.6 million Btu per hour maximum heat input capacity), located at Building No. 712
IES-59B	One natural gas-fired boiler (0.3 million Btu per hour maximum heat input capacity), located at Building No. 710A
IES-60B	One natural gas-fired boiler (0.3 million Btu per hour maximum heat input capacity), located at Building No. 710B
IES-61B	One natural gas-fired boiler (0.2 million Btu per hour maximum heat input capacity), located at Building No. 126
IES-62B	One natural gas-fired boiler (1.5 million Btu per hour maximum heat input capacity), located at Building No. 001
IES-148	One natural gas-fired drying oven (1.1 million Btu per hour maximum heat input capacity), located at Building No. 775
IES-149	One natural gas-fired drying oven (0.72 million Btu per hour maximum heat input capacity), located at Building No. 700

IES-150	One natural gas-fired drying oven (3.3 million Btu per hour maximum heat input capacity), located at Building No. 700
IES-161	One humidifier (0.2 million Btu per hour maximum heat input capacity), located at Building No. 001
Miscellaneous Activities	
IES-126 ICD-126	Thompson Theater Woodshop and Simple Cyclone, located at Building No. 105
IES-127 **NSPS JJJJ, GACT ZZZZ**	One propane-fired Combined Heat and Power Generator (4.7 kW capacity), located at Building No. 242
IES-157 **PSD**	One No. 2 fuel oil storage tank, located at Building No. 705

[1] Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement (Federal or State) or that the Permittee is exempted from demonstrating compliance with any applicable requirement.

[2] When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 “Control of Toxic Air Pollutants” or 02Q .0711 “Emission Rates Requiring a Permit.”

SECTION 4 - GENERAL CONDITIONS (version 8.0, 07/10/2024)

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

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]
The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application(s) and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of the Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]
In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]
Except as otherwise specified herein, one copy 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

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

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]
The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

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

G. **Title V Permit Modifications**
1. Administrative Permit Amendments [15A NCAC 02Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**
1. Reporting Requirements [15A NCAC 02Q .0508(f)]
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
   a. changes in the information submitted in the application;
   b. changes that modify equipment or processes; or
   c. changes in the quantity or quality of materials processed.

   If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.
2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
   a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
   b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
      i. the changes are not a modification under Title I of the Federal Clean Air Act;
      ii. the changes do not cause the allowable emissions under the permit to be exceeded;
      iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
      iv. the Permittee shall attach the notice to the relevant permit.
   c. The written notification shall include:
      i. a description of the change;
      ii. the date on which the change will occur;
      iii. any change in emissions; and
      iv. any permit term or condition that is no longer applicable as a result of the change.
   d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
   a. the change affects only insignificant activities and the activities remain insignificant after the change; or
   b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

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

1. "Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. *(Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.)*
2. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
3. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
   a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
      i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
         - name and location of the facility;
         - nature and cause of the malfunction or breakdown;
         - time when the malfunction or breakdown is first observed;
         - expected duration; and
         - estimated rate of emissions;
      ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
      iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

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

1. "Permit 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.
2. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) quarterly by notifying the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535. 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.C **Other Requirements under 15A NCAC 02D .0535**

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

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

J. **RESERVED**

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

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

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]
It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]
1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]
The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508(l)]
The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]
The Permittee shall submit to the DAQ and the EPA (Air Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303 or through the EPA CEDRI) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all terms and conditions in the permit (including emissions limitations, standards, or work practices), except for conditions identified as being State-enforceable Only. 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;
4. the method(s) used for determining the compliance status of the source during the certification period;
5. each deviation and take it into account in the compliance certification; and
6. as possible exceptions to compliance, any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (CAM) occurred.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]
A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]
1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
   a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
   b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
   c. the applicable requirements under Title IV; or

d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.

3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]
The Director may terminate, modify, or revoke and reissue this permit if:
1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]
Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]
This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]
1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
   a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
   b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
   c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
   d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

   Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.
2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]
1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

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

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q .0508(i)(9)]
Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

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

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]
The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(3)]
The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(d)]
1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]
If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **National Emission Standards Asbestos – 40 CFR Part 61, Subpart M** [15A NCAC 02D .1110]
The Permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.

FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]
This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

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

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

II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]
In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of

the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 02Q .0508(i)(16)]
Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .1110, or .1111 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance for emission sources subject to Rules .0524, .1110, or .1111, the Permittee shall provide and submit all notifications, conduct all testing, and submit all test reports in accordance with the requirements of 15A NCAC 02D .0524, .1110, or .1111, as applicable. Otherwise, if emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
    a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
        i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
        ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
        iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in 15A NCAC 02D .2600 if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
    b. The Director may authorize the DAQ to conduct independent tests of any source subject to a rule in 15A NCAC 02D to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in 15A NCAC 02D .2600 has precedence over all other tests.

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

1. A permit shall be reopened and revised under the following circumstances:
    a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
    b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
    c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
    d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.

4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. **Reporting Requirements for Non-Operating Equipment** [15A NCAC 02Q .0508(i)(16)]
The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. **Fugitive Dust Control Requirement** [15A NCAC 02D .0540]
As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

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

NN. **Specific Permit Modifications** [15A NCAC 02Q .0501 and .0523]
1. For modifications made pursuant to 15A NCAC 02Q .0501(b)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (Air Permitting Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303 or through the EPA CEDRI) in writing at least seven days before the change is made.
    a. The written notification shall include:
        i. a description of the change at the facility;
        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.
    b. In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]
For permits modifications subject to 45-day review by the federal EPA, EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.