ROY COOPER
Governor
ELIZABETH S. BISER
Secretary
MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

DRAFT

Mr. Michael Lanning
General Manager III
Duke Energy Carolinas, LLC
3195 Pine Hall Road
Belews Creek, NC 27009

SUBJECT: Air Quality Permit No. 01983T39
Facility ID: 8500004
Duke Energy Carolinas, LLC - Belews Creek Steam Station
Walnut Cove
Stokes County
Fee Class: Title V
PSD Class: Major

Dear Mr. Lanning:

In accordance with your completed Air Quality Permit Application for a Significant 501(b)(2) Part II modification, we are forwarding herewith Air Quality Permit No. 01983T39 authorizing the construction and operation of the emission sources and associated air pollution control devices 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 the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215.108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-

215.114A and 143-215.114B.

Stokes County has triggered increment tracking under PSD for PM-10 and SO_2. Any increment changes associated with this modification were addressed in the Part I permit application (No. 8500004.21A).

This Air Quality Permit shall be effective from DRAFT until March 31, 2027, 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 Connie J. Horne at (919) 707-8722 or Connie.Horne@ncdenr.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

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:

William F. Lane, 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).

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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. 01983T38:*

Page No.	Section	Description of Changes
Cover Letter	---	Modified to reflect current permit number, issue and effective dates
All	Headers	Amended permit revision number
1-69	Entire permit, where applicable	Modified to reflect current permit number, issue and effective dates
8	Section 1	Removed footnote pertaining to the requirement to file a Title V Air Quality Permit Application on or before 12 months after commencing operation for ABCL and HAULRD. This application satisfies that requirement.
17	2.1 A.7.bb	Updated MATS rule language to current rule (version 9/11/2020)
20	2.1 A.8.c.ii	Revised to require subsequent annual performance tests to be "no more than 13 calendar months following the previous performance test", rather than 12 months.
20	2.1 A.8.c.ii	Revised testing condition allowing a different date for annual performance tests as approved by DAQ.
53	2.2 E.1.a	Removed "15A NCAC 02Q .0504: OPTION FOR OBTAINING CONSTRUCTION AND OPERATION PERMIT". This requirement was satisfied with the application (.22A) received September 8, 2022.
53	2.2 E.1.b	Reporting requirement removed – Notification of startup of Ash Basin Closure Landfill (ID No. ABCL) received on May 2, 2023

* 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.	Effective Date	Expiration Date
01983T39	01983T38	DRAFT	March 31, 2027

NOTE: Per General Condition K, a permit application for the renewal of this Title V permit shall be submitted no later than September 30, 2026.

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:	**Duke Energy Carolinas, LLC – Belews Creek Steam Station**
Facility ID:	**8500004**
Primary SIC Code:	**4911**
Primary NAICS:	**221112**
Facility Site Location:	**3195 Pine Hall Road**
City, County, State, Zip:	**Walnut Cove, Stokes County, NC 27052**
Mailing Address:	**3195 Pine Hall Road**
City, State, Zip:	**Belews Creek, NC 27009**
Application Number:	**8500004.22A**
Complete Application Date:	**September 8, 2022**
Division of Air Quality, Regional Office Address:	**Winston-Salem Regional Office** **450 West Hanes Mill Road, Suite 300** **Winston-Salem, NC 27105**

Permit issued this the XXth day of DRAFT, 2023.

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

Table of Contents

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
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-1 **MACT UUUUU**	One natural gas/coal[1]-fired electric utility boiler (12,000 million Btu per hour heat input) equipped with alkaline-based fuel additive[2] (U1 Boiler)	CD-1(U1FGTs) and CD-1A(U1FGTa)	Flue gas conditioning systems consisting of: An integral sulfur trioxide generator (450 pounds per hour of sulfur input) and An anhydrous ammonia injection system (121.5 pounds per hour maximum ammonia injection rate) [CD-1A (U1FGTa)]
		CD-3(U1ESP)	One cold-side electrostatic precipitator (974,600 square feet of plate area)
		CD-2(U1LNB/OFA)	One low NOx burner system employing over fire air
		CD-2A(U1SCR)[6]	Selective Catalytic Reduction (SCR)
		CD-U1DSI[3]	Hydrated lime dry sorbent injection
		CD (U1FGDa) and CD (U1FGDb)	Wet flue gas desulfurization system consisting of: Two spray tower absorbers in parallel (approximately 153 gal/min maximum (total a and b absorbers) limestone slurry injection rate)
ES-2 **MACT UUUUU**	One natural gas/coal[1]-fired electric utility boiler (12,000 million Btu per hour heat input) equipped with alkaline-based fuel additive[2] (U2 Boiler)	CD-4(U2FGTs) and CD-4A(U2FGTa)	Flue gas conditioning systems consisting of: An integral sulfur trioxide generator (450 pounds per hour of sulfur input) and An anhydrous ammonia injection system (121.5 pounds per hour maximum ammonia injection rate)
		CD-6(U2ESP)	One cold-side electrostatic precipitator (974,600 square feet of plate area)
		CD-5(U2LNB/OFA)	One low NOx burner system

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
			employing over fire air
		CD-5A(U2SCR)[6]	Selective Catalytic Reduction (SCR)
		CD-U2DSI[4]	Hydrated lime dry sorbent injection
		CD (U2FGDa) and CD (U2FGDb)	Wet Flue Gas Desulfurization system consisting of: Two spray tower absorbers in parallel (approximately 153 gal/min maximum (total a and b absorbers) limestone slurry injection rate)
ES-3(AuxB1) and ES-4(AuxB2) **MACT DDDDD**	Two natural gas-fired auxiliary boilers (172 million Btu per hour heat input, each)	N/A	N/A
ES-4a(EmGen) **MACT ZZZZ**[5]	One No. 2 fuel oil-fired emergency/ blackout protection diesel generator (2,000 kilowatts)	N/A	N/A
ES-6(RUL)	Limestone rail unloading station	CD (RULBf)	One pulse jet bagfilter (4:1 to 5:1 gas-to-cloth ratio)
ES-6a(RULa) and ES-6b(RULb) **NSPS OOO**	Two limestone rail unloading hoppers		
ES-7(LUBF) **NSPS OOO**	72 inches wide limestone rail unloading belt feeder (3,000 tons per hour maximum capacity)		
ES-8(LCB1) **NSPS OOO**	48 inches wide limestone unloading conveyor (2,500 tons per hour maximum capacity)	N/A	N/A
ES-10(LCB2)	48 inches wide limestone stack out conveyor (2,500 tons per hour maximum capacity)	N/A	N/A
F1	Limestone stockpile	N/A	N/A
ES-11a(LRGF) **NSPS OOO**	40 inches wide limestone reclaim grate feeder (400 tons per hour maximum capacity)	N/A	N/A
ES-11b(LCB3) **NSPS OOO**	30 inches wide limestone reclaim conveyor (400 tons per hour maximum capacity)	N/A	N/A
ES-13a(LCB3a) **NSPS OOO**	30 inches wide limestone plant feed conveyor (400 tons per hour maximum capacity)	CD (LPTTBf)	One pulse jet bagfilter (4:1 to 5:1 gas-to-cloth ratio)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-15(SCB4) **NSPS OOO**	30 inches wide limestone silo fill conveyor 1 (400 tons per hour maximum capacity)		
ES-16(SCB5) **NSPS OOO**	30 inches wide limestone silo fill conveyor 2 (400 tons per hour maximum capacity)		
ES-17(LS1) **NSPS OOO**	Limestone storage silo 1 (34,461 cubic feet capacity)		
ES-18(LS2) **NSPS OOO**	Limestone storage silo 2 (34,461 cubic feet capacity)		
ES-19(LCB6) **NSPS OOO**	30 inches wide limestone weigh feeder belt for silo 1 (400 tons per hour maximum capacity)	N/A	N/A
ES-20(LCB7) **NSPS OOO**	30 inches wide limestone weigh feeder belt for silo 2 (400 tons per hour maximum capacity)	N/A	N/A
ES-21(BM1) **NSPS OOO**	Limestone wet ball mill 1 (58 tons per hour maximum capacity)	N/A	N/A
ES-22(BM2) **NSPS OOO**	Limestone wet ball mill 2 (58 tons per hour maximum capacity)	N/A	N/A
ES-23(EQWP) **MACT ZZZZ**[5]	Emergency quench water pump (1,610 horsepower)	N/A	N/A
ES-33a(Silo,wwtf)	Lime storage silo (for wastewater treatment facility) (8,000 cubic feet capacity)	CD-wwtfBfa	Pulse jet bagfilter (4:1 to 5:1 gas-to-cloth ratio)
ES-33b(Silo,wwtf)	Lime storage silo (for wastewater treatment facility) (8,000 cubic feet capacity)	CD-wwtfBfb	Pulse jet bagfilter (4:1 to 5:1 gas-to-cloth ratio)
F3	Wastewater treatment facility (bioreactor)	N/A	N/A
ES-U1SorbSilo	Unit 1 hydrated lime storage silo	CD-U1SorbSiloBf	Hydrated lime U1 dry sorbent silo bin vent filter pulse jet bagfilter (4:1 air-to-cloth ratio)
ES-U2SorbSilo	Unit 2 hydrated lime storage silo	CD-U2SorbSiloBf	Hydrated lime U2 dry sorbent silo bin vent filter pulse jet bagfilter (4:1 air-to-cloth ratio)
ES-U1WHopper1	Unit 1 Weigh hopper 1	CD-U1WH1Bf	U1 weigh hopper 1 bin vent pulse jet bagfilter (2:1 air-to-cloth ratio)
ES-U1Whopper2	Unit 1 Weigh hopper 2	CD-U1WH2Bf	U1 weigh hopper 2 bin vent pulse jet bagfilter (2:1 air-to-cloth ratio)
ES-U1Whopper3	Unit 1 Weigh hopper 3	CD-U1WH3Bf	U1 weigh hopper 3 bin vent pulse jet bagfilter (2:1 air-to-cloth ratio)
ES-U2WHopper1	Unit 2 Weigh hopper 1	CD-U2WH1Bf	U2 weigh hopper 1 bin vent pulse

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
			jet bagfilter (2:1 air-to-cloth ratio)
ES-U2Whopper2	Unit 2 Weigh hopper 2	CD-U2WH2Bf	U2 weigh hopper 2 bin vent pulse jet bagfilter (2:1 air-to-cloth ratio)
ES-U2Whopper3	Unit 2 Weigh hopper 3	CD-U2WH3Bf	U2 weigh hopper 3 bin vent pulse jet bagfilter (2:1 air-to-cloth ratio)
ES-TS-1	Units 1 and 2 dry flyash transfer system	CD-BF-7	Bagfilter (1,700 dry standard cubic feet per minute)
SILO-3	Flyash storage and handling silo	BF-5	Bagfilter (5,612 square feet of filter area)
SILO-5	Flyash storage and handling silo	CD-BF-6	Silo 3 & 5 bagfilter (5,598 square feet of filter area)
SILO-4	Flyash storage and handling silo	BF-4	Bagfilter (2,144 square feet of filter area)
DFAL-4a	Dry flyash truck loading station		
DFAL-4b	Dry flyash truck loading station	CF-4b	Cartridge filter (2,140 square feet of filter area)
WFAL-3	Wet flyash truck loading station	FAC-3	Flyash conditioner injection (minimum 15 percent water injection by weight)
WFAL-5	Wet flyash truck loading station	FAC-5	Flyash conditioner injection (minimum 15 percent water injection by weight)
DOME-1	Flyash storage dome	DBF-1	Bagfilter (861 square feet of filter area)
ES-34a, ES-34b, ES-34c, and ES-34d **MACT DDDDD**	Four natural gas-fired, natural gas supply line heaters, rated at 8 million Btu per hour, each	N/A	N/A
ES-PIGGING	Natural gas supply line pigging operation including fugitive emissions from pig receiver vent and temporary flaring of natural gas from supply line	CD-PIG FLARE	Temporary flare system used to combust excess natural gas from supply line during pigging operation (5,100 million Btu per hour maximum rated natural gas heat input)
ABCL	Wind erosion, excavation, and relocation of ash at the Ash Basin and Closure Landfill.	N/A	N/A
HAULRD	Haul roads on Ash Basin for excavation and relocation of ash.	N/A	N/A

[1] Incidental spills of oil, antifreeze, and lube oil contained on the coal pile and coal storage from mobile equipment is allowed to be burned in these boilers. Boilers use natural gas as start-up fuel and for supplemental firing up to approximately 50 percent of the maximum continuous rating.

[2] Alkaline-based fuel additives may be used on an as-needed basis, not to exceed 7 pounds per ton of coal burned. Fuel additives shall not contain any toxic air pollutants listed in 15A NCAC 02Q .0711. Trona and any fuel additive products not equivalent to those specified in Application 8500004.13A are not allowed without permit modification.

[3] Unit 1 control device **ID No. CD-U1DSI** consists of: Unit 1 hydrated lime storage silo (**ID No. ES-U1SorbSilo**), Unit 1 Weigh hopper 1 (**ID No. ES-U1WHopper1**), Unit 1 Weigh hopper 2 (**ID No. ES-U1Whopper2**), and Unit 1 Weigh hopper 3 (**ID No. ES-U1Whopper3**).

[4] Unit 2 control device **ID No. CD-U2DSI** consists of, Unit 2 hydrated lime storage silo (**ID No. ES-U2SorbSilo**), Unit 2 Weigh hopper 1 (**ID No. ES-U2WHopper1**), Unit 2 Weigh hopper 2 (**ID No. ES-U2Whopper2**), and Unit 2 Weigh hopper 3 (**ID No. ES-U2Whopper3**).

[5] This source is subject to 40 CFR Part 63, Subpart ZZZZ. However, according to §63.6590(b)(3)(iii), these engines do not have to meet the requirements of this rule.

[6] The SCR NOx control system may be operated intermittently as necessary, based on boiler system requirements, to maintain compliance with applicable regulatory requirements.

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. Two natural gas/coal-fired electric utility boilers equipped with alkaline-based fuel additive (ID Nos. ES-1 and ES-2), and associated flue gas conditioning systems (ID Nos. CD-1, CD-1A, CD-4, and CD-4A), low NOx burner systems (ID Nos. CD-2 and CD-5), SCR (ID Nos. CD-2A and CD-5A), hydrated lime dry sorbent injection (ID Nos. CD-U1DSI and CD-U2DSI, electrostatic precipitators (ID Nos. CD-3 and CD-6), and wet Flue Gas Desulfurization systems (ID Nos. CD (U1FGDa), CD (U1FGDb), CD (U2FGDa) and CD (U2FGDb))

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

Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	1.02 pounds per million Btu heat input	15A NCAC 02D .0501(e)
	Phase II Acid Rain Permit Requirements **See Section 2.5**	15A NCAC 02Q .0402 (40 CFR Part 72)
	Cross State Air Pollution Rule Requirements **See Section 2.1 A.6**	40 CFR Part 97, Subpart CCCCC
Nitrogen Oxides	**When burning only coal** 1.8 pounds per million Btu heat input	15A NCAC 02D .0519
	When burning only gas 0.8 pounds per million Btu heat input	
	When burning coal and gas **See Section 2.1 A.2**	
	Phase II Acid Rain Permit Requirements **See Section 2.5**	15A NCAC 02Q .0402 (40 CFR Part 72)
	Cross State Air Pollution Rule Requirements **See Section 2.1 A.6**	40 CFR Part 97, Subparts AAAAA
Visible Emissions	**See Section 2.1 A.3**	15A NCAC 02D .0521
Particulate Matter	0.079 pound per million Btu heat input	15A NCAC 02D .0503
Excess Emissions	**See Section 2.1 A.4**	15A NCAC 02D .0606
Toxic Air Pollutants	**State-enforceable only** **See Section 2.1 A.5**	15A NCAC 02D .1100
Hazardous Air Pollutants	**See Section 2.1 A.7**	15A NCAC 02D .1111 (40 CFR 63 Subpart UUUUU)
Carbon Monoxide and VOCs	**See Section 2.1 A.8**	15A NCAC 02D .0530
Various	**See Section 2.1 A.9**	15A NCAC 02D .0530(u)
Nitrogen Oxides	**State-enforceable only** Ozone season annual reporting	15A NCAC 02D .1425

1. 15A NCAC 02D .0501(e): COMPLIANCE WITH EMISSION CONTROL STANDARDS

a. In addition to any control or manner of operation necessary to meet emission standards in 15A NCAC 02D .0500, 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 of 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 15A NCAC 02D .0500 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.

b. For the Flue Gas Desulfurization systems (**ID No. CD(U1FGDa) and CD(U1FGDb)**) and stack on Unit 1, emissions of sulfur dioxide from this source shall not exceed 1.02 pounds per million Btu heat input in accordance with the permit application received May 16, 2005 and modeling analysis of May 2005. For the Flue Gas Desulfurization systems (**ID No. CD(U2FGDa) and CD(U2FGDb)**) and stack on Unit 2, emissions of sulfur dioxide from this source shall not exceed 1.02 pounds per million Btu heat input in accordance with the permit application received May 16, 2005 and modeling analysis of May 2005. 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)]

c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.b, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(e).

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f) and 02D .0608]

d. The Permittee shall ensure compliance with 15A NCAC 02D .0501(e) by determining sulfur dioxide emissions in pounds per million Btu using continuous emissions monitoring (CEM) systems meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75). Compliance with sulfur dioxide emission standards shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75) shall be summed, and the sum shall be divided by 24. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any 24-hour block average exceeds the limits in Section 2.1 A.1.b, and/or if records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(e).

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

e. The Permittee shall submit the continuous emissions monitoring data showing the 24-hour daily block values in pounds per million Btu for each 24-hour daily block averaging period during the reporting period postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. All instances of deviations from the requirements of this permit must be clearly identified.

f. **CEMs Availability** - The Permittee shall submit sulfur dioxide CEM systems monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September.

2. 15A NCAC 02D .0519: CONTROL OF NITROGEN OXIDES EMISSIONS

3. Emissions of nitrogen oxides from these sources when burning coal and/or natural gas shall be calculated by the following equation:

E = [(Ec)(Qc) + (Eo)(Qo)]/Qt

Where: E=emission limit for combined burning of coal and gas in pounds per million Btu heat input
Ec=1.8 pounds per million Btu heat input for coal only
Eo=0.8 pounds per million Btu heat input for gas
Qc=coal heat input in Btu per hour
Qo=gas heat input in Btu per hour
Qt=Qc + Qo

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 .0519.

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

c. The Permittee shall ensure compliance with 15A NCAC 02D .0519 by determining nitrogen oxide emissions in pounds per million Btu using a continuous emissions monitoring (CEM) system meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75). Compliance with this emission standard shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75) shall be summed, and the sum shall be divided by 24. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any 24-hour block average exceeds the emission limit, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0519.

d. The Permittee shall maintain records of monthly coal and gas consumption (written or electronic form) and shall submit such records within 30 days of a request by DAQ. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0519 if these records are not maintained.

Reporting [15A NCAC 02Q .508(f)]

e. The Permittee shall submit the continuous emissions monitoring system data showing the 24-hour daily block values for periods of excess nitrogen oxide emissions postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. If no excess emissions were measured during a six-month period, the Permittee shall submit a summary report stating that there were no excess emissions for the period. All instances of deviations from the requirements of this permit must be clearly identified.

f. **CEMs Availability** – The Permittee shall submit the nitrogen oxide CEM systems monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, 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.

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

a. Visible emissions shall not be more than **40 percent opacity** when averaged over a six-minute period except that six-minute periods averaging not more than 90 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. [15A NCAC 02D .0521(c)]

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 to demonstrate compliance with 15A NCAC 02D .0521.

4. 15A NCAC 02D .0606: SOURCES COVERED BY APPENDIX P OF 40 CFR PART 51 (SULFUR DIOXIDE MONITORING, CONTINUOUS OPACITY MONITORING, AND EXCESS EMISSIONS)

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

a. The alternative monitoring and recordkeeping procedure in this section (Section 2.1 A.4.a) applies as allowed by Paragraph 3.9 of Appendix P of 40 CFR Part 51. The Permittee shall install, certify, operate, and maintain a PM CEMS to monitor and record PM emissions according to the applicable Maximum Achievable Control Technology (MACT) standards in 40 CFR 63.10010(i), as specified in Section 2.1 A.4.bb.

The quarterly excess emissions (EE) reports shall be used as an indication of good operation and maintenance of the electrostatic precipitators. These sources shall be deemed to be properly operated and maintained if the percentage of time the PM emissions, calculated on a one-hour average, greater than 0.030 pounds per million Btu heat input* does not exceed 3.0 percent of the total operating time for any given calendar quarter, adjusted for monitor downtime (MD) as calculated below, except that Total Excess Emission Time contains all one-hour periods greater than 0.030 pounds per million Btu heat input*. In addition, these sources shall be deemed to be properly operated and maintained if the %MD does not exceed 2 percent for any given calendar quarter as calculated below.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0606 if each source is not properly operated and maintained.

* The PM monitored value subject to the 0.030 pounds per million Btu limit shall have a 5% CO_2 diluent cap, or a 14% O_2 diluent cap, substituted in the emission rate calculation for a startup or shutdown hour in which the measured CO_2 concentration is below 5% or whenever the measured O_2 concentration is above 14%.

Calculations for %EE and %MD

Percent Excess Opacity Emission (%EE) Calculation:

$$\%EE = \frac{Total\ Excess\ Emission\ Time\ *}{Total\ Source\ Operating\ Time\ *** - Monitor\ Downtime} x100$$

Percent Monitor Downtime (%MD) Calculation:

$$\%MD = \frac{Total\ Monitor\ Downtime\ **}{Total\ Source\ Operating\ Time\ ***} x\ 100$$

* Total Excess Emission Time contains any one-hour period greater than 0.030 pounds per million Btu heat input of PM emissions, including startup, shutdown, and malfunction.

** Total Monitor Downtime includes Quality Assurance (QA) activities unless exempted by regulation or defined in an agency approved QA Manual. The amount of exempt QA Time will be reported in the quarterly report as such.

*** Total Source Operating Time is the number of hours in a calendar quarter that the emission source operates.

b. The Permittee shall use a continuous emissions monitoring system (CEMS) to monitor and record sulfur dioxide emissions. Continuous emissions monitoring and recordkeeping of sulfur dioxide emissions shall be performed as described in Paragraphs 2 and 3.1.1 through 3.1.5 of Appendix P of 40 CFR Part 51. The monitoring systems shall meet the minimum specifications described in Paragraphs 3.3 through 3.8 of Appendix P of 40 CFR Part 51. If the emission unit is also subject to 40 CFR Part 75, then facility may follow the Quality Assurance and Quality Control (QA/QC) procedures in Appendix B to Part 75 in lieu of the 40 CFR Part 51 QA/QC procedures.

The quarterly excess emissions (EE) reports required under Appendix P of 40 CFR Part 51 shall be used as an indication of good operation and maintenance of the flue gas desulfurization scrubbers. These sources shall be deemed to be properly operated and maintained if sulfur dioxide emissions do not exceed 1.02 pounds per million Btu calculated on a 24-hour basis. Compliance with the sulfur dioxide emission standard is determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values are summed, and the sum is divided by 24. A minimum of four data points, equally spaced, is required to determine a valid hour value unless the continuous emission monitoring system is installed to meet the provisions of 40 CFR Part 75. If a continuous emission monitoring system is installed to meet the provisions of 40 CFR Part 75, the minimum number of data points is determined by 40 CFR Part 75. In addition, the flue gas desulfurization scrubbers shall be deemed to be properly operated and maintained if the %MD does not exceed 2 percent for any given calendar quarter as calculated in Section 2.1 A.4.a above.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0606 if each source is not properly operated and maintained.

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

c. The Permittee shall submit the excess emissions and monitor downtime reports as required under Appendix P of 40 CFR Part 51 postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September as shown below. Reporting shall be in accordance with Paragraphs 4 and 5.1 of Appendix P of 40 CFR Part 51.
   i. Excess PM emissions are defined as any one-hour average greater than 0.030 pounds per million Btu heat input. The quarterly report shall include the number of hours each day and the percent of operating hours during the quarter with average PM emissions recorded by the PM CEMS greater than 0.030 pounds per million Btu including the application of any applicable diluent caps during a startup or shutdown hour.
   ii. For sulfur dioxide, excess emissions are defined as greater than 1.02 pounds per million Btu calculated on a 24-hour block average basis.
   iii. All instances of deviations from the requirements of this permit must be clearly identified.

State-enforceable only

5. 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 limit shall not be exceeded:

Emission Sources	Toxic Air Pollutants	Emission Limits
Electric utility boilers **(ID Nos. ES-1 and ES-2)**	Ammonia	121.5 pounds per hour each unit for a total of 243 pounds per hour

b. To ensure compliance with the above limits, the maximum anhydrous ammonia flue gas injection rate shall not exceed 121.5 pounds per hour, each, for Unit No. 1 and Unit No. 2.

Monitoring/Recordkeeping/Reporting [15A NCAC 02D .1106]

c. No monitoring/recordkeeping/reporting for ammonia emissions from the boilers is required to show compliance with 15A NCAC 02D .1100.

6. Cross State Air Pollution Rule Requirements

For the two boilers **(ID Nos. ES-1 and ES-2)**, the Permittee shall comply with all applicable requirements of 40 CFR Part 97, Subpart AAAAA "TR NOx Annual Trading Program" and Subpart CCCCC "TR SO_2 Group 1 Trading Program".

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

a. The Permittee shall comply with all applicable provisions, including the requirements for emission limitations, work practice standards, operating limits, testing and initial compliance, continuous compliance, monitoring, recordkeeping, notification, and reporting, contained in Environmental Management Commission Standard 15A NCAC 02D .1111 Maximum Achievable Control Technology (MACT) as promulgated in the most current version of 40 CFR Part 63 Subpart UUUUU, "National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units" and Subpart A General Provisions.

Emission Limitations and Work Practice Standards [15A NCAC 02Q .0508(b)]

b. The Permittee shall:
i.limit the emissions of filterable particulate matter (PM) to 3.0E-2 lb/MMBtu or 3.0E-1 lb/MWh; or
limit the emissions of total non-Hg HAP metals to 5.0E-5 lb/MMBtu or 5.0E-1 lb/GWh; or
limit the emissions of individual HAP metals to:

Constituent	Allowable Level
Antimony (Sb)	8.0E-1 lb/TBtu or 8.0E-3 lb/GWh
Arsenic (As)	1.1E0 lb/TBtu or 2.0E-2 lb/GWh
Beryllium (Be)	2.0E-1 lb/TBtu or 2.0E-3 lb/GWh
Cadmium (Cd)	3.0E-1 lb/TBtu or 3.0E-3 lb/GWh
Chromium (Cr)	2.8E0 lb/TBtu or 3.0E-2 lb/GWh
Cobalt (Co)	8.0E-1 lb/TBtu or 8.0E-3 lb/GWh
Lead (Pb)	1.2E0 lb/TBtu or 2.0E-2 lb/GWh
Manganese (Mn)	4.0E0 lb/TBtu or 5.0E-2 lb/GWh
Nickel (Ni)	3.5E0 lb/TBtu or 4.0E-2 lb/GWh
Selenium (Se)	5.0E0 lb/TBtu or 6.0E-2 lb/GWh

ii. limit the emissions of hydrogen chloride (HCl) to 2.0E-3 lb/MMBtu or 2.0E-2 lb/MWh; or
limit the emissions of sulfur dioxide (SO_2) to 2.0E-1 lb/MMBtu or 1.5E0 lb/MWh.
iii. limit the emissions of mercury (Hg) to 1.2E+0 lb/TBtu or 1.3E-2 lb/GWh.
[40 CFR 63.9991(a)(1) and Table 2 to Subpart UUUUU]

c. During periods of startup of an EGU:
i. The Permittee has chosen to comply using the following work practice standards, by choosing to comply using paragraph (1) of the definition of "startup" in 40 CFR 63.10042, defined as follows.

> *Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on site use). Any fraction of an hour in which startup occurs constitutes a full hour of startup.*

The Permittee shall operate all continuous monitoring systems (CMS) during startup. For startup of a unit, clean fuels must be used as defined in 40 CFR 63.10042 for ignition. Once the unit converts to firing coal, the Permittee shall engage all of the applicable control technologies except the SCR. The Permittee shall start the SCR system appropriately to comply with relevant standards applicable during normal operation. The Permittee shall comply with all applicable emissions limits at all times except for periods that meet the applicable definitions of startup and shutdown in Subpart UUUUU. The Permittee shall keep records during startup periods. The Permittee shall provide reports concerning activities and startup periods, as specified in 40 CFR 63.10011(g) and 40 CFR 63.10021(h) and (i).

ii. If the Permittee chooses to use just one set of sorbent traps to demonstrate compliance with the applicable Hg emission limit, the Permittee shall comply with the limit at all times; otherwise, the Permittee shall comply with the applicable emission limit at all times except for startup and shutdown periods.

iii. The Permittee shall collect monitoring data during startup periods, as specified in 40 CFR 63.10020(a) and (e). The Permittee shall keep records during startup periods, as provided in 40 CFR 63.10032 and 40 CFR 63.10021(h). The Permittee shall provide reports concerning activities and startup periods, as specified in 40 CFR 63.10011(g), 40 CFR 63.10021(i), and 40 CFR 63.10031.

[40 CFR 63.9991(a)(1) and Table 3 to Subpart UUUUU]

d. During periods of shutdown of an EGU:

Shutdown means the period in which cessation of operation of an EGU is initiated for any purpose. Shutdown begins when the EGU no longer generates electricity or makes useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes or when no coal, liquid oil, syngas, or solid oil-derived fuel is being fired in the EGU, whichever is earlier. Shutdown ends when the EGU no longer generates electricity or makes useful thermal energy (such as steam or heat) for industrial, commercial, heating, or cooling purposes, and no fuel is being fired in the EGU. Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown.

i. The Permittee shall operate all CMS during shutdown. The Permittee shall also collect appropriate data and shall calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used. While firing coal during shutdown, the Permittee shall vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal being fed into the EGU and for as long as possible thereafter considering operational and safety concerns. In any case, the permittee shall operate the controls when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than Subpart UUUUU and that require operation of the control devices.

ii. If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel shall be one or a combination of the clean fuels defined in 40 CFR 63.10042 and shall be used to the maximum extent possible taking into account considerations such as not compromising boiler or control device integrity.

iii. The Permittee shall comply with all applicable emission limits at all times except during startup periods and shutdown periods at which time the Permittee shall meet the work practice standards. The Permittee shall collect monitoring data during shutdown periods, as specified in 40 CFR 63.10020(a). The Permittee shall keep records during shutdown periods, as provided in 40 CFR 63.10032 and 40 CFR 63.10021(h). The Permittee shall provide reports concerning activities and shutdown periods, as specified in 40 CFR 63.10011(g), 40 CFR 63.10021(i), and 40 CFR 63.10031.

[40 CFR 63.9991(a)(1), 40 CFR 63.10042, and Table 3 to Subpart UUUUU]

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

e. The Permittee shall comply with the General Provisions as applicable pursuant to Table 9 to Subpart UUUUU. [40 CFR 63.10040]

f. The Permittee shall be in compliance with the emission limits and operating limits in Subpart UUUUU. These limits shall apply at all times except during periods of startup and shutdown; however, for coal-fired EGUs, the Permittee shall be required to meet the work practice requirements in Table 3 to Subpart UUUUU during periods of startup or shutdown. [40 CFR 63.10000(a)]

g. At all times, the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the EPA Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.10000(b)]

h. For coal-fired units, initial performance testing is required for all pollutants for the affected EGUs to demonstrate compliance with the applicable emission limits. [40 CFR 63.10000(c)(1)]

i. The Permittee shall demonstrate compliance with the filterable particulate matter (PM) emission limit through an initial performance test and shall monitor continuous performance through use of a PM continuous emissions monitoring system (PM CEMS). [40 CFR 63.10000(c)(1)(iv)]
j. The Permittee may demonstrate initial and continuous compliance by installing and operating a sulfur dioxide (SO_2) CEMS installed and operated in accordance with 40 CFR Part 75 to demonstrate compliance with the applicable SO_2 emissions limit. [40 CFR 63.10000(c)(1)(v)]
k. The Permittee shall demonstrate initial and continuous compliance through use of a Hg CEMS or a sorbent trap monitoring system in accordance with Appendix A to the Subpart. [40 CFR 63.10000(c)(1)(vi)]
l. As part of the demonstration of continuous compliance, the Permittee shall perform periodic tune-ups of the affected EGUs, according to 40 CFR 63.10021(e). [40 CFR 63.10000(e)]
m. The Permittee shall install, certify, operate, maintain, and quality-assure each monitoring system necessary for demonstrating compliance with the work practice standards for PM during startup periods and shutdown periods. The Permittee shall collect, record, report, and maintain data obtained from these monitoring systems during startup periods and shutdown periods. [40 CFR 63.10000(l)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the general compliance requirements in Sections 2.1 A.7.e through 2.1 A.7.m above are not met.

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

n. The Permittee shall monitor and collect data according to 40 CFR 63.10020. [40 CFR 63.10020(a)]
o. The Permittee shall operate the monitoring system and collect data at all required intervals at all times that the affected EGU is operating, except for periods of monitoring system malfunctions or out-of-control periods (see 40 CFR 63.8(c)(7)) and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. The Permittee is required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. [40 CFR 63.10020(b)]
p. Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments, failure to collect required data is a deviation from the monitoring requirements. [40 CFR 63.10020(d)]
q The Permittee shall demonstrate continuous compliance with each emissions limit, operating limit, and work practice standard in Tables 2 and 3 to Subpart UUUUU that applies to the affected EGU, according to the monitoring specified in Table 7 to Subpart UUUUU and paragraphs (b) through (g) of 40 CFR 63.10021(a). [40 CFR 63.10021(a)]
r. Except as otherwise provided in 40 CFR 63.10020(c), if the Permittee uses a CEMS to measure SO_2, PM, HCl, HF, or Hg emissions, or uses a sorbent trap monitoring system to measure Hg emissions, the Permittee shall demonstrate continuous compliance by using all quality-assured hourly data recorded by the CEMS (or sorbent trap monitoring system) and the other required monitoring systems (e.g., flow rate, CO_2, O_2, or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on a continuous 30-boiler operating day (or, if alternate emissions averaging is used for Hg, 90-boiler operating day) rolling average basis, updated at the end of each new boiler operating day. The Permittee shall use Equation 8 to Subpart UUUUU to determine the 30- (or, if applicable, 90-) boiler operating day rolling average.

$$\text{Boiler operating day average} = \frac{\sum_{=1}^{n} Her_i}{n} \quad (\text{Eq. } 8)$$

Where:
Her_i is the hourly emissions rate for hour *i* and *n* is the number of hourly emissions rate values collected over 30- (or, if applicable, 90-) boiler operating days.
[40 CFR 63.10021(b)]

s. The Permittee shall conduct periodic performance tune-ups of the EGUs, as specified in paragraphs (e)(1) through (9) of 40 CFR 63.10021. For the first tune-up, the Permittee may perform the burner inspection any time prior to the tune-up or delay the first burner inspection until the next scheduled EGU outage provided the requirements of 40 CFR 63.10005 are met. Subsequently, the Permittee shall perform an inspection of the burner at least once every 36 calendar months unless the EGU employs neural network combustion optimization during normal operations in which case an inspection of the burner and combustion controls shall be performed at least once every 48 calendar months. If the EGU is offline when a deadline to perform the tune-up passes, the tune-up work practice

requirements shall be performed within 30 days after the re-start of the affected unit. [40 CFR 63.10021(e)]

t. The Permittee shall follow the startup or shutdown requirements as given in Table 3 to the Subpart for each coal-fired EGU and comply with all applicable requirements in 40 CFR 63.10011(g). [40 CFR 63.10005(j), 40 CFR 63.10011(g) and 40 CFR 63.10021(h)]
u. The Permittee shall determine the fuel whose combustion produces the least uncontrolled emissions, taking safety considerations into account, *i.e.*, the cleanest fuel, either natural gas or distillate oil, that is available on site or accessible nearby for use during periods of startup or shutdown. The cleanest fuel, either natural gas or distillate oil, for use during periods of startup or shutdown determination may take safety considerations into account. [40 CFR 63.10011(f)(1) and (2)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the continuous compliance requirements in Sections 2.1 A.7.n through 2.1 A.7.u above are not met.

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

v. For an affected unit that exhausts to the atmosphere through a single, dedicated stack, the Permittee shall either install the required CEMS and sorbent trap monitoring systems in the stack or at a location in the ductwork downstream of all emissions control devices, where the pollutant and diluents concentrations are representative of the emissions that exit to the atmosphere. [40 CFR 63.10010(a)(1)]
w. If the Permittee uses an oxygen (O_2) or carbon dioxide (CO_2) CEMS to convert measured pollutant concentrations to the units of the applicable emissions limit, the O_2 or CO_2 concentrations shall be monitored at a location that represents emissions to the atmosphere, *i.e.*, at the outlet of the EGU, downstream of all emission control devices. The Permittee shall install, certify, maintain, and operate the CEMS according to 40 CFR Part 75. Use only quality-assured O_2 or CO_2 data in the emissions calculations; do not use Part 75 substitute data values. [40 CFR 63.10010(b)]
x. If the Permittee is required to use a stack gas flow rate monitor, either for routine operation of a sorbent trap monitoring system or to convert pollutant concentrations to units of an electrical output-based emission standard in Table 2 to Subpart UUUUU, the Permittee shall install, certify, operate, and maintain the monitoring system and conduct on-going quality-assurance testing of the system according to 40 CFR Part 75. Use only unadjusted, quality-assured flow rate data in the emissions calculations. Do not apply bias adjustment factors to the flow rate data and do not use substitute flow rate data in the calculations. [40 CFR 63.10010(c)]
y. If the Permittee is required to make corrections for stack gas moisture content when converting pollutant concentrations to the units of an emission standard in Table 2 to Subpart UUUUU, the Permittee shall install, certify, operate, and maintain a moisture monitoring system in accordance with 40 CFR Part 75. Alternatively, for coal-fired units, the Permittee may use appropriate fuel-specific default moisture values from 40 CFR 75.11(b) to estimate the moisture content of the stack gas. If the Permittee installs and operates a moisture monitoring system, the Permittee shall not use substitute moisture data in the emissions calculations. [40 CFR 63.10010(d)]
z. The Permittee shall use an SO_2 CEMS and must install the monitor at the outlet of the EGU, downstream of all emission control devices, and must certify, operate, and maintain the CEMS according to 40 CFR Part 75 as specified in paragraphs (f)(1) through (4) of 40 CFR 63.10010. [40 CFR 63.10010(f)]
aa. The Permittee shall use a Hg CEMS or a sorbent trap monitoring system, the Permittee shall install, certify, operate, maintain and quality-assure the data from the monitoring system in accordance with Appendix A to Subpart UUUUU and as specified in 40 CFR 63.10010(g). [40 CFR 63.10010(g)]
bb. The Permittee shall install, certify, operate, and maintain a PM CEMS and record the output of the PM CEMS as specified in paragraphs (i)(1) through (4) of 40 CFR 63.10010 (shown below). Compliance with the applicable PM emissions limit in Table 2 to Subpart UUUUU is determined on a 30-boiler operating day rolling average basis. [40 CFR 63.10010(i)]
    i. Install and certify the PM CEMS according to section 4 of appendix C to Subpart UUUUU.
    ii Operate, maintain, and quality-assure the data from the PM CEMS according to section 5 of appendix C to Subpart UUUUU.
    iii Reduce the data from the PM CEMS to hourly averages in accordance with section 6.1 of appendix C to Subpart UUUUU.
    iv. Collect data using the PM CEMS at all times the process unit is operating and at the intervals specified in 40 CFR 63.10010(a), except for required monitoring system quality assurance or quality control activities and any scheduled maintenance as defined in the site-specific monitoring plan.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the monitoring requirements in Sections 2.1 A.7.v through 2.11 A.7.bb above are not met.

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

cc. The Permittee shall keep records of the following:
  i. Records required under appendix A and/or appendix B to Subpart UUUUU for continuous monitoring of Hg emissions.
  ii. Each notification and report that is submitted to comply with Subpart UUUUU, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).
  iii. Records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in 40 CFR 63.10(b)(2)(viii). [40 CFR 63.10032(a)]

dd. For each CEMS, the Permittee shall keep records as follows:
  i. Records described in 40 CFR 63.10(b)(2)(vi) through (xi).
  ii. Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).
  iii. Request for alternatives to relative accuracy test for CEMS as required in 40 CFR 63.8(f)(6)(i).
  iv. Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period. [40 CFR 63.10032(b)]

ee. For each EGU subject to an emission limit, the Permittee shall keep records of monthly fuel use by each EGU, including the type(s) of fuel and amount(s) used. [40 CFR 63.10032(d)(1)]

ff. If the Permittee chooses to rely on paragraph (1) of the definition of "startup" in 40 CFR 63.10042 for any EGU, records must be kept of the occurrence and duration of each startup or shutdown. [40 CFR 63.10032(f)(1)]

gg. The Permittee shall keep records of the occurrence and duration of each malfunction of an operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.10032(g)]

hh. The Permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.10032(h)]

ii. The Permittee shall keep records of the type(s) and amount(s) of fuel used during each startup or shutdown. [40 CFR 63.10032(i)]

jj. The Permittee shall keep records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1). The Permittee shall keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee shall keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records off site for the remaining 3 years. [40 CFR 63.10033(a) through (c)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the recordkeeping requirements in Sections 2.1 A.7.cc through 2.1 A.7.jj above are not met.

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

kk. The Permittee shall submit the reports required under 40 CFR 63.10031 and, if applicable, the reports required under appendices A and B to Subpart UUUUU. The electronic reports required by appendices A and B shall be sent to the Administrator electronically in a format prescribed by the Administrator, as provided in 40 CFR 63.10031. CEMS data (except for PM CEMS and any approved alternative monitoring using a HAP metals CEMS) shall be submitted using EPA's Emissions Collection and Monitoring Plan System (ECMPS) Client Tool. Other data, including PM CEMS data, HAP metals CEMS data, and CEMS performance test detail reports, shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool, the Compliance and Emissions Data Reporting Interface, or alternate electronic file format, all as provided for under 40 CFR 63.10031. [40 CFR 63.10021(f)]

ll. The Permittee shall report each instance in which the Permittee did not meet an applicable emissions limit or operating limit in Tables 1 through 4 to 40 CFR 63 Subpart UUUUU or failed to conduct a required tune-up. These instances are deemed violations from the requirements of 40 CFR 63 Subpart UUUUU and shall be reported according to 40 CFR 63.10031. [40 CFR 63.10021(g)]

mm. The Permittee shall submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h), as applicable, by the dates specified, or according to an agreed upon schedule by NCDAQ [40 CFR 63.9(i)(2)]. [40 CFR 63.10030(a)]

nn. When the Permittee is required to conduct a performance test, the Permittee shall submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin. [40 CFR 63.10030(d)]

oo. The Permittee shall submit each report in Table 8 to 40 CFR 63 Subpart UUUUU, as applicable. If the Permittee is

required to (or elect to) continuously monitor Hg and/or HCl and/or HF emissions, the Permittee shall also submit the electronic reports required under appendix A and/or appendix B to the Subpart, at the specified frequency. [40 CFR 63.10031(a)]

pp. The Permittee shall submit each report in Table 8 to 40 CFR 63 Subpart UUUUU, as applicable 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. [40 CFR 63.10031(b)]

qq. The compliance report shall contain the following:
   i. The information required by the summary report located in 40 CFR 63.10(e)(3)(vi).
   ii. The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by EPA or the basis for concluding that the fuel is not a waste, and the total fuel usage amount with units of measure.
   iii. The report shall indicate whether the Permittee burned new types of fuel during the reporting period. If the Permittee did burn new types of fuel the Permittee must include the date of the performance test where that fuel was in use.
   iv. The report shall include the date of the most recent tune-up for each EGU. The date of the tune-up is the date the tune-up provisions specified in 40 CFR 63.10021(e)(6) and (7) were completed.
   v. A certification.
   vi. If there is a deviation from any emission limit, work practice standard, or operating limit, the Permittee shall submit a brief description of the deviation, the duration of the deviation, emissions point identification, and the cause of the deviation.
   vii. For each excess emissions occurring at an affected source where the Permittee is using a CMS to comply with that emission limit or operating limit, the Permittee shall include the information required in 40 CFR 63.10(e)(3)(v) in the compliance report specified in 40 CFR 63.10031(c). [40 CFR 63.10031(c) and 40 CFR 63.10031(d)]

rr. Each affected source that has obtained a Title V operating permit pursuant to 40 CFR Part 70 or Part 71 shall report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 8 of Subpart UUUUU along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [40 CFR 63.10031(e)]

ss. On or after July 1, 2018, within 60 days after the date of completing each performance test, the Permittee shall submit the performance test reports required by the Subpart to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). The Permittee shall comply with all applicable requirements in 40 CFR 63.10031(f). [40 CFR 63.10031(f)]

tt. If the Permittee had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. [40 CFR 63.10031(g)]

8. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. The Permittee shall comply with all applicable provisions, including emission limits, notification, testing, reporting, recordkeeping, and monitoring requirements, in accordance with 15A NCAC 02D .0530, “Prevention of Significant Deterioration of Air Quality”.

b. The following Best Available Control Technology (BACT) limits shall not be exceeded:

POLLUTANT	BACT EMISSION LIMIT	CONTROL TECHNOLOGY
Carbon Monoxide	0.08 lb/million Btu (6-hour average), all operations except startups and shutdowns	Good combustion practices
	Work practice standards during startups and shutdowns **See Section 2.1 A.8.b.i. through 2.1 A.8.b.iii**	Work practice standards
Volatile Organic Compounds	0.0055 lb/million Btu (6-hour average), all operations except startups and shutdowns	Good combustion practices
	Work practice standards during start-ups and shut-downs **See Section 2.1 A.8.b.i. through 2.1 A.8.b.iii**	Work Practice Standards

i. For startup of a unit, the Permittee shall use clean fuels as defined in Section 2.1 A.8.b.iii below for ignition. When firing coal, the Permittee shall utilize all of the applicable control technologies except dry scrubber and SCR. The Permittee shall start dry scrubber and SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation.
ii. While firing coal during shutdown, the Permittee shall vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal being fed into the EGU and for as long as possible thereafter considering operational and safety concerns. If, in addition to the fuel used prior to initiation of shutdown, another fuel shall be used to support the shutdown process, that additional fuel shall be one or a combination of the clean fuels defined in Section 2.1 A.8.b.iii below and shall be used to the maximum extent possible, taking into account considerations such as not compromising boiler or control device integrity.
iii. Clean fuel means natural gas, synthetic natural gas that meets the specification necessary for that gas to be transported on a Federal Energy Regulatory Commission (FERC) regulated pipeline, propane, distillate oil, synthesis gas that has been processed through a gas clean-up train such that it could be used in a system's combustion turbine, or ultra-low-sulfur diesel (ULSD) oil, including those fuels meeting the requirements of 40 CFR Part 80, subpart I ("Subpart I-Motor Vehicle Diesel Fuel; Nonroad, Locomotive, and Marine Diesel Fuel; and ECA Marine Fuel").

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

c. Under the provisions of North Carolina General Statute 143-215.108, the Permittee shall demonstrate compliance with the BACT emission limits for Units 1 and 2 (**ID Nos. ES-1 and ES-2**) when burning (i) natural gas only and (ii) natural gas and coal co-firing, by conducting annual performance tests at greater than 90% of maximum rated heat input, utilizing EPA reference methods, as in effect on the date of permit issuance, contained in 40 CFR 60, Appendix A, AND in accordance with a testing protocol (using testing protocol submittal form) approved by the Division of Air Quality, as follows:

POLLUTANT	TEST METHOD
Carbon Monoxide	Method 10
Volatile Organic Compounds	Method 25A or Method 18

Use of any other test method for compliance purposes shall be approved in advance by the Division of Air Quality and must be based on a test protocol that documents the alternate method is at least as accurate as the reference method test listed above.

i. Test results shall be the average of 3 valid test runs.
ii. Within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after the commencement of natural gas burning in Units 1 and 2 (**ID Nos. ES-1 and ES-2**), the Permittee shall conduct the initial performance test(s) and submit a written report of the test(s) to the Regional Supervisor, Division of Air Quality. The Permittee shall conduct the subsequent annual performance tests (no more than 13 calendar months following the previous performance test), unless a different date is approved by DAQ, and submit the written reports to the Regional Supervisor, Division of Air Quality, within 60 days of completion of such annual performance tests.

iii. This permit may be revoked, with proper notice to the Permittee, or enforcement procedures initiated, if the results of the test(s) indicate that the facility does not meet applicable limitations.

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

d. The Permittee shall perform periodic tune-ups on Units 1 and 2 (**ID Nos. ES-1 and ES-2**) in accordance with the MACT Subpart UUUUU requirements in Section 2.1 A.7.s and comply with the associated Subpart UUUUU recordkeeping and reporting.

9. 15A NCAC 02D .0530(u): USE OF PROJECTED ACTUAL EMISSIONS TO AVOID APPLICABILITY OF PREVENTION OF SIGNIFICANT DETERIORATION REQUIREMENTS

Monitoring/Recordkeeping/Reporting [15A NCAC 02D .0530(u)]

a. The Permittee has used projected actual emissions to avoid applicability of prevention of significant deterioration requirements, pursuant to Application 8500004.18A, for the natural gas co-firing project. The Permittee shall perform the following:
   i. The Permittee shall maintain records of annual emissions in tons per year, on a calendar year basis related to the natural gas co-firing project, for five years following resumption of regular operations after the change is made.
   ii. The Permittee shall submit a report to the director within 60 days after the end of each calendar year during which these records must be generated. The report shall contain the items listed in 40 CFR 51.166(r)(6)(v)(a) through (c).
   iii. The Permittee shall make the information documented and maintained under this condition available to the Director or the general public pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).
   iv. The reported actual emissions (post-construction emissions) for each of the five calendar years will be compared to the projected actual emissions (pre-construction projection) as included below:

Regulated NSR Pollutant	Projected Actual Emissions* (tons per year)	
	Unit 1 (ID No. ES-1)	Unit 2 (ID No. ES-2)
Nitrogen Oxides (as NO_2)	3,435	3,104
Particulate Matter (filterable)	205.7	154.1
PM_{10}	516.58	411.68
$PM_{2.5}$	447.27	362.35
Sulfur Dioxide	3,838.75	2,991.86
Hydrogen Fluoride	15.7	12.9
Lead	0.0213	0.0299
Sulfuric Acid Mist	130	45.6
GHG as CO_{2e}	5,794,839	5,065,913

*These projections are not enforceable limitations. If projected emissions are exceeded, consistent with 15A NCAC 02D .0530, the Permittee shall include in its annual report an explanation as to why the actual rates exceeded the projection.

10. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

a. Emissions of particulate matter discharged from these sources **(ID Nos. ES-1 and ES-2)** into the atmosphere shall not exceed 0.079 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.10.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

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

c. The monitoring and recordkeeping requirements in Sections 2.1 A.7.bb and dd shall satisfy the requirements of this section. A measured exceedance of 0.030 pounds per million Btu heat input (30-boiler operating day rolling average) or 0.30 pounds per megawatt hour (30-boiler operating day rolling average) shall be a violation of the corresponding emission standards in Section 2.1 A.10.a above.

If the Permittee does not comply with the monitoring and recordkeeping requirements in Section 2.1 A.7.bb and dd or if the results of the arithmetic 30-boiler operating day rolling average PM CEMS concentration exceeds 0.030 pounds per million Btu heat input (30-boiler operating day rolling average) or 0.30 pounds per megawatt hour (30-boiler operating day rolling average), the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

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

d. The Permittee shall submit excess emissions and monitoring system performance reports postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. The compliance report shall include, at a minimum, the information required in 40 CFR 63.10 and contain the information specified in Section 2.1 A.7.qq, along with all 30-boiler operating day rolling average excess emissions (pounds per million Btu or pounds per megawatt hour) using the CEMS outlet data, including periods exempted during periods of startup and shutdown. The PM CEMS data submitted for compliance with 40 CFR Part 63 Subpart UUUUU can be used to satisfy the requirement of this section.
e. All instances of excess emissions must be clearly identified.

State-enforceable only

11. 15A NCAC 02D .1425: NOX SIP CALL BUDGET

The Permittee shall submit a report to the DAQ no later than January 30 of the calendar year after the NOx SIP Call control period (i.e., May 1 through September 30) listing the NOx emissions from these sources (**ID Nos. ES-1 and ES-2)** during the NOx SIP Call control period. The NOx emissions in this report shall be determined in accordance with 40 CFR Part 75 Subpart H.

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B. Two natural gas-fired auxiliary boilers (ID Nos. ES-3(AuxB1) and ES-4(AuxB2))

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	0.079 pound 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
Hazardous Air Pollutants	**See Section 2.1 B.4**	15A NCAC 02D .1111 (40 CFR Part 63, Subpart DDDDD)
Carbon Monoxide and VOCs	**See Section 2.1 B.5**	15A NCAC 02D .0530
Various	**See Section 2.1 B.6**	15A NCAC 02D .0530(u)

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

a. Emissions of particulate matter from the combustion of natural gas that are discharged from these sources **(ID Nos. ES-3(AuxB1) and ES-4(AuxB2))** into the atmosphere shall not exceed 0.079 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 B.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 emissions of particulate matter from the firing of natural gas in these sources **(ID Nos. ES-3(AuxB1) and ES-4(AuxB2))** to demonstrate compliance with 15A NCAC 02D .0503.

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

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

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

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

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources.

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

a. Visible emissions from these sources shall not be more than 40 percent opacity (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 90 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.

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.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 in these sources.

4. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.7485, 40 CFR 63.7490(d), and 40 CFR 63.7499(l)]

a. For existing sources without a continuous oxygen trim system and with a heat input capacity 10 million Btu per hour or greater in the *Unit designed to burn gas 1 subcategory*, the Permittee shall, the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart DDDDD "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" [Subpart DDDDD] and Subpart A "General Provisions". The Permittee shall be subject to the requirements of this standard starting May 20, 2019. Note that the requirements of this standard may require action on behalf of the Permittee prior to May 20, 2019.

Definitions and Nomenclature [§63.7575]

b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.7575 shall apply.

40 CFR Part 63 Subpart A General Provisions [40 CFR 63.7565]

c. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A General Provisions according to the applicability of Subpart A to such sources as identified in Table 10 to Subpart DDDDD.

Compliance Date [40 CFR 63.7510(e) and 40 CFR 63.56(b)]

d. The Permittee shall complete the initial tune up (see Sections 2.1 B.5.h through 2.1 B.5.j) no later than May 20, 2019.

General Compliance Requirements [40 CFR 63.7505(a), 40 CFR 63.7500(a)(3)]

e. At all times the affected unit(s) is operating, the Permittee shall be in compliance with the emission standards in Section 2.1 B.5.f, except during periods of startup and shutdown. [40 CFR 63.7500(a)(3)]

f. At all times, the Permittee shall operate and maintain any affected source (as defined in 40 CFR 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

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

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

Work Practice Standards [15A NCAC 02Q .0508(f)]

h. The Permittee shall conduct an annual tune-up of the sources as specified below. The Permittee shall conduct the tune-up while burning the type of fuel (or fuels in case of units that routinely burn a mixture) that provided the majority of the heat input to the boiler or process heater over the 12 months prior to the tune-up.
   i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled or unscheduled unit shutdown, but each burner must be inspected at least once every 72 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 inspection until the next scheduled unit shutdown);
   iv. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject; and
   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.

   [40 CFR 63.7540(a)(10)]

i. Each annual tune-up shall be conducted no more than 13 months after the previous tune-up. [40 CFR 63.7515(d)]
j. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR 63.7540(a)(13) and 40 CFR 63.7515(g)]

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

k. The Permittee shall have a one-time energy assessment performed by a qualified energy assessor. The energy assessment must address the requirements in Subpart DDDDD, Table 3, with the extent of the evaluation for items (a) to (e) in Table 3 appropriate for the on-site technical hours listed in 40 CFR 63.7575: An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. The energy assessment shall be completed no later than the compliance date. [40 CFR 63.7500(a)(1) and Table 3 to Subpart DDDDD]

Recordkeeping Requirements [15A NCAC 02Q .0508(f), 40 CFR 63.7555]

l. The Permittee shall:
   i. Keep a copy of each notification and report submitted to comply with Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status, or compliance report that has been submitted. [40 CFR 63.7555(a)(1), 40 CFR 63.10(b)(2)(xiv)]
   ii. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (A) through (C) below:
      (A) The concentrations of carbon monoxide 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 or process heater;
      (B) A description of any corrective actions taken as a part of the tune-up; and
      (C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

   [40 CFR 63.7540(a)(10)(vi)]
m. The Permittee shall:
   i.Maintain records in a form suitable and readily available for expeditious review;
   ii.Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and
   iii. Keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.

   [40 CFR 63.7560 and 40 CFR 63.10(b)(1)]

Reporting Requirements [15A NCAC 02Q .0508(f) and 40 CFR 63.7550(b)]

n. The Permittee shall submit an annual compliance report to the DAQ.
   i. The first compliance report shall be postmarked on or before January 30, 2021, and cover the period from May 20, 2019 through December 31, 2019.
   ii. The compliance reports shall also be submitted electronically to the EPA via the procedures in 40 CFR 63.7550(h).
o. The compliance report shall contain:
   i. The information in 40 CFR 63.7550(c) as applicable.
   ii. For each deviation from an emission limit or operating limit, the report shall contain the information in 40 CFR 63.7550(d) and (e) as applicable.

5. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. The Permittee shall comply with all applicable provisions, including emission limits, notification, testing, reporting, recordkeeping, and monitoring requirements, in accordance with 15A NCAC 02D .0530, "Prevention of Significant Deterioration of Air Quality".

b. The following Best Available Control Technology (BACT) limits shall not be exceeded:

Pollutant	BACT Emission Limit	Control Technology
Carbon Monoxide	0.08 lb/million Btu (6-hour average), all operations except startups and shutdowns	Good combustion practices and the use of pipeline quality natural gas
VOCs	0.0055 lb/million Btu (6-hour average), all operations except start-ups and shut-downs	

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 B.5.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

d. The Permittee shall perform periodic tune-ups on the auxiliary boilers (**ID Nos. ES-3(AuxB1) and ES-4(AuxB2)**) in accordance with the MACT Subpart DDDDD requirements in Section 2.1 B.4.h through 2.1 B.4.j and comply with the associated Subpart DDDDD recordkeeping and reporting.

6. 15A NCAC 02D .0530(u): USE OF PROJECTED ACTUAL EMISSIONS TO AVOID APPLICABILITY OF PREVENTION OF SIGNIFICANT DETERIORATION REQUIREMENTS

Monitoring/Recordkeeping/Reporting [15A NCAC 02D .0530(u)]

a. The Permittee has used projected actual emissions to avoid applicability of prevention of significant deterioration requirements, pursuant to Application 8500004.18A, for the natural gas co-firing project. The Permittee shall perform the following:
   i. The Permittee shall maintain records of annual emissions in tons per year, on a calendar year basis related to the hot gas path modifications, for five years following resumption of regular operations after the change is made.
   ii. The Permittee shall submit a report to the director within 60 days after the end of each calendar year during which these records must be generated. The report shall contain the items listed in 40 CFR 51.166(r)(6)(v)(a) through (c).
   iii. The Permittee shall make the information documented and maintained under this condition available to the Director or the general public pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).
   iv. The reported actual emissions (post-construction emissions) for each of the five calendar years will be compared to the projected actual emissions (pre-construction projection) as included below:

Regulated NSR Pollutant	Projected Actual Emissions* (tons per year)	
	Aux Boiler 1 (ID No. ES-3(AuxB1))	Aux Boiler 2 (ID No. ES-4(AuxB2))
Nitrogen Oxides (as NO_2)	5.15	5.74
Particulate Matter (filterable)	4.80E-02	5.35E-02
PM_{10}	1.31E-02	1.46E-02
$PM_{2.5}$	1.09E-02	1.21E-02
Sulfur Dioxide	1.52E-02	1.69E-02
Hydrogen Fluoride	ND	ND
Lead	1.26E-05	1.41E-05
Sulfuric Acid Mist	ND	ND
GHG as CO_{2e}	3,011	3,356

*These projections are not enforceable limitations. If projected emissions are exceeded, consistent with 15A NCAC 02D .0530, the Permittee shall include in its annual report an explanation as to why the actual rates exceeded the projection.

C. One No. 2 fuel oil-fired emergency/blackout protection diesel generator (ID No. ES-4a(EmGen))

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
Hazardous Air Pollutants	None **See Section 2.2 C**	15A NCAC 02D .1111 40 CFR Part 63, Subpart ZZZZ

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

a. Emissions of sulfur dioxide from this source **(ID No. ES-4a(EmGen))** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

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

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of No. 2 fuel oil in this source **(ID No. ES-4a(EmGen))**.

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

a. Visible emissions from this source (**ID No. ES-4a(EmGen))** shall not be more than 20 percent opacity (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.

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 .0521.

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

c. To ensure compliance, the Permittee shall perform a Method 9 test for 1 hour using a pre-approved protocol to be submitted in accordance with General Condition JJ before the sources operate more than 1,100 hours using No. 2 fuel oil. This monitoring protocol shall be repeated before each subsequent 1,100 hours of operation using No. 2 fuel oil from the last test for each source. If the results of any Method 9 test is above the limit in Section 2.1 C.2.a above, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

d. The Permittee shall keep records of the hours and associated dates when these sources are in operation using No. 2 fuel oil, and the dates of performance of Method 9 tests. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

e. The Permittee shall submit the results of any Method 9 test postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. No report is required if a Method 9 test was not performed during the reporting period. All instances of deviations from the requirements of this permit must be clearly identified.

D. Limestone Unloading, Transfer, and Processing Equipment:

- **The following sources:**
  - **Limestone rail unloading station (ID No. ES-6(RUL)),**
  - **two limestone rail unloading hoppers (ID No. ES-6a(RULa) and ES-6b(RULb)),**
  - **72 inches wide limestone rail unloading belt feeder (ID No. ES-7(LUBF))**

  Each with shared pulse jet bagfilter (ID No. CD (RULBf))
- **The following sources:**
  - **48 inches wide limestone unloading conveyor (ID No. ES-8(LCB1)),**
  - **48 inches wide limestone stack-out conveyor (ID No. ES-10(LCB2)),**
  - **40 inches wide limestone reclaim grate feeder (ID No. ES-11a(LRGF)),**
  - **30 inches wide limestone reclaim conveyor (ID No. ES-11b(LCB3)),**
  - **30 inches wide limestone weigh feeder belt for silo 1 (ID No. ES-19(LCB6)),**
  - **30 inches wide limestone weigh feeder belt for silo 2 (ID No. ES-20(LCB7)),**
  - **limestone wet ball mill 1 (ID No. ES-21(BM1)), and**
  - **limestone wet ball mill 2 (ID No. ES-22(BM2))**
- **The following sources:**
  - **30 inches wide limestone plant feed conveyor (ID No. ES-13a(LCB3a)),**
  - **30 inches wide limestone silo fill conveyor 1 (ID No. ES-15(SCB4)),**
  - **30 inches wide limestone silo fill conveyor 2 (ID No. ES-16(SCB5)),**
  - **limestone storage silo 1 (ID No. ES-17(LS1)), and**
  - **limestone storage silo 2 (ID No. ES-18(LS2))**

  Each with shared pulse jet bagfilter (ID No. CD (LPTTBf))

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	Affected emission sources: **ID Nos. ES-6(RUL), ES-6a(RULa), ES-6b(RULb), ES-7(LUBF), ES-13a(LCB3a), ES-15(SCB4), ES-16(SCB5), ES-17(LS1), and ES-18(LS2)** **See Section 2.2 B**	15A NCAC 02Q.0317(a) (PSD avoidance)
Particulate Matter	Affected emission sources: All listed above under Section 2.1 D Ambient Air Quality Standards	15A NCAC 02D .0510
Visible Emissions	Affected emission sources: **ID Nos. ES-6(RUL) and ES-10(LCB2)** 20 percent opacity	15A NCAC 02D .0521
Particulate Matter from Stacks	Affected emission sources: **ID Nos. ES-6a (RULa), ES-6b (RULb), ES-7(LUBF), ES-13a(LCB3a), ES-15(SCB4), ES-16 (SCB5), ES-17(LS1), and ES-18(LS2)** 0.05 g/dscm (0.022 gr/dscf)	15A NCAC 02D .0524, NSPS Subpart OOO 40 CFR 60.672(a)(1)
Visible Emissions from Stacks	Affected emission sources: **ID Nos. ES-6a(RULa), ES-6b(RULb), ES-7(LUBF), ES-13a(LCB3a), ES-15(SCB4), ES-16(SCB5), ES-17(LS1), and ES-18(LS2)** 7 percent opacity	15A NCAC 02D .0524, NSPS Subpart OOO 40 CFR 60.672(a)(2)
Visible Emissions from Fugitive Sources (Other Than Crushers) not Enclosed in a Building	Affected emission sources: Transfer point from ES-11a(LRGF) to ES-11b(LCB3) 10 percent opacity	15A NCAC 02D .0524, NSPS Subpart OOO 40 CFR 60.672(b)

Pollutant	Limits/Standards	Applicable Regulation
Visible Emissions from Fugitive Sources (Other Than Crushers) Enclosed in a Building	Affected emission sources: Transfer point from ES-8(LCB1) to ES-10 inside limestone unloading transfer tower, transfer point from ES-11b(LCB3) to ES-13a(LCB3a) inside yard transfer tower, and ES-19(LCB6) and ES-20(LCB7) located inside the reagent preparation building No visible emissions from building except from a vent as defined in 40 CFR 60.671 (see Section 2.1 D.3.d for vent requirements) OR: 10 percent opacity from the individual emission sources	15A NCAC 02D .0524, NSPS Subpart OOO 40 CFR 60.672(e) OR: 40 CFR 60.672(b)
Visible Emissions from Crushers Enclosed in a Building	Affected emission sources: **ID Nos. ES-21(BM1) and ES-22(BM2)** located inside the reagent preparation building No visible emissions from building except from a vent as defined in 40 CFR 60.671 (see Section 2.1 D.3.d for vent requirements) OR: 15 percent opacity from the individual emission sources	15A NCAC 02D .0524, NSPS Subpart OOO 40 CFR 60.672(e) OR: 40 CFR 60.672(c)
Fugitive Non-Process Dust Emissions	Affected emission sources: All listed above under Section 2.1 D **See Section 2.2 A.1**	15A NCAC 02D .0540
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 D**	15A NCAC 02D .1100

1. 15A NCAC 02D .0510: PARTICULATES FROM SAND, GRAVEL, OR CRUSHED STONE OPERATIONS

a. The Permittee shall not cause, allow, or permit any material in a sand, gravel, or crushed stone operation to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent exceeding the ambient air quality standards beyond the property line for particulate matter, both PM10 and total suspended particulates.
b. Fugitive non-process dust emissions from sand, gravel, or crushed stone operations shall be regulated by 15A NCAC 02D .0540 in Section 2.2 A.1.
c. The Permittee shall control process-generated emissions from conveyors, screens, and transfer points, such that the applicable opacity standards in Section 2.1 D.2 and 2.1 D.3 are not exceeded.

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

d. If emissions tests are required, the testing shall be performed in accordance with the applicable permit limit. If the results of this test are above the applicable limit, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0510.

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

e. The monitoring/recordkeeping/reporting required by Section 2.1 D.3.f through 2.1 D.3.j for particulate matter is sufficient to ensure compliance with 15A NCAC 02D .0510. If the monitoring and recordkeeping requirements in Section 2.1 D.3.f through 2.1 D.3.i are not complied with, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0510.

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

a. Visible emissions from the limestone rail unloading station **(ID No. ES-6(RUL))** and the limestone stack-out conveyor (**ID No. ES-10(LCB2)**) 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 D.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. To ensure compliance, once a month the Permittee shall observe the emissions from the limestone rail unloading station (**ID No. ES-6(RUL)**) and the limestone stack-out conveyor (**ID No. ES-10(LCB2)**) for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either:
   i. immediately shutdown the source and repair the malfunction,
   ii. be deemed to be in noncompliance with 15A NCAC 02D .0521, or
   iii. demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2610 for 30 minutes is below the limit given in Section 2.1 D.2.a above.

   If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

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

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

e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

a. The Permittee shall not allow to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions that:
   i. Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and
   ii. Exhibit greater than 7 percent opacity.
   iii. Emission sources with stack emissions affected by these requirements include:
      (A) Railcar unloading enclosure dust collection system with fabric filter (**ID No. CD(RULBf)**) installed on: two limestone rail unloading hoppers (**ID No. ES-6a(RULa) and ES-6b(RULb)**) and a limestone rail unloading belt feeder (**ID No. ES-7(LUBF)**);
      (B) Limestone plant dust collection system with fabric filter (**ID No. CD (LPTTBf)**) installed on: a limestone plant feed conveyor (**ID No. ES-13a(LCB3a)**), two limestone silo fill conveyors (**ID Nos. ES-15(SCB4) and ES-16(SCB5)**), and two limestone storage silos (**ID Nos. ES-17(LS1) and ES-18(LS2**)); and
      (C) Any vent as defined in 40 CFR 60.671 of any building enclosing any affected emission source.

b. The Permittee shall not allow to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility, fugitive emissions that exhibit greater than 10 percent opacity. Where any transfer points on belt conveyors or any other affected facility are enclosed inside a building, the Permittee may choose to comply with the emission standard requirements for building enclosures as defined below under Section 2.1 D.3.d below instead.

c. On and after the date on which the performance test is completed, the Permittee shall not allow to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions that exhibit greater than 15 percent opacity. Affected sources include the two limestone wet ball mills (**ID Nos. ES-21(BM1) and ES-22(BM2)**) located inside the reagent preparation building. Since the affected sources are enclosed inside a building, the Permittee may choose to comply to comply with the emission standard requirements for building enclosures as defined below under Section 2.1 D.3.d, below, instead.

d. In lieu of the meeting the requirements of Sections 2.1 D.3.b and c. for NSPS-affected emissions sources enclosed inside a building, the Permittee may choose to comply with the following requirements:
   i. No visible fugitive emissions are allowed from any building enclosing any transfer point on a conveyor belt or any other affected facility except emissions from a vent as defined in 40 CFR 60.671.
   ii. Any vent as defined in 40 CFR 60.671 on any building enclosing any transfer point on a conveyor belt or any other affected facility shall not discharge emissions of particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf) or visible emissions in excess of 7 percent opacity.
   iii. Affected buildings include the limestone unloading transfer tower which houses the transfer point between ES-8(LCB1) and ES-10(LCB2), the yard transfer tower which houses the transfer point between ES-11b(LCB3) and ES-13a(LCB3a), and the reagent preparation building which houses ES-19(LCB6), ES-20(LCB7), ES-21(BM1), and ES-22(BM2).

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

e. 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 D.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

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

f. Particulate matter emissions from sources (**ID Nos. ES-6a(RULa), ES-6b(RULb) and ES-7(LUBF)**) shall be controlled by bagfilter (**ID No. CD (RULBf)**), and particulate matter emissions from sources **(ID Nos. ES-13a (LCB3a), ES-15(SCB4), ES-16(SCB5), ES-17(LS1) and ES-18(LS2)**) shall be controlled by bagfilter **(ID No. CD (LPTTBf)**). To assure compliance, the Permittee shall perform inspections and maintenance on the fabric filters as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i.A monthly visual inspection of the system ductwork and baghouse for leaks; and
   ii. An annual (for each 12-month period following the initial inspection) internal inspection of the bagfilter's structural integrity.

g. To assure compliance with the opacity standards, once a month the Permittee shall observe the individual NSPS-affected emission sources **(ID Nos. ES-6a(RULa), ES-6b(RULb), ES-7(LUBF), ES-8(LCB1), ES-11a(LRGF), ES-11b(LCB3), ES-13a(LCB3a), ES-15(SCB4), ES-16(SCB5), ES-17(LS1), ES-18(LS2), ES-19(LCB6), ES-20(LCB7), ES-21(BM1), and ES-22(BM2))** subject to an opacity standard, or the buildings/enclosures housing these sources, for any visible emissions above normal. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
   i.immediately shutdown the source and repair the malfunction,
   ii.be deemed to be in noncompliance with 15A NCAC 02D .0521 or
   iii. demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2610 for 30 minutes is below the limit given in Sections 2.1 D.3.a.ii, 2.1 D.3.b, and 2.1 D.3.c above.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the ductwork and bagfilters are not inspected and maintained and/or if the demonstration in Paragraph 2.1 D.3.g.iii cannot be made.

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

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

i. The results of the visible emission monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i.The date and time of each recorded action;
   ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii.The results of any corrective actions performed.
   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

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

j. The Permittee shall submit a summary report of the monitoring and recordkeeping activities by 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. No. 2 fuel oil fired emergency-use water pump (ID No. ES-23(EQWP))

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
Hazardous Air Pollutants	None **See Section 2.2 C.1**.	15A NCAC 02D .1111 40 CFR Part 63, Subpart ZZZZ

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

a. Emissions of sulfur dioxide from this source **(ID No. ES-23(EQWP))** 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.
[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 from the firing of No. 2 fuel oil in this source **(ID No. ES-23(EQWP))**.

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

a. Visible emissions from this source (**ID No. ES-23(EQWP))** shall not be more than 20 percent opacity (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.

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

c. To assure compliance, the Permittee shall perform a Method 9 test for 1 hour using a pre-approved protocol to be submitted in accordance with General Condition JJ before the source operates more than 1,100 hours using No. 2 fuel oil. This monitoring procedure shall be repeated before each subsequent 1,100 hours of operation using No. 2 fuel oil from the last test. 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.

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

d. The Permittee shall keep records of hours and associated dates, when this source is in operation using No. 2 fuel oil, and the dates of performance of Method 9 tests. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

e. The Permittee shall submit the results of any Method 9 test postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the

preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. No report is required if a Method 9 test was not performed during the reporting period. All instances of deviations from the requirements of this permit must be clearly identified.

F. Limestone stockpile (ID No. F1)

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

Pollutant	Limits/Standards	Applicable Regulation
Fugitive Non-Process Dust Emissions	**See Section 2.2 A**	15A NCAC 02D .0540
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 D**	15A NCAC 02D .1100

G. Lime storage silos (ID Nos. ES-33a (Silo,wwtf) and ES-33b(Silo,wwtf)) and associated pulse jet bagfilters (ID Nos. CD-wwtfBfa and CD-wwtfBfb)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	Ambient Air Quality Standards	15A NCAC 02D .0510
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Fugitive Non-Process Dust Emissions	**See Section 2.2 A**	15A NCAC 02D .0540
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 D**	15A NCAC 02D .1100

1. 15A NCAC 02D .0510: PARTICULATES FROM SAND, GRAVEL, OR CRUSHED STONE OPERATIONS

a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent exceeding the ambient air quality standards beyond the property line for particulate matter, both PM10 and total suspended particulates.
b. Fugitive non-process dust emissions shall be controlled by 15A NCAC 02D .0540.
c. The Permittee shall control emissions from conveyors, screens, and transfer points, such that the applicable opacity standard is not exceeded.

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

d. 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 G.2 below, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0510.

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

e. Particulate matter emissions from the emission sources (**ID Nos. ES-33a(Silo,wwtf) and ES-33b(Silo,wwtf)**) shall be controlled by the associated bagfilters (**ID Nos. CD-wwtfBfa and CD-wwtfBfb**). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i.A monthly visual inspection of the system ductwork and material collection unit for leaks; and
   ii. An annual (for each 12-month period following the initial inspection) internal inspection of the bagfilter's structural integrity.
f. The Permittee shall comply with the requirements in Section 2.1 G.2.c.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0510 if the ductwork and bagfilters are not inspected and maintained and/or if the requirements in Section 2.1 G.1.f are not met.

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

g. The results of inspection and maintenance in Section 2.1 G.1.e above shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date and time of each recorded action;
   ii. The results of each inspection;
   iii. The results of any maintenance performed on the bagfilters; and
   iv. Any variance from manufacturer's recommendations, if any, and corrections made.

h. The Permittee shall keep records as required by Section 2.1 G.2.d.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0510 if these records are not maintained.

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

i. The Permittee shall submit a summary report of the monitoring and recordkeeping activities by 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.

j. The Permittee shall submit reports as required by Section 2.1 G.2.e.

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

a. Visible emissions from these sources **(ID Nos. ES-33a(Silo,wwtf) and ES-33b(Silo,wwtf))** 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 limits given in Section 2.1 G.2.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. To ensure compliance, once a month the Permittee shall observe the emission points (**ID Nos. CD-wwtfBfa and CD-wwtfBfb**) of these sources for any visible emissions above normal. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
   i. immediately shutdown the source and repair the malfunction,
   ii. be deemed to be in noncompliance with 15A NCAC 02D .0521 or,
   iii. demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2610 for 30 minutes is below the limit given in Section 2.1 G.2.a above.

   If the demonstration in 2.1 G.2.c, above, cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

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

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

e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

H. Wastewater treatment facility (ID No. F3)

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

Pollutant	Limits/Standards	Applicable Regulation
Hydrogen Sulfide	10 tons per year	15A NCAC 02Q.0317(a)(1) (PSD avoidance)
	2.206 pounds per hour	15A NCAC 02D .1100

1. 15A NCAC 02Q .0317: AVOIDANCE CONDITION (Avoidance of 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION)

a. In order to avoid applicability of 15A NCAC 02D .0530(g), emissions of hydrogen sulfide from the wastewater treatment facility (**ID No. F-3**) shall not exceed the PSD significance level of 10 tons per year as calculated by the following equation:

(24 kg/day hydrogen sulfide emission rate) x (365 days/yr) x (2.206 lb/kg) x (1 ton/2000 lb) = 9.66 tons/yr

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 .0530.

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

c. No monitoring/recordkeeping/reporting of hydrogen sulfide emissions from the wastewater treatment facility is required to demonstrate compliance with 15A NCAC 02Q .0317.

State-Enforceable Only

2. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

a. Pursuant to 15A NCAC 02D .1100 and in accordance with the approved application[1] for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

Emission Source	Toxic Air Pollutant	Emission Limit
Wastewater Treatment Facility (**ID No. F-3**)	Hydrogen Sulfide	2.206 Pounds Per Hour

b. To ensure compliance with the above limits, the maximum sulfate concentration shall not exceed 4,000 milligrams per liter at the inlet to bioreactors of the wastewater treatment facility.

Monitoring/Recordkeeping/Reporting [15A NCAC 02D .1106]

c. No monitoring/recordkeeping/reporting for hydrogen sulfide emissions from the wastewater treatment facility is required to show compliance with 15A NCAC 02D .1100.

[1]Approved December 21, 2005.

I. Unit 1 hydrated lime storage silo (ID No. ES-U1SorbSilo) with associated bagfilter (ID No. CD-U1SorbSiloBf)

Unit 2 hydrated lime storage silo (ID No. ES-U2SorbSilo) with associated bagfilter (ID No. CD-U2SorbSiloBf)

Unit 1 Weigh hopper 1 (ID No. ES-U1WHopper1) with associated bagfilter (ID No. CD-U1WH1Bf)

Unit 1 Weigh hopper 2 (ID No. ES-U1Whopper2) with associated bagfilter (ID No. CD-U1WH2Bf)

Unit 1 Weigh hopper 3 (ID No. ES-U1Whopper3) with associated bagfilter (ID No. CD-U1WH3Bf)

Unit 2 Weigh hopper 1 (ID No. ES-U2WHopper1) with associated bagfilter (ID No. CD-U2WH1Bf)

Unit 2 Weigh hopper 2 (ID No. ES-U2Whopper2) with associated bagfilter (ID No. CD-U2WH2Bf)

Unit 2 Weigh hopper 3 (ID No. ES-U2Whopper3) with associated bagfilter (ID No. CD-U2WH3Bf)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ where: E = allowable emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 02D .0515
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 D**	15A NCAC 02D .1100

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

a. Emissions of particulate matter from these sources **(ID No. ES-U1SorbSilo, ES-U2SorbSilo, ES-U1WHopper1, ES-U1Whopper2, ES-U1Whopper3, ES-U2WHopper1, ES-U2Whopper2, and ES-U2Whopper3)** shall not exceed an allowable emission rate as calculated by the following equation:

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

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

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

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

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

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

c. Particulate matter emissions from these sources shall be controlled by the bagfilters (**ID Nos. CD-U1SorbSiloBf, CD-U2SorbSiloBf, CD-U1WH1Bf, CD-U1WH2Bf, CD-U1WH3Bf, CD-U2WH1Bf, CD-U2WH2Bf, and CD-U2WH3Bf**). To ensure that optimum control efficiency is maintained, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement must include the following:
   i. an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters' structural integrity; and
   ii. a monthly visual inspection of the system ductwork, and material collection unit for leaks.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bagfilters are not inspected and maintained.

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

d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic form) on site and made available to an authorized representative upon request. The logbook shall record the following:
   i.the date and time of actions recorded;
   ii.the results of each inspection;
   iii.the results of any maintenance performed on the bagfilters; and
   iv.any variance from manufacturer's recommendations, if any, and corrections made.
   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

e. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.

f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 I.1.c and 2.1 I.1.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.

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

a. Visible emissions from these sources **(ID No. ES-U1SorbSilo, ES-U2SorbSilo, ES-U1WHopper1, ES-U1Whopper2, ES-U1Whopper3, ES-U2WHopper1, ES-U2Whopper2, and ES-U2Whopper3)** 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 I.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. To ensure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following start-up of the sources. The monthly observations must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
   i.immediately shutdown the source and repair the malfunction,
   ii.be deemed to be in noncompliance with 15A NCAC 02D .0521 or
   iii. demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2610 for 30 minutes is below the limit given in Section 2.1 I.2.a above.

   If the demonstration in 2.1 I.2.c.iii, above, cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

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

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

e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

J. Flyash handling sources:

Units 1 and 2 dry flyash transfer system (ID No. ES-TS-1) and associated bagfilter CD-BF-7)

Two flyash storage and handling silos (ID Nos. SILO-3 and SILO-5), with associated bagfilters (ID Nos. CD-BF-6 and BF-5)

One flyash storage and handling silo (ID No. SILO-4) and dry flyash truck loading station (ID No. DFAL-4a), each with associated bagfilter (ID No. BF-4)

One dry flyash truck loading station (ID No. DFAL-4b), with associated cartridge filter (ID No. CD-4b)

One wet flyash truck loading station (ID No. WFAL-3), with associated flyash conditioner injection (ID No. FAC-3)

One wet flyash truck loading station (ID No. WFAL-5), with associated flyash conditioner injection (ID No. FAC-5)

One flyash storage dome (ID No. DOME-1), with associated bagfilter (ID No. DBF-1)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ where: E = allowable emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 02D .0515
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Toxic Air Pollutants	**State-enforceable only** **See Section 2.2 D**	15A NCAC 02D .1100
Fugitive Non-Process Dust Emissions	**See Section 2.2 A**	15A NCAC 02D .0540
Various	**See Section 2.1 J.3**	15A NCAC 02D .0530(u)

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

a. Emissions of particulate matter from these sources **(ID Nos. ES-TS-1, SILO-3, SILO-4, SILO-5, DFAL-4a, DFAL-4b, WFAL-3, WFAL-5, and DOME-1)** shall not exceed an allowable emission rate as calculated by the following equation:

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

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

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

b. **Testing** [15A NCAC 02Q .0508(f)]
If emissions testing is required, the testing shall be performed in accordance with General Condition JJ.

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

c. Particulate matter emissions from these sources shall be controlled by the control devices as described above. To ensure that optimum control efficiency is maintained, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement must include the following:
   i. an annual (for each 12-month period following the initial inspection) internal inspection of the cartridge/bagfilters' structural integrity; and
   ii. a monthly visual inspection of the system ductwork, and material collection unit for leaks.

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

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

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

e. The Permittee shall submit the results of any maintenance performed on the filters within 30 days of a written request by the DAQ.

f. The Permittee shall submit a summary report of the 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 .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources **(ID Nos. ES-TS-1, SILO-3, SILO-4, SILO-5, DFAL-4a, DFAL-4b, WFAL-3, WFAL-5,** and **DOME-1)** 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.

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

c. To ensure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. The Permittee shall establish "normal" for these sources (**ID Nos. ES-TS-1, SILO-3** and **SILO-5**) within 30 days of commencement of operation of new or modified equipment. The monthly observations

must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:

i. immediately shutdown the source and repair the malfunction,
ii. be deemed to be in noncompliance with 15A NCAC 02D .0521 or
iii. demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2610 for 30 minutes is below the limit given in Section 2.1 J.2.a above.

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

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

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

e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0530(u): USE OF PROJECTED ACTUAL EMISSIONS TO AVOID APPLICABILITY OF PREVENTION OF SIGNIFICANT DETERIORATION REQUIREMENTS

a. The Permittee has used projected actual emissions to avoid applicability of prevention of significant deterioration requirements for a dry flyash handling project (**ID Nos. SILO-3, SILO-4, SILO-5, DFAL-4a, DFAL-4b, WFAL-3, WFAL-5,** and **DOME-1**).

The Permittee shall comply with the following record keeping and reporting requirements.

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

b. The Permittee shall maintain records of annual emissions for particulates, PM_{10}, $PM_{2.5}$, and lead in tons per year on a calendar year basis related to the modification, for five years following the resumption of regular operations after completion of the dry flyash handling project.

The Permittee shall make the above information, documented and maintained in this Section 2.1 J.3.b, available to the Director or the general public pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).

c. The Permittee shall submit a report to the Director within 60 days after the end of each calendar year during which the records in Section 2.1 J.3.b must be kept. The report shall contain the items listed in 40 CFR 51.166(r)(6)(v)*(a)* through *(c)*.

The reported actual emissions (post-construction emissions) for each of the five calendar years will be compared to the following projected actual emissions (pre-construction projection) as included in the Duke Energy Carolinas, LLC - Belews Creek Steam Station permit application 8500004.17A:

Pollutant	Projected Actual Emissions* (tons per year)
	ID Nos. SILO-3, SILO-4, SILO-5, DFAL-4a, DFAL-4b, WFAL-3, WFAL-5, and DOME-1 (total)
Particulate Matter	0.80
PM_{10}	0.27
$PM_{2.5}$	0.27
Lead	6.26E-05

*These projections are not enforceable limitations. If projected emissions are exceeded, consistent with 15A NCAC 2D .0530, the Permittee shall include in its annual report an explanation as to why the actual rates exceeded the projection.

K. Four natural gas-fired, natural gas supply line heaters (ID Nos. ES-34a, ES-34b, ES-34c and ES-34d)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	0.079 pound 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	20 percent opacity	15A NCAC 02D .0521
Hazardous Air Pollutants	**See Section 2.1 K.4**	15A NCAC 02D .1111 (40 CFR Part 63, Subpart DDDDD)
Carbon Monoxide and VOCs	**See Section 2.1 K.5**	15A NCAC 02D .0530

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

a. Emissions of particulate matter from the combustion of natural gas that are discharged from these sources **(ID Nos. ES-34a, ES-34b, ES-34c and ES-34d)** into the atmosphere shall not exceed 0.079 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.

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

c. No monitoring/recordkeeping/reporting is required for emissions of particulate matter from the firing of natural gas in these sources **(ID Nos. ES-34a, ES-34b, ES-34c and ES-34d)** to demonstrate compliance with 15A NCAC 02D .0503.

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

a. Emissions of sulfur dioxide from these sources 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

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources.

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

a. Visible emissions from these sources 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.

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

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas from these sources.

4. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.7485, 40 CFR 63.7490(d), and 40 CFR 63.7499(l)]

a. For new sources without a continuous oxygen trim system and with heat input capacity of less than 10 million Btu per hour, but greater than 5 million Btu per hour, in the *Unit designed to burn gas 1 subcategory*, the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart DDDDD "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" [Subpart DDDDD] and Subpart A "General Provisions".
   i. The Permittee shall comply with Subpart DDDDD upon startup. [63.7495(a)]

Definitions and Nomenclature [40 CFR 63.7575]

b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.7575 shall apply.

40 CFR Part 63 Subpart A General Provisions [40 CFR 63.7565]

c. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A General Provisions according to the applicability of Subpart A to such sources as identified in Table 10 to Subpart DDDDD.

Compliance Date [40 CFR 63.7510(g) and 40 CFR 63.56(b)]

d. The Permittee shall comply with this subpart upon startup of the process heaters.

General Compliance Requirements [40 CFR 63.7505(a) and 40 CFR 63.7500(a)(3)]

e. At all times the affected unit(s) is operating, the Permittee shall be in compliance with the emission standards in Section 2.1.K.4.f, except during periods of startup and shutdown. [40 CFR 63.7500(a)(3)]
f. At all times, the Permittee shall operate and maintain any affected source (as defined in §63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

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

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

Work Practice Standards [15A NCAC 02Q .0508(f)]

h. The Permittee shall conduct a biennial tune-up of the source(s) as specified below.
   i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled or unscheduled unit shutdown;
   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 inspection until the next scheduled unit shutdown);
   iv. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject; and
   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.

   [40 CFR 63.7540(a)(11) and 40 CFR 63.7500(e)]
i. The Permittee shall demonstrate initial compliance with the applicable work practice standards in Table 3 to this subpart within the applicable biennial schedule as specified in 40 CFR 63.7515(d) following the initial compliance date. Thereafter, the applicable biennial tune-up is required to be completed as specified in 40 CFR 63.7515(d). [40 CFR 63.7510(g)]
j. Each biennial tune-up shall be conducted no more than 25 months after the previous tune-up. [40 CFR 63.7515(d)]
k. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR 63.7540(a)(13) and 40 CFR 63.7515(g)]

Recordkeeping Requirements [15A NCAC 02Q .0508(f) and 40 CFR 63.7555]

l. The Permittee shall:
   i. Keep a copy of each notification and report submitted to comply with Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status, or compliance report that has been submitted. [40 CFR 63.7555(a)(1) and 40 CFR 63.10(b)(2)(xiv)]
   ii. Maintain on-site and submit, if requested by the Administrator, a biennial report containing the information in paragraphs (A) through (C) below:
      (A) The concentrations of carbon monoxide 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 or process heater;
      (B) A description of any corrective actions taken as a part of the tune-up; and
      (C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
   [40 CFR 63.7540(a)(10)(vi)]

m. The Permittee shall:
   i. Maintain records in a form suitable and readily available for expeditious review;
   ii. Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and
   iii. Keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.
   [40 CFR 63.7560 and 40 CFR 63.10(b)(1)]

Reporting Requirements [15A NCAC 02Q .0508(f) and 40 CFR 63.7550(b)]

n. The Permittee shall submit a biennial compliance report to the DAQ.
   i. The first compliance report shall be postmarked on or before January 30, 2021, and cover the period from May 20, 2019 through December 31, 2020.
   ii. The compliance reports shall also be submitted electronically to the EPA via the procedures in 40 CFR 63.7550(h).

o. The compliance report shall contain:
   i. The information in 40 CFR 63.7550(c) as applicable.
   ii. For each deviation from an emission limit or operating limit, the report shall contain the information in 40 CFR 63.7550(d) and 40 CFR 63.7550(e), as applicable.

5. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. The Permittee shall comply with all applicable provisions, including emission limits, notification, testing, reporting, recordkeeping, and monitoring requirements, in accordance with 15A NCAC 02D .0530, "Prevention of Significant Deterioration of Air Quality".

b. The following Best Available Control Technology (BACT) limits shall not be exceeded:

Pollutant	BACT Emission Limit	Control Technology
Carbon Monoxide	0.0914 lb/million Btu (6-hour average), all operations except startups and shutdowns	Good combustion practices and the use of pipeline quality natural gas
Volatile Organic Compounds	0.0644 lb/million Btu (6-hour average), all operations except start-ups and shut-downs	

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

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

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

d. The Permittee shall perform periodic tune-ups on the natural gas supply line heaters (**ID Nos. ES-34a, ES-34b, ES-34c and ES-34d**) in accordance with the MACT Subpart DDDDD requirements in Section 2.1 B.5.h through 2.1 B.5.j and comply with the associated Subpart DDDDD recordkeeping and reporting.

L. Natural gas supply line pigging operation including fugitive emissions from pig receiver vent (ID No. ES-PIGGING) with associated temporary flare of natural gas from supply line (ID No. CD-PIG FLARE)

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
Carbon Monoxide and VOCs	work practices	15A NCAC 02D .0530
Toxic Air Pollutants	**See Section 2.2 D.1**	15A NCAC 02D .1100

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

a. Emissions of sulfur dioxide from these sources 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

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

c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in this source.

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

a. Visible emissions from these sources 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.

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

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas from this source.

3. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. The Permittee shall comply with all applicable provisions, including emission limits, notification, testing, reporting, recordkeeping, and monitoring requirements, in accordance with 15A NCAC 02D .0530, "Prevention of Significant Deterioration of Air Quality".

b. The following Best Available Control Technology (BACT) limits shall not be exceeded:

Pollutant	BACT Emission Limit	Control Technology
Carbon Monoxide	work practices	flare
VOCs	work practices	

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

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

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

d. CO and VOC emissions from the natural gas supply line pigging operation (**ID No. ES-PIGGING**) shall be controlled as follows:

The flare (**ID No. CD-PIG FLARE**) shall be adequately sized and designed for combustion of the natural gas to be vented. Prior to each scheduled day for pigging, the flare will be inspected and maintained in accordance with the manufacturer's recommendations and a record of this activity maintained. A copy of the recommended inspection and maintenance procedure will be maintained on-site and any deviations from standard protocols due to site-specific considerations will be documented and maintained. The work practice standard for the receiver will be to keep access openings to the receiver closed at all times except when a pig is being placed into or removed from the receiver, or during active maintenance operations.

2.2 Multiple Emission Source(s) Specific Limitations and Conditions

A. Limestone rail unloading station (ID No. ES-6(RUL)), two limestone rail unloading hoppers (ID No. ES-6a(RULa) and ES-6b(RULb)), a 72 inches wide limestone rail unloading belt feeder (ID No. ES-7(LUBF)), and associated pulse jet baghouse (ID No. CD (RULBf))

48 inches wide limestone unloading conveyor (ID No. ES-8(LCB1)), 48 inches wide limestone stack-out conveyor (ID No. ES-10(LCB2)), 40 inches wide limestone reclaim grate feeder (ID No. ES-11a(LRGF)), 30 inches wide limestone reclaim conveyor (ID No. ES-11b(LCB3)), 30 inches wide limestone weigh feeder belt for silo 1 (ID No. ES-19(LCB6)), 30 inches wide limestone weigh feeder belt for silo 2 (ID No. ES-20(LCB7)), limestone wet ball mill 1 (ID No. ES-21(BM1)), and limestone wet ball mill 2 (ID No. ES-22(BM2))

30 inches wide limestone plant feed conveyor (ID No. ES-13a(LCB3a)), 30 inches wide limestone silo fill conveyor 1 (ID No. ES-15 (SCB4)), 30 inches wide limestone silo fill conveyor 2 (ID No. ES-16(SCB5)), limestone storage silo 1 (ID No. ES-17(LS1)), limestone storage silo 2 (ID No. ES-18(LS2)), and associated pulse jet bagfilter (ID No. CD (LPTTBf))

One limestone stockpile (ID No. F1)

Lime storage silos (ID Nos. ES-33a (Silo,wwtf) and ES-33b(Silo,wwtf)) and associated pulse jet bagfilters (ID Nos. CD-wwtfBfa and CD-wwtfBfb)

Units 1 and 2 dry flyash transfer system (ID No. ES-TS-1) and associated bagfilter CD-BF-7)

Two flyash storage and handling silos (ID Nos. SILO-3 and SILO-5), with associated bagfilters (ID Nos. CD-BF-6 and BF-5)

One flyash storage and handling silo (ID No. SILO-4) and dry flyash truck loading station (ID No. DFAL-4a), each with associated bagfilter (ID No. BF-4)

One dry flyash truck loading station (ID No. DFAL-4b), with associated cartridge filter (ID No. CD-4b)

One wet flyash truck loading station (ID No. WFAL-3), with associated flyash conditioner injection (ID No. FAC-3)

One wet flyash truck loading station (ID No. WFAL-5), with associated flyash conditioner injection (ID No. FAC-5)

One flyash storage dome (ID No. DOME-1), with associated bagfilter (ID No. DBF-1)

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

Pollutant	Limits/Standards	Applicable Regulation
Fugitive Non-Process Dust Emissions	Fugitive non-process dust emissions shall not cause or contribute to substantive complaints	15A NCAC 02D .0540

1. 15A NCAC 02D .0540: PARTICULATES FROM FUGITIVE NON-PROCESS DUST EMISSION SOURCES

a. For the purpose of this Rule, the following definitions shall apply:
   i. "Fugitive non-process dust emission" means particulate matter that is not collected by a capture system and is generated from areas such as pit areas, process areas, haul roads, stockpiles, and plant roads.
   ii. “Substantive complaints” means complaints that are verified with physical evidence acceptable to the DAQ.
b. The Permittee shall not cause or allow fugitive non-process dust emissions to cause or contribute to substantive complaints.
c. If fugitive non-process dust emissions from a facility required complying with this Rule cause or contributing to substantive complaints, the Permittee shall:
   i. Within 30 days upon receipt of written notification from the Director of a second substantive complaint in a 12-month period, submit to the Director a written description of what has been done and what will be done to reduce fugitive non-process dust emissions from that part of the facility that caused the second substantive complaint;
   ii. Within 90 days of receipt of written notification from the Director of a second substantive complaint in a 12-month period, submit to the Director a control plan as described in Paragraph (e) of this Rule; and
   iii. Within 30 days after the Director approves the plan, be in compliance with the plan.
d. The Director may require that the Permittee develop and submit a fugitive non-process dust control plan as described Paragraph (e) of this Rule if:
   i. Ambient air quality measurements or dispersion modeling acceptable to the DAQ show violation or a potential for a violation of an ambient air quality standard for particulates in 15A NCAC 02D .0400 “Ambient Air Quality Standards;” or
   ii. The DAQ observes excessive fugitive non-process dust emissions from the facility beyond the property boundaries.

   The control plan shall be submitted to the Director no later than 90 days after notification. The facility shall be in compliance with the plan within 30 days after the Director approves the plan.
e. The fugitive dust control plan shall:
   i. Identify the sources of fugitive non-process dust emissions within the facility;
   ii. Describe how fugitive non-process dust will be controlled from each identified source;
   iii. Contain a schedule by which the plan will be implemented;
   iv. Describe how the plan will be implemented, including training of facility personnel; and
   v. Describe methods to verify compliance with the plan.
f. The Director shall approve the plan if:
   i. The plan contains all required elements in Paragraph (e) of this Rule;
   ii. The proposed schedule contained in the plan will reduce fugitive non-process dust emissions in a timely manner;
   iii. The methods used to control fugitive non-process dust emissions are sufficient to prevent fugitive non-process dust emissions from causing or contributing to a violation of the ambient air quality standards for particulates; and
   iv. The described compliance verification methods are sufficient to verify compliance with the plan.

   If the Director finds that the proposed plan does not meet the requirements of this Paragraph he shall notify the Permittee of any deficiencies in the proposed plan. The Permittee shall have 30 days after receiving written notification from the Director to correct the deficiencies.
g. If, after a plan has been implemented, the Director finds that the plan inadequately controls fugitive non-process dust emissions, the Permittee shall be required to correct the deficiencies in the plan. Within 90 days after receiving written notification from the Director identifying the deficiency, the Permittee shall submit a revision to his plan to correct the deficiencies.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0540 if the fugitive dust plan is not submitted as required above and/or if the Permittee does not operate according to the approved fugitive dust plan.

B. Limestone rail unloading station (ID No. ES-6(RUL)), two limestone rail unloading hoppers (ID No. ES-6a(RULa) and ES-6b(RULb)), a 72 inches wide limestone rail unloading belt feeder (ID No. ES-7(LUBF)), and associated pulse jet baghouse (ID No. CD (RULBf))

30 inches wide limestone plant feed conveyor (ID No. ES-13a(LCB3a)), 30 inches wide limestone silo fill conveyor 1 (ID No. ES-15(SCB4)), 30 inches wide limestone silo fill conveyor 2 (ID No. ES-16(SCB5)), limestone storage silo 1 (ID No. ES-17(LS1)), limestone storage silo 2 (ID No. ES-18(LS2)), and associated pulse jet bagfilter (ID No. CD (LPTTBf))

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	As defined in specific condition	15A NCAC 02Q.0317 (PSD avoidance)

1. 15A NCAC 02Q .0317: AVOIDANCE CONDITION (For 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION)

a. In order to avoid applicability of 15A NCAC 02D .0530(g):
   i. the limestone rail unloading system consisting of limestone rail unloading station (**ID No. ES-6(RUL)**), two limestone rail unloading hoppers (**ID No. ES-6a(RULa) and ES-6b(RULb)**), a 72 inches wide limestone rail unloading belt feeder (**ID No. ES-7(LUBF)**), and associated pulse jet baghouse (**ID No. CD (RULBf)**) shall:
   (A)not operate more than 832 hours per consecutive 12-month period, and
   (B)keep particulate emissions below 1.71 tons per year;
   ii. the 30 inches wide limestone plant feed conveyor (**ID No. ES-13a(LCB3a)**), 30 inches wide limestone silo fill conveyor 1 (**ID No. ES-15(SCB4)**), 30 inches wide limestone silo fill conveyor 2 (**ID No. ES-16(SCB5)**), limestone storage silo 1 (**ID No. ES-17(LS1)**), limestone storage silo 2 (**ID No. ES-18(LS2)**), and associated pulse jet bagfilter (**ID No. CD (LPTTBf)**) shall:
   (A) not operate more than 2,555 hours per consecutive 12-month period, and
   (B) keep particulate emissions below 1.85 tons per year; and
   iii. keep total particulate emissions from all sources added by Application No. 8500004.05B (received May 16, 2005) below the PSD significance level of 25 tons per year.

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 2.2 B.1.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 number of hours of operation for these sources. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the number of hours of operation is not monitored and/or if the monitoring indicates an exceedance of the limits given in Section 2.2 B.1.a above.

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

d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the 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 hours of operation for these sources for the previous 17 months. 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.

C. Emergency/blackout protection diesel generator (ID No. ES-4a(EmGen))

Emergency-use water pump (ID No. ES-23(EQWP))

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	None	15A NCAC 02D .1111 (40 CFR Part 63, Subpart ZZZZ)

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

According to 40 CFR 63.6590(b)(3)(iii), existing emergency-use engines located at a major source of HAPs with a brake horsepower rating greater than 500 do not have to meet the requirements of 40 CFR Part 63, Subpart ZZZZ.

D. Facility wide toxics demonstration

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

Pollutant	Limits/Standards	Applicable Regulation
Toxic Air Pollutants	**State-enforceable only** Emissions rates modeled to demonstrate compliance with acceptable ambient levels.	15A NCAC 02D .1100

State-enforceable only

1. 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:

Permit Source ID Nos.	Source Description	Toxic Air Pollutant	Emissions Limit		
			lb/yr	lb/day	lb/hr
ES-13a, ES-15, ES-16, ES-17, ES-18	Dust Collector Fan Exhaust thru Roof of Limestone Conveyor Plant Transfer Tower	ARSENIC	4.16E-02		
		BERYLLIUM	3.36E-02		
		CADMIUM	1.71E-01		
		MANGANESE		1.52E+00	
		MERCURY		2.45E-04	
		NICKEL		1.60E-02	
ES-6, ES-6a, ES-6b, ES-7	Dust Collector Fan at Train Unloading	ARSENIC	7.15E-02		
		BERYLLIUM	5.78E-02		
		CADMIUM	2.94E-01		
		MANGANESE		2.60E+00	
		MERCURY		4.22E-04	
		NICKEL		2.75E-02	
DOME-1	Storage Dome	ARSENIC	1.84E+00		
		BERYLLIUM	3.58E+00		
		CADMIUM	1.06E+00		
		CHROMIUM VI		6.80E-02	
		MANGANESE		3.40E+00	
		MERCURY		2.59E-02	
		NICKEL		6.58E-01	
SILO-3	Charah Ash Silo	ARSENIC	5.31E+00		
		BERYLLIUM	1.03E+01		
		CADMIUM	3.06E+00		

Permit Source ID Nos.	Source Description	Toxic Air Pollutant	Emissions Limit		
			lb/yr	lb/day	lb/hr
		CHROMIUM VI		1.96E-01	
		MANGANESE		9.82E+00	
		MERCURY		7.48E-02	
		NICKEL		1.90E+00	
SILO-4	Charah Ash Silo	ARSENIC	1.23E+00		
		BERYLLIUM	2.39E+00		
		CADMIUM	7.06E-01		
		CHROMIUM VI		4.53E-02	
		MANGANESE		2.27E+00	
		MERCURY		1.73E-02	
		NICKEL		4.39E-01	
SILO-5	Charah Ash Silo	ARSENIC	5.31E+00		
		BERYLLIUM	1.03E+01		
		CADMIUM	3.06E+00		
		CHROMIUM VI		1.96E-01	
		MANGANESE		9.82E+00	
		MERCURY		7.48E-02	
		NICKEL		1.90E+00	
ES-U1SorbSilo	Hydrated Lime Silo Baghouse	ARSENIC	3.61E-02		
		BERYLLIUM	2.91E-02		
		CADMIUM	1.48E-01		
		MANGANESE		1.31E+00	
		MERCURY		2.13E-04	
		NICKEL		1.39E-02	
ES-U2SorbSilo	Hydrated Lime Silo Baghouse	ARSENIC	3.61E-02		
		BERYLLIUM	2.91E-02		
		CADMIUM	1.48E-01		
		MANGANESE		1.31E+00	
		MERCURY		2.13E-04	
		NICKEL		1.39E-02	
ES-U1Whopper1, ES-U1Whopper2, ES-U1Whopper3	Hydrated Lime Hopper Baghouse	ARSENIC	3.61E-02		
		BERYLLIUM	2.91E-02		
		CADMIUM	1.48E-01		
		MANGANESE		1.31E+00	
		MERCURY		2.13E-04	
		NICKEL		1.39E-02	
ES-U2Whopper1, ES-U2Whopper2, ES-U2Whopper3	Hydrated Lime Hopper Baghouse	ARSENIC	3.61E-02		
		BERYLLIUM	2.91E-02		
		CADMIUM	1.48E-01		
		MANGANESE		1.31E+00	
		MERCURY		2.13E-04	
		NICKEL		1.39E-02	
ES-33a	WWTP Lime Storage Silo	ARSENIC	1.92E-02		
		BERYLLIUM	1.55E-02		
		CADMIUM	7.91E-02		
		MANGANESE		7.00E-01	
		MERCURY		1.13E-04	
		NICKEL		7.40E-03	
ES-33b	WWTP Lime Storage Silo	ARSENIC	1.92E-02		
		BERYLLIUM	1.55E-02		
		CADMIUM	7.91E-02		
		MANGANESE		7.00E-01	

Permit Source ID Nos.	Source Description	Toxic Air Pollutant	Emissions Limit		
			lb/yr	lb/day	lb/hr
		MERCURY		1.13E-04	
		NICKEL		7.40E-03	
SILO-3	SILO3-5 Redundant Baghouse	ARSENIC	2.66E+00		
		BERYLLIUM	5.17E+00		
		CADMIUM	1.53E+00		
		CHROMIUM VI		9.83E-02	
		MANGANESE		4.92E+00	
		MERCURY		3.74E-02	
		NICKEL		9.51E-01	
ES-TS-1	DFA Handling System Baghouse	ARSENIC	3.47E-01		
		BERYLLIUM	6.76E-01		
		CADMIUM	2.00E-01		
		CHROMIUM VI		1.28E-02	
		MANGANESE		6.42E-01	
		MERCURY		4.89E-03	
		NICKEL		1.24E-01	
IES-70	Gypsum Radial Stacker	ARSENIC	5.56E-02		
		CADMIUM	2.76E-01		
		MANGANESE		3.54E+00	
		MERCURY		4.49E-03	
		NICKEL		1.47E-02	
IES-2, I-60	Truck Ash Dump at Ash Landfill	ARSENIC	1.58E-01		
		BERYLLIUM	3.07E-01		
		CADMIUM	9.09E-02		
		CHROMIUM VI		5.83E-03	
		MANGANESE		2.92E-01	
		MERCURY		2.22E-03	
		NICKEL		5.64E-02	
IES-1	Railcar Coal Unloading, Coal Drop into Bunker, Coal Drop onto Pile	ARSENIC	8.32E-01		
		BERYLLIUM	1.62E+00		
		CADMIUM	4.79E-01		
		MANGANESE		1.54E+00	
		MERCURY		1.17E-02	
		NICKEL		2.98E-01	
ES-8, ES-10, ES-11a, ES-19, ES-20, ES-21, ES-22	Limestone Pile Drop	ARSENIC	4.24E-01		
		BERYLLIUM	3.42E-01		
		CADMIUM	1.74E+00		
		MANGANESE		1.54E+01	
		MERCURY		2.50E-03	
		NICKEL		1.63E-01	
DFAL-4b	Dry Flyash Truck Loadouts	ARSENIC	1.23E+00		
		BERYLLIUM	2.39E+00		
		CADMIUM	7.06E-01		
		CHROMIUM VI		4.53E-02	
		MANGANESE		2.27E+00	
		MERCURY		1.73E-02	
		NICKEL		4.39E-01	
WFAL-3	Wet Flyash Truck Loadouts	ARSENIC	2.84E-02		
		BERYLLIUM	5.52E-02		
		CADMIUM	1.64E-02		
		CHROMIUM VI		1.05E-03	
		MANGANESE		5.25E-02	

Permit Source ID Nos.	Source Description	Toxic Air Pollutant	Emissions Limit		
			lb/yr	lb/day	lb/hr
		MERCURY		4.00E-04	
		NICKEL		1.02E-02	
WFAL-5	Wet Flyash Truck Loadouts	ARSENIC	2.84E-02		
		BERYLLIUM	5.52E-02		
		CADMIUM	1.64E-02		
		CHROMIUM VI		1.05E-03	
		MANGANESE		5.25E-02	
		MERCURY		4.00E-04	
		NICKEL		1.02E-02	
ABCL	Excavation of Ash Basin, Unloading of Relocated Ash at the Closure Landfill, Wind Erosion at the Ash Basin Active Area and Inactive Area, Wind Erosion at the Closure Landfill Active Area and Inactive Area	ARSENIC	9.23E+02		
		BERYLLIUM	1.80E+03		
		CADMIUM	5.32E+02		
		CHROMIUM VI		3.42E+01	
		MANGANESE		1.71E+03	
		MERCURY		1.30E+01	
		NICKEL		3.31E+02	
I-60	FGD Gypsum Landfill Drop, FGD (Gypsum) Landfill Active Area and Inactive Area	ARSENIC	3.61E+00		
		CADMIUM	1.79E+01		
		MANGANESE		2.30E+02	
		MERCURY		2.92E-01	
		NICKEL		9.55E-01	
I-60, IES-2	Active Ash Landfill and Inactive Ash Landfill	ARSENIC	6.90E+02		
		BERYLLIUM	1.34E+03		
		CADMIUM	3.98E+02		
		CHROMIUM VI		2.55E+01	
		MANGANESE		1.28E+03	
		MERCURY		9.72E+00	
		NICKEL		2.47E+02	
IES-1	Coal Storage Pile Active Area and Inactive Area	ARSENIC	3.42E+01		
		BERYLLIUM	6.65E+01		
		CADMIUM	1.97E+01		
		MANGANESE		6.32E+01	
		MERCURY		4.81E-01	
		NICKEL		1.22E+01	
F1	Limestone Pile Active Area and Inactive Area	ARSENIC	6.38E-01		
		BERYLLIUM	5.16E-01		
		CADMIUM	2.62E+00		
		MANGANESE		2.32E+01	
		MERCURY		3.76E-03	
		NICKEL		2.46E-01	
IES-73	Gypsum Pile Active Area and Inactive Area	ARSENIC	1.27E+00		
		CADMIUM	6.28E+00		
		MANGANESE		8.06E+01	
		MERCURY		1.02E-01	
		NICKEL		3.34E-01	
ES-PIGGING	Flare, Pig Receiver	ETHYL MERCAPTAN			1.02E+01
		n-HEXANE		9.68E+04	

b. The Permittee has submitted a toxic air pollutant dispersion modeling analysis dated February 15, 2021 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 April 13, 2021. 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.

Monitoring/Recordkeeping/Reporting

c. No monitoring, recordkeeping, or reporting shall apply to any emission sources included in Section 2.2 D.1.a above.

State-enforceable only

2. 15A NCAC 02Q .0711: EXISTING FACILITES AND SIC CALLS for TOXIC AIR POLLUTANT EMISSIONS LIMITATION REQUIREMENT

a. As of April 13, 2021 emissions of toxic air pollutants have been demonstrated on a facility-wide basis (excluding those sources exempt under 15A NCAC 02Q .0702 "Exemptions") that each of the toxic air pollutants (TAPs) emitted from all sources at the facility are either below its respective toxic permit emission rates (TPER) listed in 15A NCAC 02Q .0711 - "Emission Rates Requiring a Permit" or the TAPs are in compliance with 15A NCAC 02D .1100 "Control of Toxic Air Pollutants" as described elsewhere in this permit.

b. The facility shall be operated and maintained in such a manner that any new, existing or increased actual emissions of any 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 TPER listed in 15A NCAC 02Q .0711 without first obtaining an air permit to construct or operate.

c. 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 of 15A NCAC 02D .1100 "Control of Toxic Air Pollutants".

d. 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 rate listed in 15A NCAC 02Q .0711.

e. 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	TPERs Limitations			
	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
Benzo(a)pyrene	2.2			
Dichlorobenzene				16.8
Toluene		98.0		14.4

2.3 Permit Shield for Non-Applicable Requirements

This condition is to clarify that issuance of this permit provides no shield from the Act, or regulations promulgated thereunder, including state regulations, pertaining to requirements of the New Source Performance Standards or major or minor new source preconstruction review requirements, which EPA is currently alleging or may allege in the future as having been violated by the Permittee. The permit may be subject to reopening to include a compliance plan and schedule addressing any judicial or administrative order establishing new applicable requirements arising out of past or ongoing noncompliance with those provisions for any affected emission units.

The Permittee is shielded from the following non-applicable requirements as of the date of issuance of this permit based on information furnished with all previous applications. This shield does not apply to future modifications or changes in the method of operation. [15A NCAC 02Q .0512(a)(1)(B)]

A. The following requirements are not applicable to boilers ID Nos. ES-1 and ES-2; nor auxiliary boilers ID Nos. ES-3(AuxB1) and ES-4(AuxB2):

1. 15A NCAC 02D .0501(c)(11), testing for mercury emissions, is not applicable because 15A NCAC 02D .0537, A Control of Mercury Emissions, does not apply to fuel combustion.
2. 15A NCAC 02D .0501(c)(14), testing for sources for which emissions are based on process rates, is not applicable because emissions for these sources are not based on process rates.
3. 15A NCAC 02D .0521(d), visible emissions shall not exceed 20% opacity, is not applicable because these sources were manufactured as of July 1, 197l.
4. 15A NCAC 02D .0607, calibration and maintenance requirements do not apply as these sources do not combust wood and wood-fossil fuels.
5. 15A NCAC 02D .1110, NESHAP promulgated in 40 CFR Part 61, is not applicable because no Part 61 NESHAP evaluation has been triggered.
6. 15A NCAC 02D .0902(c), applicability of VOC rules to sources in non-attainment areas, is not applicable because there are no rules applicable to these sources in 02D .0900.
7. 15A NCAC 02D .0902(f)(1), exemptions from VOC rules in 15A NCAC 02D .0900, are not applicable because there are no rules applicable to these sources in 02D .0900.
8. 15A NCAC 02D .0903(b) and (c), recordkeeping on VOC emissions and control equipment, is not applicable because there are no rules applicable to these sources in 02D .0900.
9. 15A NCAC 02D .0903(d)(2), recordkeeping on VOC source compliance, is not applicable because there are no rules applicable to these sources in 02D .0900.
10. 15A NCAC 02D .0903(e), recordkeeping on VOC, is not applicable because there are not rules applicable to these sources in 02D .0900.
11. 15A NCAC 02D .0912(c), testing on VOC, is not applicable because there are no rules applicable to these sources in 02D .0900.
12. 15A NCAC 02D .0912(d), reporting on VOC and corrective actions, is not applicable because there are no rules applicable to these sources in 02D .0900.
13. 15A NCAC 02D .0912(e), testing on VOC, is not applicable because there are no rules applicable to these sources in 02D .0900.
14. 15A NCAC 02D .0939(a), testing for VOC for sources subject to 02D .0912, is not applicable because there are no rules applicable to these sources in 02D .0900.
15. 15A NCAC 02D .0939(b), testing for VOC for sources subject to 02D .0912, is not applicable because there are no rules applicable to these sources in 02D .0900.
16. 15A NCAC 02D .1400, NOX requirements for non-attainment counties, is not applicable because Stokes County is not a non-attainment area.
17. 15A NCAC 02Q .0508(p)(1), recordkeeping on alternative operating scenarios, is not applicable because there are no alternative operating scenarios.

B. The following requirements are not applicable to auxiliary boilers ID Nos. ES-3(AuxB1) and ES-4(AuxB2):

1. 15A NCAC 02D .0501(c)(7), compliance testing for nitrogen oxides, is not applicable because there are no nitrogen oxide requirements applicable to these sources.
2. 15A NCAC 02D .0501(c)(16), particulate testing for steam generators which do soot blowing shall determine the contribution of soot blowing, is not applicable to these sources as these sources do not soot blow.
3. 15A NCAC 02D .0519, nitrogen oxide emission limits, is not applicable because the auxiliary boilers are non-NSPS applicable boilers with a heat input rating of less than 250 million Btu per hour each.
4. 15A NCAC 02D .0535(d) and (e), malfunction abatement plan requirements and submittal, is not applicable because the plan is only required for electric utility boilers.
5. 15A NCAC 02D .0536, emission limits for particulate matter from utility boilers, is not applicable because these sources are not utility boilers.
6. 15A NCAC 02D .0606, monitoring of fossil-fired steam generators in accordance with Appendix P of 40 CFR Part 51, is not applicable because the auxiliary boilers have a heat input of less than 250 million Btu per hour each.
7. 15A NCAC 02D .0608, sulfur dioxide emissions from other coal or residual oil burners, is not applicable because these sources do not burn coal or residual oil.
8. 15A NCAC 02Q .0401, implementation of Phase II of the federal acid rain program pursuant to the requirements of Title IV of the Clean Air Act as provided in 40 CFR Part 72, is not applicable because these sources are not utility units.
9. 15A NCAC 02D .0524, NSPS promulgated in 40 CFR Part 60, is not applicable because these sources have not triggered NSPS requirements.

2.4 Phase II Acid Rain Permit Requirements

ORIS code: 8042

A. Statement of Basis

Statutory and Regulatory Authorities: In accordance with the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended and Titles IV and V of the Clean Air Act, the Division of Air Quality issues this permit pursuant to Title 15A North Carolina Administrative Codes, Subchapter 02Q .0400 and 02Q .0500, and other applicable Laws.

B. SO_2 Allowance Allocations and NO_x Requirements for Each Affected Unit

Boiler **ID No. ES-1**	SO_2 allowances, under Tables 2, 3, or 4 of 40 CFR Part 73.	Years 2010 and Beyond
		30,966*
	NO_X limit	Pursuant to 40 CFR 76.11, the Division of Air Quality approves a NO_X emissions averaging plan for this unit. Under the plan, the actual Btu-weighted annual average NO_X emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_X emission rate for the same units had they each been operated, during the same period of time, in compliance with the individual applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for the plan year, then this unit shall be deemed to be in compliance for the year with its alternative contemporaneous annual emission limitation and annual heat input limit. If the designated representative cannot make the above demonstration (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) for the plan year and if this unit fails to meet the annual average alternative contemporaneous emission limitation of **0.250 lb/MMBtu** or has an annual heat input greater than **26,834,070 MMBtu**, then excess emissions of nitrogen oxides occur during the year at this unit. A penalty for excess emissions will be assessed in accordance with 40 CFR 77.6. In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_X compliance plan and requirements covering excess emissions.

Boiler **ID No. ES-2**	SO_2 allowances, under Tables 2, 3, or 4 of 40 CFR Part 73.	Years 2010 and Beyond
		32,616*
	NO_X limit	Pursuant to 40 CFR 76.11, the Division of Air Quality approves a NO_X emissions averaging plan for this unit. Under the plan, the actual Btu-weighted annual average NO_X emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_X emission rate for the same units had they each been operated, during the same period of time, in compliance with the individual applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7, except that for any early election units, the applicable emission limitations shall be under 40 CFR 76.7. If the designated representative demonstrates that the requirement of the prior sentence (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for the plan year, then this unit shall be deemed to be in compliance for the year with its alternative contemporaneous annual emission limitation and annual heat input limit. If the designated representative cannot make the above demonstration (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) for the plan year and if this unit fails to meet the annual average alternative contemporaneous emission limitation of **0.250 lb/MMBtu** or has an annual heat input greater than **27,664,080 MMBtu**, then excess emissions of nitrogen oxides occur during the year at this unit. A penalty for excess emissions will be assessed in accordance with 40 CFR 77.6. In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_X compliance plan and requirements covering excess emissions.

*The number of allowances allocated to Phase II-affected units by U.S. EPA may change under 40 CFR Part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

C. Comments, Notes and Justifications

None.

D. Phase II Permit Application and Phase II NO_X Compliance Plan (attached)

The permit applications submitted for this facility, as approved by the Division of Air Quality, are part of this permit. The owners and operators of these Phase II acid rain sources must comply with the standard requirements and special provisions set forth in the following attached application:

Acid Rain Permit Application dated July 20, 2021
Phase II NOx Compliance Plan and Averaging Plan dated June 23, 2015

2.5 Section 112(r) of the Clean Air Act – Risk Management Plan

15A NCAC 02D .2100: RISK MANAGEMENT PROGRAM

a. The Permittee is subject to Section 112(r) of the Clean Air Act and shall comply with all applicable requirements in accordance with 40 CFR Part 68.

Recordkeeping/Reporting [15A NCAC 02D .2104]

b. The Permittee shall submit an update to the Risk Management Plan (RMP) to EPA pursuant to 40 CFR 68.150 no later than July 2017[2], or as specified in 40 CFR 68.10.
c. The Permittee shall revise and update the RMP submitted under 40 CFR 68.150 no later than July 2017 and at least every five years after that date or most recent update as required by 40 CFR 68.190(b)(2) through (b)(7), whichever is later.
d. When the Permittee submits the annual Compliance Certification required by General Condition P, the Permittee shall include a statement that the facility is in compliance with all requirements of 15A NCAC 02D .2100.

[2] At the time this Permit was issued, the Permittee most recently updated the Risk Management Plan in July 2012.

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

Emission Source ID No.	Emission Source Description[1,2]
IES-1	Coal pile and coal handling system - fugitive emissions. Includes coal pile, coal unloading operations, conveyors, crusher operations, feed systems, etc. Also includes fugitive emissions of propylene as a result of spraying coal-handling belts for freeze protection.
IES-2	Ash and ash handling system - fugitive emissions. Includes ash removal system, ash loading system, leaks in ash collection pipes and hopper system, emissions during maintenance, hopper cleaning, hauling of ash in trucks, truck loading operations, duct vacuum truck unloading, and associated operations.
IES-9	260,000 gallon above ground main fuel-oil storage tank for No. 2 diesel fuel, and associated unloading stations, contract awarded on tank prior to 6/11/73
IES-10	Four storage tanks in the tractor shed storing transmission fluid, hydraulic oil, and motor oil (total capacity of 1,750 gallons: three 500-gallon tanks; one 250-gallon tank)
IES-13	Fuel oil drain tank, 550 gallon capacity (Fuel Oil Return Tank)
IES-30	Four aboveground tanks for storage of boiler feed pump turbine lube-oil, 750 gallon capacity each (Bulk Lube Oil Storage)
IES-31	Lube oil drums, 300 gallon total, associated with ash handling operations
IES-39	Above-ground sulfur storage tank
IES-40	Above-ground sulfuric acid (H2SO4) storage tanks
IES-41	Non-stack emissions of ammonia
I-60	One dry ash landfill and one gypsum landfill.
IES-61	Six anhydrous ammonia storage tanks (60,000 gallons capacity, each)
IES-64	1,600 gallon above ground diesel fuel oil storage tank (Blackout Protection Startup Generator)
IES-65	190 gallon above ground diesel fuel oil storage tank (Blackout Protection Air Compressor)
IES-67	One 36 inches wide gypsum collection conveyor (ID No. IS-25 (GCB))
IES-68	Two 30 inches wide gypsum transfer conveyors (ID Nos. IS-27 (GCB1) and IS-28 (GCB2))
IES-69	One 30 inches wide gypsum disposal conveyor (ID No. IS-30 (GDC))
IES-70	One 30 inches wide gypsum radial stacker (ID No. IS-31 (GRS))
IES-73	Gypsum disposal piles
IES-74	Limestone belt reclaim calibration process (using front end loader)
I-75	One 75 gallon diesel fuel storage tank
I-76	One 500 gallon diesel fuel storage tank
I-80	Three solvent based parts washers
IES-84	One 550 gallon kerosene storage tank
IES-88	One 359 gallon diesel fuel oil storage tank for the emergency fire pump (IGEN-37(FP))
IES-89	One 100 gallon diesel fuel oil storage tank for the emergency use water pump (ES-23(EQWP))
IES-90	One 250 gallon propane storage tank for the 60 kW backup emergency propane generator (IGEN-EmGenLF)
IES-91	One permanent 550 gallon diesel fuel oil storage tank on-site used by contractors
IES-92	One 100 gallon propane storage tank for the backup emergency propane generator (IGEN-85EmGen)
IES-94 **MACT ZZZZ**	One 26 kW No. 2 fuel oil-fired emergency engine to act as backup power for the microwave tower and an associated 110-gallon fuel tank
IGEN-5(AC) **MACT ZZZZ**	One No. 2 fuel oil-fired emergency air compressor (525 horsepower)

Emission Source ID No.	Emission Source Description[1,2]
IGEN-34 **MACT ZZZZ, NSPS IIII**	One diesel-fired emergency-use engine (37.1 horsepower)
IGEN-35 **MACT ZZZZ, NSPS IIII**	One diesel-fired emergency-use engine (364 horsepower)
IGEN-37(FP) **MACT ZZZZ**	One diesel-fired emergency fire pump (440 horsepower, Model Jan. 2006)
IGEN-EmGenLF **NSPS JJJJ, MACT ZZZZ**	One 60 kW backup emergency propane generator, SI RICE (Model Year 2012)
IGEN-85EmGen **MACT ZZZZ**	One propane-fired standby emergency generator (54 horsepower, Model Year 2007)
IES-T01	One diesel fuel storage tank (2,000 gallon capacity)
IES-T02	One diesel fuel storage tank (1,000 gallon capacity)
IES-T03	One gasoline fuel storage tank (500 gallon capacity)
I-DF1	One diesel fuel dispensing facility (for IES-T01)
I-DF2	One diesel fuel dispensing facility (for IES-T02)
I-DF3	One gasoline fuel dispensing facility (for IES-T03)
IES-SodCarb	Sodium Carbonate addition to bottom ash tank
IES-SurfaceFlow **MACT ZZZZ, NSPS IIII**	Three 74 kW No. 2 fuel oil-fired surface flow bypass trash pump engines (99 horsepower)
IES-CCP Backup **MACT ZZZZ, NSPS IIII**	One diesel-fired CCP backup power engine (320 horsepower)
IES-95	One 500 gallon gasoline tank at the gasoline fueling station
IES-96	Gypsum landfill screener, stacker, and associated material handling
IES-97 **MACT ZZZZ, NSPS IIII**	Gypsum landfill screener engine (S190 Screener)
IES-98 **MACT ZZZZ, NSPS IIII**	Gypsum landfill stacker engine (TS4080 Stacker)
IES-99 **MACT ZZZZ, NSPS IIII**	Landfill Emergency Engine

[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 6.0, 01/07/2022)

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 Department of Environmental Quality upon request.

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

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]
Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and 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. **Emergency Provisions** [40 CFR 70.6(g)]

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

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
    a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
    b. the permitted facility was at the time being properly operated;

c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.

4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]
This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

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

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

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

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

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]
The Permittee shall submit to the DAQ and the EPA (Air 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.

Acid Rain Permit Application

(five pages)

Acid Rain Permit NOx Compliance and Averaging Plan

(six pages)