Air Quality
ENVIRONMENTAL QUALITY

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

SHEILA C. HOLMAN
Director

DRAFT

Mr. Paul B. Dueitt
General Manager II
Duke Energy Carolinas LLC
253 Plant Allen Road
Belmont, NC 28012

SUBJECT: Air Quality Permit No. 03757T41
Facility ID: 3600039
Duke Energy Carolinas LLC
Allen Steam Station
Belmont
Gaston County
Fee Class: Title V
PSD Class: Major

Dear Mr. Dueitt:

In accordance with your completed Air Quality Permit Applications for a 02Q .0501(d)(1) significant modification of a Title V permit received February 27, 2015, for a significant modification of a Title V permit received July 14, 2015, and for the second step of a 02Q .0501(c)(2) significant modification of a Title V permit received May 31, 2016, we are forwarding herewith Air Quality Permit No. 03757T41 to Duke Energy Carolinas LLC, Allen Steam Station, 253 Plant Allen Road, Belmont, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

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

Pursuant to 15A NCAC 02Q .0203 (e), the Permittee shall be assessed annually in addition to any otherwise applicable fee a non-attainment RACT fee effective April 1, 2008.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of

Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

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

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of GS 143-215-108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of GS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in GS 143-215.114A and 143-215.114B.

Gaston County has triggered increment tracking under PSD for PM-10, SO_2 and NOx. This permit modification will result in an increase in 2.11 pounds per hour of PM-10. This permit modification does not consume or expand increments for SO_2 or NOx.

This Air Quality Permit shall be effective from _____ and shall expire on the earlier of December 31, 2019 or when the renewal of Permit No. 03757T38 has been issued or denied, 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 Edward L. Martin, P.E., at (919) 707-8739.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDENR

Enclosure

cc: Heather Ceron, EPA Region 4
William T. Horton/Duke Power Company LLC/P.O. Box 1006, EC11E/Charlotte, NC 28201-1006
Mooresville Regional Office
Central Files

ATTACHMENT

Duke Energy Carolinas LLC
Allen Steam Station
Insignificant Activities under 15A NCAC 02Q .0503(8)

Emission Source I.D.	Emission Source Description	Regulatory Basis for Exemption
I-1	Coal pile and coal handling system - fugitive emissions. Includes coal pile, coal unloading operations, conveyors, crusher operations, feed systems, etc.	02Q .0503(8)
I-3	Ash and ash handling system - fugitive emissions. Includes ash removal system, ash loading system, leaks in ash collection pipes and hopper system, emission during maintenance, hauling of ash in trucks, duct vacuum truck unloading, and associated operations.	02Q .0503(8)
I-4	Non-stack emissions of hydrazine and ammonia from throughout the plant (blow down vents, overpressure vents, de-aerator vents, valve leakage, purge vents, etc.) Condensate and feed water systems have potential for fugitive emission of hydrazine and ammonia from boiler blow down of systems and steam jet air ejectors.	02Q .0503(8)
I-7	Gasoline and fuel oil pumps	02Q .0503(8)
I-8	Two welding shops, both vent directly to the outside atmosphere.	02Q .0503(8)
I-9	550 gallon above ground gasoline storage tank and associated unloading station, tank installed in 1998.	02Q .0503(8)
I-10	200 gallon above ground kerosene storage tank and associated unloading station, tank installed before 1973.	02Q .0503(8)
I-11	Sandblasting room, actual usage of room is much less than 8760 hours per year.	02Q .0503(8)
I-12	5,000 gallon above ground used oil storage tank and associated unloading station (tank installed in the late 1980's).	02Q .0503(8)
I-15	Two, turbine oil tanks for Units 1 & 2, 11000 gallons total capacity, and associated unloading station (tanks installed before 1973).	02Q .0503(8)
I-16	Three turbine oil tanks for Units 3, 4, & 5, 25500 gallons total capacity, and associated unloading station (tanks installed before 1973).	02Q .0503(8)
I-17	Turbine oil storage tank for maintenance of Units 1 & 2, 5250 gallons capacity, and associated unloading station (normally empty, tank installed before 1973).	02Q .0503(8)
I-18	Turbine oil storage tank for maintenance of Units 3 & 4, 8400 gallon capacity and associated unloading station (normally empty, tank installed before 1973).	02Q .0503(8)
I-19	Turbine oil storage tank for maintenance of Unit 5, 23750 gallon capacity, and associated unloading station (normally empty, tank installed before 1973).	02Q .0503(8)
I-20	Vapor extractors which vent gases off of turbine lube oil tanks, one on each unit	02Q .0503(8)
I-21	Engine and gear lube oil storage barrels in tractor shed, 4500 gallon total capacity	02Q .0503(8)
I-22	New oil storage area, 2000 gallon total storage capacity in barrels, variety of engine, lube, and cutting oils	02Q .0503(8)
I-23	Used oil barrels at used oil staging area and groundwater remediation area, 770 gallon total capacity	02Q .0503(8)
I-24	Satellite accumulation areas for storage of used oil in barrels	02Q .0503(8)
I-25	Transformers containing oil, 107,685 gallons total capacity	02Q .0503(8)
I-26	Four transformers for yard drain/coal yard sump pump, containing 1080 gallons of oil	02Q .0503(8)
I-27	Circuit breaker, 115 KvSY, containing 73,229 gallons of oil	02Q .0503(8)
I-29	Various equipment containing lubricating oil including: 5 boiler feed pumps, 500 gallons total	02Q .0503(8)

Emission Source I.D.	Emission Source Description	Regulatory Basis for Exemption
	13 hot well pumps, 104 gallons total 34 pulverizer mills, 3,890 gallons total 20 fans, 55 gallons total 10 CCW pumps, 550 gallons total 10 heater drain pumps, 150 gallons total	
I-30	Misc. oil trap tanks used for spill collection for oils in transformers and other yard drain locations	02Q .0503(8)
I-32	5,000 gallons capacity above ground sulfuric acid storage tank	02Q .0503(8)
I-33	250 gallon hydrazine storage tank and 75 gallon hydrazine mixing tank	02Q .0503(8)
I-34	250 gallon ammonium hydroxide storage tank and 125 gallon ammonia hydroxide mixing tank	02Q .0503(8)
I-35	Misc. cylinders containing SO_2, NOx, CO, CO_2, hydrogen, nitrogen, acetylene, argon, oxygen, helium, HeF, or any combination of these	02Q .0503(8)
I-36	Misc. CFC and HCFC refrigerant cylinders	02Q .0503(8)
I-37	Misc. non-CFC and HCFC refrigerant cylinders	02Q .0503(8)
I-38	Propane storage tanks for supplying fuel to microwave tower back up generator	02Q .0503(8)
I-39	Satellite accumulation areas for storage of wet paint and solvents	02Q .0503(8)
I-40	Satellite accumulation area for used antifreeze	02Q .0503(8)
I-41	Storage of new antifreeze in sealed containers	02Q .0503(8)
I-42	Containers of Oil-Dri resulting from cleanup of oil spills	02Q .0503(8)
I-43	Containers for collection of oil contaminated materials	02Q .0503(8)
I-45	Chiller systems used for cooling of control equipment	02Q .0503(8)
I-47	Continuous Emissions Monitoring Systems (CEM) Equipment, which potentially emit ozone, CO_2, SO_2, and other pollutants.	02Q .0503(8)
I-48	Sewage treatment plant	02Q .0503(8)
I-49	Sewer system vents located throughout the plant	02Q .0503(8)
I-50	Vents from groundwater monitoring wells for areas contaminated with diesel fuel, gasoline, etc.	02Q .0503(8)
I-51	Laboratory for performing analyses of plant operating conditions	02Q .0503(8)
I-52	Use and storage of small amounts of pesticide and herbicide for pest and weed control.	02Q .0503(8)
I-53	Application of paints, solvents, degreasers, etc.	02Q .0503(8)
I-55	600-1000 lbs elemental sulfur/year blended on coal pile (intermittently produced from occasional spillage, clogging, and leakage resulting from maintenance of SO3 injection system and storage). Only elemental sulfur generated on site may be burned.	02Q .0503(8)
I-56	82-kilowatt portable diesel-fired air compressor.	02Q .0503(8)
I-57	111,000 gallons capacity No. 2 fuel oil storage tank.	02Q .0503(8)
I-58	1600 gallon above ground diesel fuel oil storage tank.	02Q .0503(8)
I-59	Two 13.0 hp portable gasoline welders.	02Q .0503(8)
I-60	Three 14.0 hp portable gasoline generators.	02Q .0503(8)
I-62	Limestone belt scale calibration/emergency backup reclaim front end loader process	02Q .0503(8)
I-63	Gypsum storage piles	02Q .0503(8)
I-64	Gypsum belt scale calibration	02Q .0503(8)
I-65	Gypsum emergency loading	02Q .0503(8)

Emission Source I.D.	Emission Source Description	Regulatory Basis for Exemption
I-66	Gypsum collection conveyor transfer to stacker conveyor at transfer tower (120 ton per hour)	02Q .0503(8)
I-67	Gypsum stacker conveyor transfer to storage pile	02Q .0503(8)
I-69	515 gallon diesel storage tank	02Q .0503(8)
I-70	Wastewater treatment facility lime silo with fabric filter	02Q .0503(8)
I-71	Liquid urea storage tank No. 1; 23,264 gallons	02Q .0503(8)
I-72	Liquid urea storage tank No. 2; 23,264 gallons	02Q .0503(8)
I-73	Liquid urea storage tank No. 3; 23,264 gallons	02Q .0503(8)
I-75	Sulfuric acid tank; 5,000 gallons	02Q .0503(8)
I-76	Sulfuric acid tank; 8,500 gallons	02Q .0503(8)
I-77	Anhydrous ammonia tank; 9,500 lbs	02Q .0503(8)
I-80	30,000 gallon fuel oil storage tank for coal handling	02Q .0503(8)

ATTACHMENT

Duke Energy Carolinas LLC
Allen Steam Station

The following changes were made to the Duke Energy Carolinas LLC – Allen Steam Station Air Permit No. 03757T40:

Page No.	Section	Change
Cover	--	Amended permit numbers and dates.
--	Insignificant Activities List	Added I-80. Removed I-2, I-31, I-44, I-46, I-54, I-61, I-68, I-74, I-78, and I-79. Revised I-3, I-33, I-35, and I-76.
3-4	Section 1, table of permitted emission sources	Added MACT UUUUU designation for Units 1-5.
		Added halide salt mercury oxidation fuel additives to Units 1-5 (ES-1 through ES-5) emission source description.
		Removed old footnote 2 since a Title V Air Quality Permit Application (3600039.16C) for the air emission sources (ID Nos. ES-EmQP, ES-EmFP, and ES-EmGenMWT) was filed and included in this permit modification. Added new footnote 2 for incidental spills of oil, antifreeze, etc. Removed footnote † since the injection of powdered activated carbon (ID No. CD-U4/5ActC), emission source ID Nos. ES-U4/5ACISilo, and control device CD-U4/5ACISiloBf, originally permitted as a minor modification per 15A NCAC 02Q .0515, are now going through the Title V permitting process.
8	Section 2.1.A, equipment description	Added halide salt mercury oxidation fuel additives for Units 1-5 (ES-1 through ES-5).
8-11	Section 2.1.A, regulation table	Revised 02D .0521 limits for alternate PM CEMS monitoring option.
		Revised 02D .0536 PM limits for alternate PM CEMS monitoring option.
		Added 02D .0614 CAM (40 CFR 64) which was inadvertently omitted from previous permits and specified that it applies for periods when COMS are used.
		Added applicable regulation 15A NCAC 02D .1111 (40 CFR 63 Subpart UUUUU).
		Added 15A NCAC 02Q .0317 [PSD AVOIDANCE] for PM/PM10/PM2.5 in Section 2.1.A.12.
		Added 15A NCAC 02Q .0317 [PSD AVOIDANCE] for PM2.5 in Section 2.1.A.14.
		Added footnote * to table for alternate PM CEMS monitoring option.
13	Section 2.1.A.3	Revised 02D .0521 to add alternate PM CEMS monitoring option.
14-15	Section 2.1.A.4	Revised 02D .0536 and 02Q .0317(a)(1) to add alternate PM CEMS monitoring option.
14	Section 2.1.A.4.e	Revised to allow the use of MATS Method 5 to demonstrate compliance with the 02D .0536 stack test requirement.

15-17	Section 2.1.A.5	Revised language in Section 2.1.A.5.i. Revised state-only 02D .0536 to add alternate PM CEMS monitoring option.
17-18	Section 2.1.A.7	Revised 02D .0606 to add alternate PM CEMS monitoring option.
19	Section 2.1.A.11	Added language to indicate 02D .0614 applies only during periods when using the alternate COMS monitoring option.
22-28	Section 2.1.A.15	Added this section for the MACT Subpart UUUUU requirements.
28-29	Section 2.1.A.16	Added this PSD avoidance condition for emissions from applying halide salt mercury oxidation fuel additives.
46	Section 2.1.H, equipment description	For the Units 4 and 5 DSI ACI storage silo (ID No. ES-U4/5ACISilo) and associated Units 4 and 5 ACI storage silo bin vent filter baghouse (ID No. CD-U4/5ACISiloBf): Removed non-shielded statement since this equipment is now going through the Title V permitting process. Removed the state-only start-up notification requirement since notification has been made.
60-68	Section 3.0	Updated general conditions to version 4.0 12/17/15.

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

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
03757T41	NA		December 31, 2019*

* This permit shall expire on the earlier of December 31, 2019 or when the renewal of Permit No. 03757T38 has been issued or denied.

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** **Allen Steam Station**
Facility ID:	**3600039**
Facility Site Location:	**253 Plant Allen Road**
City, County, State, Zip:	**Belmont, Gaston County, North Carolina 28012**
Mailing Address:	**Mail Code EC11E, P. O. Box 1006**
City, State, Zip:	**Charlotte, NC 28201-1006**
Application Numbers:	**3600039.15A, 3600039.15D and 3600039.16C**
Complete Application Date:	**February 27, 2015 (.15A), July 14, 2015 (.15D) and May 31, 2016 (.16C)**
Primary SIC Code:	**4911**
Division of Air Quality, Regional Office Address:	**Mooresville Regional Office** **610 East Center Avenue** **Mooresville, NC 28115**

Permit issued this the __ day of _____, 2017.

_____
William D. Willets, P.E., Chief, Permitting Section
By Authority of the Environmental Management Commission

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ATTACHMENT
List of Acronyms
Acid Rain Permit Application dated June 10, 2011
Phase II NOx Compliance Plan dated June 24, 2011
Phase II NOx Averaging Plan dated December 19, 2011
CAIR Permit Application dated June 25, 2007

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

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

Page No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
8, 42, 44, 49	ES-1[1] (U1Boiler) **CAM MACT UUUUU**	Coal/No. 2 fuel oil[2]-fired electric utility boiler (1,980 million Btu per hour heat input capacity) equipped with a modified fuel burner system (low NOx concentric firing system), separated overfire air (SOFA), lowered fired (LOFIR) low NOx technologies, alkaline-based fuel additive**, and halide salt mercury oxidation fuel additives at a nominal rate not to exceed 15 gallons per hour see footnote *	CD-1b (U1-SNCR) CD-2 (U1ESP) CDU1/2/5 FGD	Selective non-catalytic reduction (SNCR) NOx control system, Cold-side electrostatic precipitator (280,477 square feet of plate area), and Flue Gas Desulfurization spray tower scrubber; 32 to 182 gallons per minute limestone slurry injection
8, 42, 45, 49	ES-2[1] (U2Boiler) **CAM MACT UUUUU**	Coal/No. 2 fuel oil[2]-fired electric utility boiler (1,980 million Btu per hour maximum heat input) equipped with a modified fuel burner system (low NOx concentric firing system), separated overfire air (SOFA) low-NOx control equipment, alkaline-based fuel additive**, and halide salt mercury oxidation fuel additives at a nominal rate not to exceed 15 gallons per hour see footnote *	CD-3b (U2SCNR) CD-4 (U2ESP) CDU1/2/5 FGD	Selective non-catalytic reduction (SNCR) NOx control system, Cold-side electrostatic precipitator (280,477 square feet of plate area, and Flue Gas Desulfurization spray tower scrubber; 32 to 182 gallons per minute limestone slurry injection
8, 42, 46, 49	ES-3[1] (U3Boiler) **CAM MACT UUUUU**	Coal/No. 2 fuel oil[2]-fired electric utility boiler (3,390 million Btu per hour heat input capacity) equipped with a modified fuel burner system (low NOx concentric firing system), separated overfire air (SOFA), lowered-fire (LOFIR) low-NOx equipment, alkaline-based fuel additive**, and halide salt mercury oxidation fuel additives at a nominal rate not to exceed 15 gallons per hour	CD-5b (U3SNCR) CD-6a (U3FGT) CD-6b (U3FGT) CD-7 (U3ESP) CDU3/4 FGD	Selective non-catalytic reduction (SNCR) NOx control system, **And flue gas conditioning systems:** - Ammonia injection ash conditioner (29 pounds per hour [20 parts per million maximum ammonia injection rate]) and - Sulfur trioxide injection ash conditioner (190 pounds per hour maximum injection rate), Cold-side electrostatic precipitator (336,960 square feet of plate area), and Flue Gas Desulfurization spray tower scrubber; 32 to 182 gallons per minute limestone slurry injection
		Note: The ammonia and sulfur trioxide ash conditioning and NOx systems may be operated independently of each other or in combination. Each system may be operated intermittently as necessary, based on the boiler system requirements, to maintain compliance with the applicable emission standards.		

Page No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
8, 42, 47, 49	ES-4[1] (U4Boiler) **CAM MACT UUUUU**	Coal/No. 2 fuel oil[2]-fired electric utility boiler (3,390 million Btu per hour heat input capacity) equipped with a modified fuel burner system (low NOx concentric firing system), separated overfire air (SOFA) low NOx equipment, alkaline-based fuel additive**, and halide salt mercury oxidation fuel additives at a nominal rate not to exceed 15 gallons per hour	CD-8b (U4SNCR) CD-9a (U4FGT) CD-9b (U4FGT) CD-U4/5ActC CD-9 (U4ESP) CDU3/4FGD	Selective non-catalytic reduction (SNCR) NOx control system, **And flue gas conditioning systems:** - Ammonia injection ash conditioner (29 pounds per hour [20 parts per million maximum ammonia injection rate]) and - Sulfur trioxide injection ash conditioner (190 pounds per hour maximum injection rate), System for injecting powdered activated carbon Cold-side electrostatic precipitator (336,960 square feet of plate area), and Flue Gas Desulfurization spray tower scrubber; 32 to 182 gallons per minute limestone slurry injection
		Note: The ammonia and sulfur trioxide ash conditioning and NOx systems may be operated independently of each other or in combination. Each system may be operated intermittently as necessary, based on the boiler system requirements, to maintain compliance with the applicable emission standards.		
8, 42, 48, 49	ES-5[1] (U5Boiler) **CAM MACT UUUUU**	Coal/No. 2 fuel oil[2]-fired electric utility boiler (3,390 million Btu per hour heat input capacity) equipped with a modified fuel burner system (low NOx concentric firing system), separated overfire air (SOFA), lowered fired (LOFIR) low-NOx equipment, alkaline-based fuel additive**, and halide salt mercury oxidation fuel additives at a nominal rate not to exceed 15 gallons per hour see footnote *	CD-10c (U5SNCR) CD-11a (U5FGT) CD-11b (U5FGT) CD-U4/5ActC CD-11 (U5ESP) CDU1/2/5 FGD	Selective non-catalytic reduction (SNCR) NOx control system, **And flue gas conditioning systems:** - Ammonia injection ash conditioner (29 pounds per hour [20 parts per million maximum ammonia injection rate]) and - Sulfur trioxide injection ash conditioner (190 pounds per hour maximum injection rate), System for injecting powdered activated carbon Cold-side electrostatic precipitator (336,960 square feet of plate area), and Flue Gas Desulfurization spray tower scrubber; 32 to 182 gallons per minute limestone slurry injection
		Note: The ammonia and sulfur trioxide ash conditioning and NOx systems may be operated independently of each other or in combination. Each system may be operated intermittently as necessary, based on the boiler system requirements, to maintain compliance with the applicable emission standards.		
Limestone Receiving, Storage, Transfer, and Grinding				
24, 27, 39	ES-8-1 (RUL)	Railcar transfer to dual hopper	CDRULBF	Railcar unloading enclosure dust collection system with fabric filter; 48,000 acfm, collection area 9,600 to 12,000 square feet (to be determined) **NSPS OOO**
24, 39	ES-8-2A (LUBF1) **NSPS OOO**	Dual hopper transfer to hopper conveyor No.1		

Page No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
24, 39	ES-8-2B (LUBF3) **NSPS OOO**	Dual hopper transfer to hopper conveyor No. 2		
24, 39	ES-8-3 (LUBF3) **NSPS OOO**	Hopper conveyors No.1 and No. 2 transfer to transfer tower stock pile conveyor		
24, 39	ES-9 (LUCB) **NSPS OOO**	Transfer tower stock pile conveyor transfer to stockpile stack out conveyor in transfer tower **(NSPS OOO)**	N/A	N/A
27	ES-10 (LSC)	Stock pile stack out conveyor to stock pile	N/A	N/A
27	ES-11A (LRGF)	Stock pile transfer to grate feed of stock pile reclaim conveyor	N/A	N/A
24, 39	ES-11B (LRCB) **NSPS OOO**	Grate feeder transfer to stock pile reclaim conveyor	N/A	N/A
24, 39	ES-12 (LFPCB) **NSPS OOO**	Stock pile reclaim conveyor transfer to preparation plant feed conveyor in transfer tower (**NSPS OOO**)	N/A	N/A
24, 39	ES-13 (LSFCB) **NSPS OOO**	Preparation plant feed conveyor with flop gate transfer to day bin No. 2 feed conveyor	CDLSBF	Preparation building dust collection system with fabric filter; 14,800 acfm, collection area 2,960 to 3,700 square feet (to be determined) **NSPS OOO**
24, 39	ES-14 (LS1) **NSPS OOO**	Preparation plant feed conveyor with flop gate transfer to day bin No. 1		
24, 39	ES-15 (LS2) **NSPS OOO**	Day bin No. 2 feed conveyor to day bin No. 2		
24, 39	ES-16 (LWFCB) **NSPS OOO**	Day bin No. 1 transfer to wet ball mill No. 1 in preparation building	N/A	N/A
24, 39	ES-17 (LCWFCB) **NSPS OOO**	Day bin No. 2 transfer to wet ball mill No. 2 in preparation building	N/A	N/A
24, 39	ES-18A (WBM1) **NSPS OOO**	Wet ball mill No. 1 and product classifier in preparation building	N/A	N/A
24, 39	ES-18B (WBM2) **NSPS OOO**	Wet ball mill No. 2 and product classifier in preparation building	N/A	N/A
Miscellaneous				
20, 42	ES-6 (AuxB)[1] **NSPS Dc, RACT, Case-By-Case MACT**	No. 2 fuel oil fired auxiliary utility boiler (14.6 million Btu per hour heat input capacity)	N/A	N/A
23	ES-7 (EmGen)[1] **MACT ZZZZ**	No. 2 fuel oil-fired emergency/blackout protection diesel generator (2000 kW)	N/A	N/A
30	ES-EmQP **NSPS IIII MACT ZZZZ**	Diesel-fired emergency quench pump (440 HP maximum engine power)	N/A	N/A
30	ES-EmFP **NSPS IIII MACT ZZZZ**	Diesel-fired emergency fire pump (288 HP maximum engine power)	N/A	N/A

Page No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
30	ES-EmGenMWT **NSPS JJJJ MACT ZZZZ**	Propane-fired emergency generator for microwave tower (23.6 HP maximum engine power)	N/A	N/A
41	WWTBR	Wastewater metals reduction bio-reactor	N/A	N/A
Dry Flyash System				
28	ES-FS1/2	Flyash transfer filter separator Units 1 and 2 (2,924.6 pounds per hour maximum process rate)	CD-U1/2FS	Unit 1 and 2 filter separator (baghouse) (853 square feet of filter area)
28	ES-FS1/2b	Flyash transfer filter separator Units 1 and 2 (redundant) (2,924.6 pounds per hour maximum process rate)	CD-U1/2FSa	Unit 1 and 2 filter separator (baghouse) (redundant) (853 square feet of filter area)
28	ES-FS3	Flyash transfer filter separator Unit 3 (2,924.6 pounds per hour maximum process rate)	CD-U3FS	Unit 3 filter separator (baghouse) (853 square feet of filter area)
28	ES-FS3b	Flyash transfer filter separator Unit 3 (redundant) (2,924.6 pounds per hour maximum process rate)	CD-U3FSb	Unit 3 filter separator (baghouse) (redundant) (853 square feet of filter area)
28	ES-FS4	Flyash transfer filter separator Unit 4 (2,924.6 pounds per hour maximum process rate)	CD-U4FS	Unit 4 filter separator (baghouse) (853 square feet of filter area)
28	ES-FS4b	Flyash transfer filter separator Unit 4 (redundant) (2,924.6 pounds per hour maximum process rate)	CD-U4FSb	Unit 4 filter separator (baghouse) (redundant) (853 square feet of filter area)
28	ES-FS5	Flyash transfer filter separator Unit 5 (2,924.6 pounds per hour maximum process rate)	CD-U5FS	Unit 5 filter separator (baghouse) (853 square feet of filter area)
28	ES-FS5b	Flyash transfer filter separator Unit 5 (redundant) (2,924.6 pounds per hour maximum process rate)	CD-U5FSb	Unit 5 filter separator (baghouse) (redundant) (853 square feet of filter area)
28	ES-AS1	Ash silo #1 (92,743 cubic feet capacity)	CD-S1Bf	Bin vent filter Ash silo #1 (8398 square feet of filter area)
28	ES-FTLD1	Flyash truck loading equipment (dry) from silo #1 (102.7 tons per hour maximum process rate)		
28	ES-AS2	Ash silo #2 (92,743 cubic feet capacity)	CD-S2Bf	Bin vent filter Ash silo #2 (8398 square feet of filter area)
28	ES-FTLD2	Flyash truck loading equipment (dry) from silo #2 (102.7 tons per hour maximum process rate)		
28	ES-FTLW1	Flyash truck loading equipment (wet) from silo #1 (102.7 tons per hour maximum process rate)	N/A	N/A
28	ES-FTLW2	Flyash truck loading equipment (wet) from silo #2 (102.7 tons per hour maximum process rate)	N/A	N/A
28	Fugitive 1	Truck transport	N/A	N/A
28	Fugitive 2	Truck unloading	N/A	N/A
28	Fugitive 3	Dry ash landfill management	N/A	N/A

Page No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
37	ES-U4/5ACISilo	Units 4 and 5 DSI ACI storage silo (6000 cubic feet capacity)	CD-U4/5ACISilo Bf	Units 4 and 5 ACI storage silo bin vent filter baghouse (259 square feet of filter area)

* Emissions will discharge from the common flue at the exit of the Flue Gas Desulfurization (FGD) system for Units 1, 2, and 5 (CDU1/2/5FGD) during normal operation. Emissions will discharge from the bypass stack (the existing Unit 1 stack prior) during periods of startup on oil or periods of malfunction of the FGD system or the boiler air and gas handling system.

** Alkaline-based fuel additive 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. Fuel additive products not equivalent to those specified in Application 3600039.13B are not allowed without permit modification. The use of alkaline-based fuel additive is listed as a minor modification per 15A NCAC 02Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected terms of this permit (excluding the permit shield as described General Condition R) for this source shall become final on June 6, 2014. Until this date, the affected permit terms herein reflect the proposed operating language that the Permittee shall operate this source under pursuant to 15A NCAC 02Q .0515(f).

[1] These emissions sources are subject to VOC RACT as potential emissions were determined to exceed 100 tons per year. Application 3600039.08A addressed the applicability of RACT as per 02D .0951. This case-by-case demonstration concluded that these sources already employ control equivalent to or better than RACT except for the auxiliary boiler listed as ES-6(AuxB). RACT for this source is listed under Section 2.1.B.

NOTE: The Metrolina area is currently classified as Moderate; the criterion for the application of RACT is 100 tons per year of potential emissions. The facility has completed the NOx and VOC RACT review as per permit number 03757T34.

[2] Incidental spills of oil, antifreeze, etc. that might get on the coal from mobile equipment is allowed to be burned in these boilers.

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. Five Coal/No. 2 Fuel Oil-fired Electric Utility Boilers:

Flue Gas Desulfurization spray tower scrubber (ID No. CDU1/2/5FGD) on:

Boiler (ID No. ES-1) with a low NOx concentric firing system, separated over-fire air, lowered-fire low NOx technologies, alkaline-based fuel additive, and halide salt mercury oxidation fuel additive; and associated selective non-catalytic NOx reduction system (ID No. CD 1b), and a cold-side electrostatic precipitator (ID No. CD-2); and

Boiler (ID No. ES-2) with low NOx concentric firing system, separated over-fire air, alkaline-based fuel additive, and halide salt mercury oxidation fuel additive; and associated selective non-catalytic NOx reduction system (ID No. CD 3b) and cold-side electrostatic precipitator (ID No. CD-4); and

Boiler (ID No. ES-5) with a low NOx concentric firing system, separated over-fire air, lowered-fire low NOx technologies, alkaline-based fuel additive, and halide salt mercury oxidation fuel additive; and associated selective non-catalytic NOx reduction system (ID No. CD 10c), cold-side electrostatic precipitator (ID No. CD-11), and flue gas conditioning systems consisting of an ammonia injection ash conditioner (ID No. CD-11a), a sulfur trioxide injection ash conditioner (ID No. CD-11b), and powdered activated carbon system (ID No. CD-U4/5ActC)[1].

Flue Gas Desulfurization spray tower scrubber (ID No. CDU3/4FGD) on:

Boiler (ID No. ES-3) with a low NOx concentric firing system, separated over-fire air, lowered-fire low NOx technologies, alkaline-based fuel additive, and halide salt mercury oxidation fuel additive; and associated selective non-catalytic NOx reduction system (CD-5b), cold-side electrostatic precipitator (ID No. CD-7 (U3ESP)), and flue gas conditioning systems consisting of an ammonia injection ash conditioner (ID No. CD-6a) and a sulfur trioxide injection ash conditioner (ID No. CD6b); and

Boiler (ID No. ES-4) with a low NOx concentric firing system, separated over-fire air, alkaline-based fuel additive, and halide salt mercury oxidation fuel additive; and associated selective non-catalytic NOx reduction system (CD-8b), cold-side electrostatic precipitator (ID No. CD-9), and flue gas conditioning systems consisting of an ammonia injection ash conditioner (ID No. CD-9a), a sulfur trioxide injection ash conditioner (ID No. CD-9b), and powdered activated carbon system (ID No. CD-U4/5ActC)[1].

1 NOTIFICATION REQUIREMENT - This permit may be revoked unless the emission source(s) and associated air pollution control device(s) listed in Section 1 are constructed in accordance with the approved plans, specifications, and other supporting data. Within 15 days after start up of the new or modified facilities, the Permittee shall provide written notice of the start up to the Regional Supervisor, DAQ.

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	**Applies to Units 1,2 and 5 equipped with an FGD system and emitting through a common stack;** **And applies to Units 3 and 4 equipped with an FGD system and emitting through a common stack** 1.0 pounds per million Btu heat input	15A NCAC 02D .0501(c)
	Phase II Acid Rain Permit Requirements (see Section 2.4)	15A NCAC 02Q .0402 (40 CFR Part 72)
	Clean Air Interstate Rule (CAIR) Permit Requirements (See Section 2.5)	15A NCAC 02D .2404
Nitrogen Oxides	**When burning only coal** 1.8 pounds per million Btu heat input	15A NCAC 02D .0519
	When burning only oil 0.8 pounds per million Btu heat input	
	When burning coal and oil E = [(Ec)(Qc) + (Eo)(Qo)]/Qt Where: E = emission limit 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 oil Qc = coal heat input in Btu per hour Qo = oil heat input in Btu per hour Qt = Qc + Qo	
	Phase II Acid Rain Permit Requirements (see Section 2.3)	15A NCAC 02Q .0402 (40 CFR Part 72)
	Clean Air Interstate Rule (CAIR) Permit Requirements (See Section 2.5)	15A NCAC 02D .2403 and .2405

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible Emissions	**For periods when the compliance option under Section 2.1.A.3.a.i [COMS] is used:** 40 percent opacity when averaged over a six-minute period except that: (i) no more than four six-minute periods shall exceed the opacity standard in any one day; and (ii) the percent of excess emissions (defined as the percentage of monitored operating time in a calendar quarter above the opacity limit) shall not exceed 0.8 percent of the total operating hours. If a source operates less than 500 hours during a calendar quarter, the percent of excess emissions shall be calculated by including hours operated immediately previous to this quarter until 500 operational hours are obtained. Excess emissions during startup and shutdown shall be excluded from the determinations in paragraphs (i) and (ii) above, if the excess emissions are exempted according to the procedures set out in 02D .0535(g). Excess emissions during malfunctions shall be excluded from the determinations in paragraphs (i) and (ii) above, if the excess emissions are exempted according to the procedures set out in 02D .0535(c) **For periods when the compliance option under Section 2.1.A.3.a.ii [PM CEMS] is used:** 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*
Visible Emissions	**State-only requirements** Unit 1 Boiler - 20 percent annual average opacity Unit 2 Boiler - 20 percent annual average opacity Unit 3 Boiler - 13 percent annual average opacity Unit 4 Boiler - 14 percent annual average opacity Unit 5 Boiler - 17 percent annual average opacity	15A NCAC 02D .0536*
Particulate Matter	Unit 1and 2 Boilers **As determined by stack test:** 0.25 pounds per million Btu heat input	15A NCAC 02D .0536*
	Unit 3, 4 and 5 Boilers **As determined by stack test:** 0.20 pounds per million Btu heat input	15A NCAC 02Q .0317(a)(1) PSD avoidance
	As determined by PM CEMS: Units 1-5 boilers 0.030 pounds per million Btu heat input (or 0.30 pounds per MWh)	15A NCAC 02D .0536*
	Unit 1- 5 Boilers **For periods when the compliance option under Section 2.1.A.3.a.i [COMS] is used:** Monitoring for ESP control device -- See Section 2.1.A.11	15A NCAC 02D .0614 CAM (40 CFR 64)
Malfunction Abatement Plan	As defined in specific conditions	15A NCAC 02D .0535
Toxic Air Pollutants	As defined in specific conditions	15A NCAC 02D .1100
	State-only requirement Total Arsenic Emissions See Section 2.1.A.12 and Section 2.2.B (Facility-wide)	15A NCAC 02Q .0309
Excess Emissions/Good Operations and Maintenance	As defined in specific conditions	15A NCAC 02D .0606*

Regulated Pollutant	Limits/Standards	Applicable Regulation
Practices		
HAPs	Varies - See Section 2.1.A.15	15A NCAC 02D .1111 (40 CFR 63 Subpart UUUUU)
PM/PM10/PM2.5	See Section 2.1.A.12	15A NCAC 02Q .0317 [PSD AVOIDANCE]
PM2.5	See Section 2.1.A.14	15A NCAC 02Q .0317 [PSD AVOIDANCE]

* Rules 15A NCAC 02D .0521, 02D .0536 and 02D .0606 have two mutually exclusive options for monitoring, recordkeeping and reporting using either COMS or PM CEMS as defined in specific conditions.

1. 15A NCAC 02D .0501: 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. [15A NCAC 02D .0501(c)]

b. Emissions of sulfur dioxide from the boilers (ID Nos. ES-1/ES-2/ES-5 and ES-3/ES-4) shall not exceed **1.0 pounds per million Btu heat input**, upon operation, in accordance with the permit application and modeling analyses received April 12, 2006. 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 02D .0501(c) and 02D .0608]

i. **Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]
The Permittee shall assure compliance with 15A NCAC 02D .0501(c) by determining sulfur dioxide 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 whenever the unit combusts any fuel). 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 24 shall divide the sum. 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 1.0 pounds per million Btu heat input or records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(c).

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

ii. 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 no later than 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.

CEM Availability

iii. 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, no later than 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.

c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A.1.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

a. Emissions of nitrogen oxides from these sources when burning coal and/or oil shall be calculated by the following equation [15A NCAC 02D .0519]:

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

Where:

E = emission limit for combined burning of coal and oil 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 oil
Qc = coal heat input in Btu per hour
Qo = oil 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.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0519.

c. **Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]
The Permittee shall assure 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 whenever the unit combusts any fuel). 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 24 shall divide the sum. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75.
For monitoring purposes, the following emission limits will apply:
i. When only coal is burned, the emission limit shall be **1.8 pounds per million Btu heat input.**
ii. When only oil is burned, the emission limit shall be **0.8 pounds per million Btu heat input.**
iii. When oil is burned other than for startup, the emission limit shall be **1.1 pounds per million Btu heat input.** At no time shall more than 70 percent of total heat result from the combustion of fuel oil.
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 oil 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 NCAC 02D .0519 if these records are not maintained.

e. **Reporting** [15A NCAC 02Q .0508(f)]
The Permittee shall submit the continuous emissions monitoring system data showing the 24-hour daily block values for periods of **excess nitrogen oxide emissions** no later than 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. **CEM's Monitor 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, no later than 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.

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

a. The Permittee shall either:
   i. install, maintain, and operate a COMS for measuring the opacity of emissions, or
   ii. install, maintain, and operate a PM CEMS.
   The Permittee shall submit a written notification to the NCDAQ of intent to demonstrate compliance using the option under Section 2.1.A.3.a.i [COMS] or Section 2.1.A.3.a.ii [PM CEMS] at least 30 calendar days before changing the compliance monitoring option.
b. **For periods when the compliance option under Section 2.1.A.3.a.i [COMS] is used,** compliance with the **40 percent opacity** limit shall be determined as follows: [15A NCAC 02D .0521(g)]
   i. No more than four six-minute periods shall exceed the opacity standard in any one day; and
   ii. The percent of excess emissions (defined as the percentage of monitored operating time in a calendar quarter above the opacity limit) shall not exceed 0.8 percent of the total operating hours. If a source operates less than 500 hours during a calendar quarter, the percent of excess emissions shall be calculated by including hours operated immediately previous to this quarter until 500 operational hours are obtained.

   Excess emissions during startup and shutdown shall be excluded from the determinations in paragraphs b.i and b.ii above, if the excess emissions are exempted according to the procedures set out in 02D .0535(g). Excess emissions during malfunctions shall be excluded from the determinations in paragraphs b.i and b.ii above, if the excess emissions are exempted according to the procedures set out in 02D .0535(c).

   All periods of excess emissions shall be included in the determinations in paragraphs b.i and b.ii above until such time that the excess emissions are exempted according to the procedures in 02D .0535.
c. **For periods when the compliance option under Section 2.1.A.3.a.ii [PM CEMS] is used,** 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 02D .2601]

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

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

e. **For periods when the compliance option under Section 2.1.A.3.a.i [COMS] is used,** opacity shall be measured using an opacity monitoring system that meets the performance specifications of Appendix B of 40 CFR Part 60. The opacity monitoring system shall be subjected to a quality assurance program approved by the director. The Permittee, for each unit subject to 02D .0521(g) shall have on file with the director an approved quality assurance program, and shall submit to the director within the time period of his request for his approval a revised quality assurance program, including at least procedures and frequencies for calibration, standards traceability, operational checks, maintenance, auditing, data validation, and a schedule for implementing the quality assurance program. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if the monitoring is not performed, if the monitored values exceed the limitations given above, or if the records are not maintained.
f. **For periods when the compliance option under Section 2.1.A.3.a.ii [PM CEMS] is used,** no opacity monitoring is required.

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

g. **For periods when the compliance option under Section 2.1.A.3.a.i [COMS] is used,** the Permittee shall submit excess emissions and monitoring system performance reports for the COMS data in accordance with the reporting requirements given in Section 2.1 A.7.d no later than 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 report shall include, at a minimum, the information required in 40 CFR 60.7(c) and shall include all six-minute periods of excess emissions including all six-minute periods exempted during startup, shutdown and malfunction.
h. **For periods when the compliance option under Section 2.1.A.3.a.ii [PM CEMS] is used**, no opacity reporting is required.
i. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .0536: PARTICULATE EMISSIONS FROM ELECTRIC UTILITY BOILERS AND 15A NCAC 02Q .0317(a)(1): AVOIDANCE CONDITION for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION BY POLLUTION CONTROL PROJECT DETERMINATION

a. Particulate emissions from the utility boilers shall not exceed the following: [15A NCAC 02D .0536(b)]
Unit 1 Boiler - **0.25 pounds per million Btu heat input**
Unit 2 Boiler - **0.25 pounds per million Btu heat input**

b. Particulate emissions from the utility boilers shall not exceed the following: [15A NCAC 02Q .0317(a)(1)]
Unit 3 Boiler - **0.20 pounds per million Btu heat input**
Unit 4 Boiler - **0.20 pounds per million Btu heat input**
Unit 5 Boiler - **0.20 pounds per million Btu heat input**

c. The Permittee shall obtain an air permit before installing or enabling Energy Management System (EMS) capability.

Testing [15A NCAC 02D .2601]

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.A.4.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0536. If the results of this test are above the more restrictive limits given in Section 2.1.A.4.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

e. A stack test shall be conducted for particulate matter in accordance with either Method 5 at a sample temperature of 320° ± 25° F as described in §63.10010(i)(1) or Method 5B of Appendix A of 40 CFR Part 60 once per calendar year. In the event that a boiler exceeds 80 percent of its particulate emission limit during the stack test, the Permittee shall schedule and conduct another stack test within 6 months. Upon demonstration that the source is operating under 80 percent of its particulate limit, as shown by three consecutive semiannual stack tests, the source may resume annual stack tests. If the result of any test is greater than the limits given in Section 2.1.A.4.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0536. If the result of any test is greater than the more restrictive limits given in Section 2.1.A.4.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

f. **For periods when the compliance option under Section 2.1.A.3.a.i [COMS] is used,** compliance with the particulate limit in Section 2.1.A.4.a or b shall be demonstrated through the Compliance Assurance Monitoring (CAM) Plan given in Section 2.1.A.10. The Permittee shall ensure the continuous opacity monitor system (COMS) utilized in the CAM Plan meets the requirements of 15A NCAC 02D .0613. If the result of any stack test is greater than the limit given in Section 2.1.A.4.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0536. If the result of any stack test is greater than the more restrictive limit given in Section 2.1.A.4.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

g. **For periods when the compliance option under Section 2.1.A.3.a.ii [PM CEMS] is used**, compliance with the particulate limit in Section 2.1.A.4.a or b shall be demonstrated using the PM CEMS. A measured exceedance of the pounds per million Btu heat input values below shall be a violation of the corresponding emission standards in Section 2.1.A.4.a or b.

Units 1/2/5 Boilers as combined stack CS1 - 0.030 pounds per million Btu heat input (30-boiler operating day rolling average) or 0.30 pounds per MWh (30-boiler operating day rolling average)
Units 3/4 Boilers as combined stack CS2 - 0.030 pounds per million Btu heat input (30-boiler operating day rolling average) or 0.30 pounds per MWh (30-boiler operating day rolling average)

i. The Permittee shall install, certify, operate, and maintain a PM CEMS and record the output of the PM CEMS according to the applicable Maximum Achievable Control Technology (MACT) standards in §63.10010(i) of 40 CFR Part 63 Subpart UUUUU, as specified in Section 2.1.A.15.dd. The PM CEMS shall meet the requirements of Performance Specification PS-11 of Appendix B of 40 CFR Part 60. The Permittee shall have on file with the director an approved quality assurance program, and shall submit to the director within the time period of his request for his approval a revised quality assurance program to include the provisions of 40 CFR 60, Appendix F, Procedure 2 for the PM CEMS.

ii. The PM emission rate shall be determined based on a 30-boiler operating day rolling average of the hourly arithmetic average emissions concentrations using the CEMS outlet data for each boiler operating day (as defined below),

except for data obtained during periods of startup or shutdown. Periods of malfunction shall be included in the emissions calculations.

A *boiler operating day* means a 24-hour period that begins at midnight and ends the following midnight during which any fuel is combusted at any time in the EGU, excluding startup periods or shutdown periods. It is not necessary for the fuel to be combusted the entire 24-hour period.

iii. Data from the PM CEMS shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of 40 CFR Part 63 are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in §63.2. [§63.8(g)(2)]
iv. PM CEMS monitor availability shall be calculated and reported.
v. The Permittee shall record the output of the PM CEMS as specified in Section 2.1.A.15.ff.

If the results of the arithmetic 30-boiler operating day rolling average PM CEMS concentration exceeds the limit in this section or any of the above requirements are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0536.

h. The collected flyash shall not be injected into Unit 1 through Unit 5 boilers. If the collected flyash is reinjected, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0536 or 15A NCAC 02D .0530.

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

i. **For periods when the compliance option under Section 2.1.A.3.a.i [COMS] is used,** the Permittee shall submit the results of all monitoring performed in Section 2.1.A.4.f above within 30 days of a written request by the DAQ.
j. **For periods when the compliance option under Section 2.1.A.3.a.ii [PM CEMS] is used,** the Permittee shall submit excess emissions and monitoring system performance reports for PM in accordance with the reporting requirements given in Section 2.1.A.7.d no later than 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.15.tt, along with all 30-boiler operating day rolling average excess emissions (pounds per million Btu or pounds per MWh) using the CEMS outlet data, including periods exempted during periods of startup and shutdown.
k. The results of any stack test shall be reported within 30 days, and the test report shall be submitted within 60 days after the test.
l. All instances of excess emissions must be clearly identified.

State-Only Requirement

5. 15A NCAC 02D .0536: ANNUAL AVERAGE OPACITY FOR ELECTRIC UTILITY BOILERS

a. Visible emissions from the utility boiler units shall not exceed the following: [15A NCAC 02D .0536(b)]

Unit 1 Boiler - **20 percent annual average opacity**
Unit 2 Boiler - **20 percent annual average opacity**
Unit 3 Boiler - **13 percent annual average opacity**
Unit 4 Boiler - **14 percent annual average opacity**
Unit 5 Boiler - **17 percent annual average opacity**

The average is the sum of the measured non-overlapping six-minute averages of opacity determined only while the unit is in operation divided by the number of such measured non-overlapping six-minute averages. Start-up, shut-down, and non-operating time shall not be included in the annual average opacity calculation, but malfunction time shall be included.

i. Visible emissions monitoring when using the COMS or PM CEMS compliance options shall not be required whenever the FGD systems for the combined stack units (CDU1/2/5FGD, CDU3/4FGD) (and main stack COMS or PM CEMS) are bypassed and emissions exit the bypass (original) stacks. Bypass periods exempted from visible emission monitoring are restricted to malfunction events arising from a sudden failure of the scrubber system or boiler air and flue gas handling systems. Periods where there was no visible emission monitoring shall be included in percentage of monitor downtime (MD) calculation in Section 2.1.A.7.a for the COMS compliance option or

Section 2.1.A.7.b for the PM CEMS compliance option.

b. **For periods when the compliance option under Section 2.1.A.3.a.i [COMS] is used,** the Permittee shall calculate each day an annual average opacity value for the most recent 365-day period ending with the end of the previous day. The average is the sum of the measured non-overlapping six-minute averages of opacity determined only while the unit is in operation divided by the number of such measured non-overlapping six-minute averages. Start-up, shut-down, and non-operating time shall not be included in the annual average opacity calculation, but malfunction time shall be included.

c. **For periods when the compliance option under Section 2.1.A.3.a.ii [PM CEMS] is used,** the Permittee shall calculate each day an annual average opacity value for the most recent 365-day period ending with the end of the previous day. The average is the sum of the measured non-overlapping one-hour averages of opacity determined only while the unit is in operation divided by the number of such measured non-overlapping one-hour averages. Start-up, shut-down, and non-operating time shall not be included in the annual average opacity calculation, but malfunction time shall be included. The hourly opacity values shall be determined using the PM CEMS hourly average output values as follows:

$$\text{Opacity, average for each hour} = \frac{(\text{Actual PM CEMS Output, average for each hour})(\text{Z, Opacity})}{(\text{Y, mg/m}^3)}$$

where: Y = The average PM CEMS output value (mg/m^3) established during the initial PM CEMS PS-11 certification procedure at or near, but no greater than, the AAO limit. A concurrent Method 9 test shall be conducted during the PM CEMS measurements to determine opacity. At least 60 minutes of PM CEMS and Method 9 data shall be averaged.

Z = The average concurrent Method 9 opacity readings obtained during the initial PM CEMS PS-11 certification procedure corresponding to the PM CEMS measurements for Y above.

The ratio of Z/Y has been determined from the initial CEMS certification testing to be as follows:

Units 1/2/5 Boilers as combined stack CS01 - 0.24 % opacity/mg/m^3
Units 3/4 Boilers as combined stack CS02 - 0.15 % opacity/mg/m^3

d. **For periods of less than 365 days of operation using either option under Section 2.1.A.3.a.i [COMS] or Section 2.1.A.3.a.ii [PM CEMS],** the AAO shall be calculated as follows:

$$\text{AAO} = \frac{\sum_{i=1}^{Z}(\text{6 minute COMS block i}) + \left(\sum_{j=1}^{Y}(\text{1 hour PM CEMS block j})(\text{10 six} - \text{minute blocks/1 hour block})\right)}{Z + 10Y}$$

where: Z = number of six-minute COM blocks of data within 365-day look-back period.
Y = number of one-hour PM CEMS blocks of data within 365-day look-back period.

Notes: The 1 hour PM CEMS block in the AAO equation above is its equivalent 1-hour block opacity as determined from the opacity equation in Section 2.1.A.5.c above. Variables Y and Z have different meanings in the two equations as defined above.

Alternatively, the Permittee may calculate the AAO using valid certified 1 hour PM CEMS blocks of data for the entire 365-day look-back period in the above equation for both the period when using PM CEMS for compliance with the AAO standard (after the 30-day notification) and for the period when using COMS for compliance with the AAO standard (instead of 6 minute COMS blocks).

Recordkeeping/Reporting [15A NCAC 02D .0536]

e. **For periods when the compliance option under Section 2.1.A.3.a.i [COMS] is used,** the Permittee shall submit a report by the 30th day following the end of each month showing, for each day of the previous month, the calculated annual average opacity of each unit and the annual average opacity limit.

f. **For periods when the compliance option under Section 2.1.A.3.a.ii [PM CEMS] is used,** the Permittee shall submit a report showing the calculated annual average opacity of each unit and the annual average opacity limit for each day

during the reporting period no later than 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.

6. 15A NCAC 02D .0535: EXCESS EMISSIONS REPORTING AND MALFUNCTIONS

a. All electric utility boiler units shall have a malfunction abatement plan approved by the Director as specified in 15A NCAC 02D .0535(d). [15A NCAC 02D .0535]

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

b. The Permittee shall maintain logs to show that the operation and maintenance parts of the malfunction abatement plan are implemented. These logs (written or electronic form) shall be subject to inspection by DAQ personnel upon request during business hours.

c. The Permittee shall be deemed in noncompliance with 02D .0535 if the above records are not maintained.

7. 15A NCAC 02D .0606: SOURCES COVERED BY APPENDIX P OF 40 CFR PART 51 (CONTINUOUS OPACITY MONITORING, CONTINUOUS EMISSIONS MONITORING FOR SO_2, AND EXCESS EMISSIONS)

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

a. **For periods when the compliance option under Section 2.1.A.3.a.i [COMS] is used,** the Permittee shall use a continuous opacity monitoring system (COMS) to monitor and record opacity. Continuous emissions monitoring and recordkeeping of opacity 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.

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 electrostatic precipitators. These sources shall be deemed to be properly operated and maintained if the percentage of time the opacity emissions, calculated on a 6-minute average, in excess of 40 percent (including startups, shutdowns, and malfunctions) does not exceed 3.0 percent of the total operating time for any given calendar quarter, adjusted for monitor downtime (MD) as calculated below. In addition, these sources shall be deemed to be properly operated and maintained if the %MD does not exceed 2.0 percent for any given calendar quarter as calculated below.

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 for COMS:

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

* Total Excess Emission Time contains any 6-minute period greater than 40% opacity 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.

*** If a source operates less than 2200 hours during any quarter, the source may calculate the %EE and/or %MD using all operating data for the current quarter and the preceding quarters until 2200 hours of data are obtained. [N.C.G.S. 143-215.110]

b. **For periods when the compliance option under Section 2.1.A.3.a.ii [PM CEMS] is used,** the Permittee shall use a PM CEMS as described in Section 2.1.A.4.f to monitor and record PM emissions.

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 the concentration that corresponds to 0.03 pounds per million Btu heat input (21.5 mg/m^3 for Units 1, 2 and 5 Boilers as CS 01 and 21.5 mg/m^3 for Unit 3 and 4 Boilers as CS02) do not exceed 3.0 percent of the total operating time for any given calendar quarter, adjusted for monitor downtime (MD) as calculated in Section 2.1.A.7.a above, except that Total Excess Emission Time contains all one-hour periods greater than the concentration that corresponds to 0.03 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 in Section 2.1.A.7.a above.

c. The Permittee shall use a continuous emissions monitoring system (CEMS) to monitor and record sulfur dioxide emissions. 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 1.0 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.7.a above.

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

d. The Permittee shall submit the excess emissions and monitor downtime reports as required under Appendix P of 40 CFR Part 51 no later than 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. **For periods when the compliance option under Section 2.1.A.3.a.i [COMS] is used,** periods of excess emissions are defined as each six-minute period average greater than 40 percent opacity, the opacity measurements recorded by the COMS shall be reported as described in Paragraphs 4 and 5.1 of Appendix P of 40 CFR Part 51 except that a six-minute time period shall be deemed as an appropriate alternative opacity averaging period as described in Paragraph 4.2 of Appendix P of 40 CFR Part 51. A minimum of 36 data points, equally spaced, is required to determine a valid six-minute value.
   ii. **For periods when the compliance option under Section 2.1.A.3.a.ii [PM CEMS] is used,** excess PM emissions are defined as any one-hour average greater than the concentration that corresponds to 0.03 pounds per million Btu heat input (21.5 mg/m^3 for CS1 (Units 1/2/5) and 21.5 mg/m^3 for CS2 (Units 3/4)). 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 the concentration that corresponds to 0.03 pounds per million Btu.
   iii. Monitor downtime includes periods where there was no visible emission (COMS) or particulate (PM CEMS) monitoring during monitor bypass as described in Section 2.1.5.a.i.
   iv. For sulfur dioxide, excess emissions are defined as greater than 0.56 pounds per million Btu calculated on a 24-hour block average basis.
   v. All instances of deviations from the requirements of this permit must be clearly identified.

State-Only Requirement

8. 15A NCAC 02D .1100 TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REPORTING REQUIREMENTS

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:

Emission Sources	Toxic Air Pollutants	Emission Limits
Boiler Units 3, 4 and 5 (ES-3, ES-4 and ES-5)	Sulfuric Acid	418.8 lb/hr and 10,051.2 lb/day
Boiler Unit 3	Ammonia	22.4 lb/hr
Boiler Unit 4	Ammonia	22.4 lb/hr
Boiler Unit 5	Ammonia	22.4 lb/hr

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

b. To ensure compliance with the above limits, the following restrictions shall apply:
   i. Sulfur trioxide and anhydrous ammonia injection ash conditioning systems are limited to Unit Nos. 3, 4, and 5.
   ii. Operation of the ammonia and sulfur trioxide injection ash conditioning systems shall be operated as follows:
      (A) The maximum system anhydrous ammonia flue gas injection rate is 29 pounds per hour (20 parts per million [ppm]) each for Units Nos. 3, 4, and 5).
      (B) The maximum sulfur trioxide flue gas injection rate shall not exceed 190 pounds per hour each for Units Nos. 3, 4, and 5.
      (C) The ammonia and sulfur trioxide injection ash conditioning systems may be operated independently or in combination with the other system and one or both may be operated intermittently based on boiler system requirements necessary to maintain compliance with applicable emissions regulatory requirements.

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

c. No reporting is required.

STATE-ONLY REQUIREMENT:

9. 15A NCAC 02D .2500: MERCURY RULES FOR ELECTRIC GENERATORS

a. The Permittee shall comply with all applicable requirements of 15A NCAC 02D .2511(a) through (f) "Mercury Emission Limits".

10. Reserved

11. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING

*** Applies only during periods when the compliance option under Section 2.1.A.3.a.i [COMS] is used**

a. The five coal/No. 2 fuel oil-fired electric utility boilers (Unit I.D.'s ES-1, ES-2, ES-3, ES-4, and ES-5) shall comply with all applicable requirements of 15A NCAC 02D .0614 "Compliance Assurance Monitoring".

b. The Electrostatic Precipitators shall be properly operated and maintained to control PM emissions from each Boiler (Unit I.D.'s ES-1, ES-2, ES-3, ES-4, and ES-5)

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

c. The Permittee shall comply with the monitoring approach as included in the following Table:

A. Indicator Measurement Approach	Opacity Use of 40 CFR 75 certified COMS connected to a data logger
B. Indicator Range	An excursion is defined as an opacity value (based on a 3-hour block average) greater than: **19 Percent – Unit 1** **20 Percent – Unit 2** **18 Percent – Unit 3** **19 Percent – Unit 4** **17 Percent – Unit 5** Excluding periods of startup, shutdown, malfunction, off-line activities, and maintenance (e.g. soot blowing). Excursions trigger an inspection of the control system and corrective action If five (5) percent or greater of COMS data (averaged over a three-hour block period and excluding startup, shutdown, and malfunction periods) recorded in a calendar quarter show opacity values higher than those listed above, a stack test shall be performed in the following calendar quarter to demonstrate compliance with the particulate standard. If the stack test exceeds 80 percent of the PM limit then retesting shall be conducted in accordance with 2.1.A.5.e. If a unit operates less than 2200 hours during any calendar quarter, the facility may evaluate three-hour opacity values using operating data from the current and preceding quarters until 2200 hours of data are obtained. If no changes are being made to the most recently approved protocol as submitted in the latest annual particulate test it is not necessary for the facility to submit testing protocol 45 days prior to the scheduled test date as specified in General Condition JJ. Instead, the facility shall notify the Mooresville Regional Office by email, fax, or letter, within fifteen (15) business days of making the determination that stack testing is required. The most recently approved protocol and the anticipated date of testing shall be included with that communication. The facility shall conduct testing no less than fifteen calendar (15) days from the date of this notification.
C. Performance Criteria	
1. Data Representativeness	The COMS location meets the specifications of 40 CFR Part 75 and 40 CFR 60, Appendix B.
2. Verification of Operational Status	Not applicable, use of monitoring equipment is proposed.
3. QA/QC Practices and Criteria	COMS are self-calibrated every 24 hours. Performance evaluations and calibration checks are carried out per 40 CFR 60, Appendix F. Documentation of performance evaluations, calibration checks, and maintenance logs are kept for a minimum of 5 years.
4. Monitoring Frequency	Continuous
5. Data Averaging Period	3-hour block average of 6-minute averages starting at midnight each day. (Total of eight 3-hour block periods)
6. Data Collection	Automated data acquisition system (DAHS). Real-time opacity values will be displayed to control room operators and alarms will be given to the operators when limits are exceeded.

d. For any excursion, the Permittee shall initiate an inspection of the control equipment and/or the COMS and initiate the necessary repairs as identified by the Malfunction Abatement Plan. In addition to implementing procedures outlined in the malfunction abatement plan, as required in Section 2.1 A.7, the following corrective actions shall be taken as soon as practical:
   i. The following operating practices and procedures shall be initiated:
      1. Identify cause of excursion
      2. Isolate ESP field or increase power input to other fields if necessary
      3. Proceed to shutdown or confirm malfunction conditions exist if emissions cannot be controlled appropriately
      4. Initiate work order for ESP inspection and repair as needed
      5. Improve preventative maintenance procedures
   iv. Nature and cause of excursion shall be documented in operations log.
   v. Provide notification to DAQ as necessary.

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

e. The results of any stack test shall be reported within 30 days, and the test report shall be submitted within 60 days after the test.

f. The Permittee shall submit the quarterly reports as required under §64.9 of 40 CFR Part 64 no later than 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 following information shall be included:
   i. The date, time, and duration of each excursion
   ii. Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken
   iii. The percent of operating time the PSEU has excursions
   iv. Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable)

g. If the monitoring, recordkeeping, and reporting requirements listed above as part of Section 2.1.A.10 are not met then the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0614.

All instances of deviations from the requirements of this permit must be clearly identified.

State-Only Requirement:

12. 15A NCAC 02Q .0309: TERMINATION, MODIFICATION, AND REVOCATION OF PERMITS for AVOIDANCE OF 15A NCAC 02Q .0705 APPLICABILITY

a. Pursuant to 15A NCAC 02Q .0309 and in accordance with the approved application for compliance with air toxics requirements, the following permit limit shall not be exceeded:

Emission Sources	Toxic Air Pollutants	Emission Limits
All Unit Boilers (ES-1, ES-2, ES-3, ES-4, and ES-5)	Arsenic	0.6395 tons per year total

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.12.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0705.

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

c. No monitoring, recordkeeping, or reporting requirements shall be necessary.

13. Reserved

14. 15A NCAC 02Q .0317 AVOIDANCE CONDITIONS FOR PREVENTION OF SIGNIFICANT DETERIORATION

THIS CONDITION IS NOT SHIELDED PURSUANT TO 15A NCAC 02Q .0512(a).

a. In order to avoid applicability of 15A NCAC 02D .0530(g), PM/PM10/PM2.5 emissions from the Unit 4 and 5 boilers (ID Nos. ES-4 and ES-5) shall be less than 10 tons per consecutive 12-month period attributable to injecting powdered activated carbon.

Testing [15A NCAC 02D .2601]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1.A.12.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

c. The amount of injected powdered activated carbon in the Unit 4 and 5 boilers (ID Nos. ES-4 and ES-5) shall not exceed 12,000,000 lbs per year. The Permittee shall keep monthly records of the amount of powered activated carbon injected. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the amount of powdered activated carbon injected in the Unit 4 and 5 boilers (ID Nos. ES-4 and ES-5) is not monitored or the amount of powdered activated carbon injected exceeds 12,000,000 lbs per year.

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 following:
   i. The monthly amount of powdered activated carbon injected in the Unit 4 and 5 boilers 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.

15. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (40 CFR PART 63 SUBPART UUUUU)

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 1.2E0 lb/TBtu or 1.3E-2 lb/GWh.
[§63.9991(a)(1) and Table 2 to Subpart UUUUU]

c. As an alternative to meeting the requirements of §63.9991(a)(1) for filterable PM, SO_2, HF, HCl, non-Hg HAP metals, or Hg on an EGU-specific basis as described in paragraph a above, the Permittee may choose to demonstrate compliance by using emissions averaging as described in §63.10009(a)(2) among existing EGUs in the same subcategory. If this option is selected for mercury, the Permittee shall limit the concentration of mercury to 1.0 lb/TBtu or 1.1E-2 lb/GWh. [§63.9991(a)(1), §63.10009 and §63.10022]

d. 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 §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 CMS during startup, except during periods of bypass of the main stack as provided in §63.10010(a)(4). For startup of a unit, clean fuels must be used as defined in §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.
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 §63.10020(a) and (e). The Permittee shall keep records during startup periods, as provided in §§63.10032 and 63.10021(h). The Permittee shall provide reports concerning activities and startup periods, as specified in §63.10011(g) and §63.10021(h) and (i). All periods of bypass of the main stack shall be reported as deviations as provided in §63.10010(a)(4)(ii).
[§63.9991(a)(1) and Table 3 to Subpart UUUUU]

e. 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, except during periods of bypass of the main stack as provided in §63.10010(a)(4). 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 as provided for bypass of the main stack in §63.10010(a)(4). 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. All periods of bypass of the main stack shall be reported as deviations as provided in §63.10010(a)(4)(ii).
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 §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 §63.10020(a). The Permittee shall keep records during shutdown periods, as provided in §§63.10032 and 63.10021(h). The Permittee shall provide reports concerning activities and shutdown periods, as specified in §§63.10011(g), 63.10021(i), and 63.10031.

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

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

f. The Permittee shall comply with the General Provisions as applicable pursuant to Table 9 to Subpart UUUUU. [§63.10040]
g. 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. [§63.10000(a)]
h. 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. [§63.10000(b)]
i. For coal-fired units, initial performance testing is required for all pollutants for the affected EGUs to demonstrate compliance with the applicable emission limits. [§63.10000(c)(1)]
j. 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). [§63.10000(c)(1)(iv)]
k. 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. [§63.10000(c)(1)(v)]
l. 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. [§63.10000(c)(1)(vi)]
m. As part of demonstration of continuous compliance, the Permittee shall perform periodic tune-ups of the affected EGUs, according to §63.10021(e). [§63.10000(e)]
n. On or before the date an EGU is subject to Subpart UUUUU, 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. [§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.13.f through n above are not met.

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

o. The Permittee shall monitor and collect data according to §63.10020. [§63.10020(a)]
p. 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 §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. [§63.10020(b)]
q. 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. [§63.10020(d)]
r 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 §63.10021(a). [§63.10021(a)]
s. Except as otherwise provided in §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.

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

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.

[§63.10021(b)]

t. Conduct periodic performance tune-ups of the EGUs, as specified in paragraphs (e)(1) through (9) of §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 §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. [§63.10021(e)]

u. 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 §63.10011(g). [§§63.10005(j), 63.10011(g) and §63.10021(h)]

v If the Permittee elects to average emissions consistent with §63.10009 for any constituent, following the compliance date, the Permittee must demonstrate compliance on a continuous basis by meeting the requirements of paragraphs (a)(1) through (4) of §63.10022. Any instance where the Permittee fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (3) of §63.10022 is a deviation. [§63.10022]

w. 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. [§§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.13.o through w above are not met.

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

x. 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. [§63.10010(a)(1)]

y. 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. [§63.10010(b)]

z. 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. [§63.10010(c)]

aa. 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 §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. [§63.10010(d)]

bb. 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 §63.10010. [§63.10010(f)]

cc. 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 §63.10010(g). [§63.10010(g)]

dd. 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 (5) of §63.10010 (shown below). The compliance limit shall be expressed as a 30-boiler operating day rolling average of the applicable numerical emissions limit value in Table 2 to Subpart UUUUU. [§63.10010(i)]

i. Install and certify the PM CEMS according to the procedures and requirements in Performance Specification 11—Specifications and Test Procedures for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix B to 40 CFR Part 60, using Method 5 at Appendix A-3 to 40 CFR Part 60 and ensuring that the front half filter temperature shall be 160° ±14 °C (320° ±25 °F). The reportable measurement output from the PM CEMS must be expressed in units of the applicable emissions limit (e.g., lb/MMBtu, lb/MWh).

ii. Operate and maintain the PM CEMS according to the procedures and requirements in Procedure 2—Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix F to 40 CFR Part 60.
   (A) Conduct the relative response audit (RRA) for the PM CEMS at least once annually (once per 12 month period).
   (B) Conduct the relative correlation audit (RCA) for the PM CEMS at least once every 3 (calendar) years.

iii. Collect PM CEMS hourly average output data for all boiler operating hours except as indicated in §63.10010(i).

iv. Calculate the arithmetic 30-boiler operating day rolling average of all of the hourly average PM CEMS output data collected during all nonexempt boiler operating hours.

v. Collect data using the PM CEMS at all times the process unit is operating and at the intervals specified in §63.10010(a), except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.
   (A) Use all the data collected during all boiler operating hours in assessing the compliance with the operating limit except:
      (I) Any data collected during periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or quality control activities that temporarily interrupt the measurement of emissions (e.g., calibrations, certain audits). Report any monitoring system malfunctions or out of control periods in the annual deviation reports. Report any monitoring system quality assurance or quality control activities per the requirements of §63.10031(b);
      (II) Any data collected during periods when the monitoring system is out of control as specified in the site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality control activities conducted during out-of-control periods. Report any such periods in the annual deviation report;
      (III) Any data recorded during periods of startup or shutdown.
   (B) Record and make available upon request results of PM CEMS system performance audits, dates and duration of periods when the PM CEMS is out of control to completion of the corrective actions necessary to return the PM CEMS to operation consistent with 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.13.x through dd above are not met.

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

ee. 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 §63.10(b)(2)(xiv).

iii. Records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in §63.10(b)(2)(viii). [§63.10032(a)]

ff. For each CEMS, the Permittee shall keep records as follows:

i. Records described in §63.10(b)(2)(vi) through (xi).
ii. Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).
iii. Request for alternatives to relative accuracy test for CEMS as required in §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. [§63.10032(b)]

gg. 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. [§63.10032(d)(1)]

hh. If the Permittee elects to average emissions consistent with §63.10009 for any constituent, the Permittee must additionally keep a copy of the emissions averaging implementation plan required in §63.10009(f) and(j), all calculations required under §63.10009, including daily records of heat input or steam generation, as applicable, and monitoring records consistent with §63.10022. [§63.10032(e)]

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

jj. 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. [§63.10032(g)]

kk. The Permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with §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. [§63.10032(h)]

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

mm. The Permittee shall keep records in a form suitable and readily available for expeditious review, according to §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. [§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.13.ee through mm above are not met.

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

nn. The Permittee shall submit the reports required under §63.10031 and, if applicable, the reports required under appendices A and B to the Subpart. The electronic reports required by appendices A and B to the Subpart shall be sent to the Administrator electronically in a format prescribed by the Administrator, as provided in §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 §63.10031. [§63.10021(f)]

oo. 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 §63.10031. [§63.10021(g)]

pp. The Permittee shall submit all of the notifications in §§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 [§63.9(i)(2)]. [§63.10030(a)]

qq. 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. [§63.10030(d)]

rr. 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. [§63.10031(a)]

ss. 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. [§63.10031(b)]

tt. The compliance report shall contain the following:
i. The information required by the summary report located in 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. 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. 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 §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 must also 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 §63.10(e)(3)(v) in the compliance report specified in §63.10031(c). [§63.10031(c) and §63.10031(d)]

uu. 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. [§63.10031(e)]

vv. On or after April 16, 2017, 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 §63.10031(f). [§63.10031(f)]

ww. 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. [§63.10031(g)]

16. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for
15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. In order to avoid applicability of 15A NCAC 02D .0530(g), the PM2.5 emissions from these sources (ID Nos. ES-1 through ES-5) shall be less than 10 tons per consecutive 12-month period, attributable to applying halide salt mercury oxidation fuel additives (or other equivalent fuel additives) to the incoming coal. All particulate matter (PM) emissions are assumed to be $PM_{2.5}$.

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

b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A.16.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

c. Calculations of PM2.5 emissions from applying halide salt mercury oxidation fuel additives to the incoming coal in these sources (ID Nos. ES-1 through ES-5) shall be made and recorded in a logbook (written or electronic format) at the end of each month when the additives have been used. The PM2.5 emissions from applying halide salts shall be equivalent to the amount of halide salts applied to the coal. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the $PM_{2.5}$ emissions from applying halide salts are not monitored and recorded or if the PM2.5 emissions exceed the limit in Section 2.1.A.16.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. Semi-annual reports shall only be required when operating the halide salt injection system during any semi-annual period pursuant to General Condition LL. The report shall contain the following:

i. The monthly $PM_{2.5}$ emissions due to the injection of halide salts with the incoming coal in these sources, for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

B. No. 2 fuel oil-fired auxiliary boiler (ID No. ES-6 (AuxB))

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	0.09 pounds per million Btu heat input	15A NCAC 02D .0503
Sulfur Dioxide	0.5 weight percent sulfur content fuel oil	15A NCAC 02D .0524 (40 CFR Part 60 Subpart Dc)
Visible Emissions	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 opacity if (i) no six-minute period exceeds 87 percent opacity, (ii) no more than one six-minute period exceeds 20 percent opacity in any hour, and (iii) no more than four six-minute periods exceed 20 percent opacity in any 24-hour period.	15A NCAC 02D .0521
Nitrogen Oxides	Annual Boiler Tune-up requirement	15A NCAC 02D .1407
N/A	Recordkeeping only; monthly fuel records	15A NCAC 02D .0524 (40 CFR Part 60 Subpart Dc)
Hazardous Air Pollutants	Best Combustion Practices	15A NCAC 02D .1109

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

a. Emissions of particulate matter from the combustion of fuel oil or propane that are discharged from this source into the atmosphere shall not exceed **0.09 pounds per million Btu heat input**. [15A NCAC 02D .0503 (a)]

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 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 visible emissions from these sources to assure compliance with this regulation.

2. 15A NCAC 02D .0524: NSPS 40 CFR PART 60 SUBPART Dc

a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc, including Subpart A "General Provisions." [15A NCAC 02D .0524]

b. The maximum sulfur content of any fuel oil received and burned in the auxiliary boiler (ID No. ES-6, AuxB) shall not exceed 0.5 percent by weight. [15A NCAC 02D .0524]

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

c. In addition to any other recordkeeping required by 40 CFR § 60.48c or recordkeeping requirements of the EPA, the Permittee shall record and maintain monthly records of the amounts of each fuel fired during each month. Records must be maintained for a minimum of two years. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

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

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

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

a. Visible emissions from this source (ID No. ES-6, AuxB) 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. [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.

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

c. To assure compliance, the Permittee shall perform a Method 9 test for 1 hour using a preapproved protocol to be submitted in accordance with General Condition JJ before the source operates more than 1100 hours using No. 2 fuel oil. This monitoring procedure shall be repeated before each subsequent 1100 hours of operation using No. 2 fuel oil from the last test.

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.

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

e. The Permittee shall submit the results of the Method 9 test as a part of quarterly report described in 2.1A.8.c. above within 30 days of completion of the test or at the end of the quarter. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .1407 BOILERS AND INDIRECT PROCESS HEATERS

a. Facilities with boilers with maximum heat input rate of less than or equal to 50 million Btu per hour shall comply with the annual tune-up requirements of 02D .1414. The Permittee shall maintain records of all tune-ups performed for each source according to 02D .1404 [15A NCAC 02D .1407]
   i. Compliance was achieved through a demonstration to certify compliance without source modification [15 NCAC 02D .1403(c)(1)(C)]

Testing [15A NCAC 02D. 2601]

b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 02D. 2601 and General Condition JJ.

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

c. To assure compliance the Permittee shall conduct annual boiler tune-ups, any required recordkeeping and reporting requirements on or by December 31st of each calendar year. Boiler tune-ups shall be in accordance with the manufacturer's recommendations including the following [15A NCAC 02D .1414(b):
   i. Inspect each burner and clean or replace any component of the burner as required;
   ii. Inspect the flame pattern and make any adjustments to the burner, or burners, necessary to optimize the flame pattern to minimize total emissions of NOx and carbon monoxide;
   iii. Inspect the combustion control system to ensure proper operation and correct calibration of components that control the

air to fuel ratio and adjust components to meet the manufacturer's established operating parameters; and

iv. Inspect any other component of the boilers and make adjustments or repairs as necessary to improve combustion efficiency. The Permittee shall perform the tune-up according to a unit specific protocol approved by the Director. The Director (or designee) shall approve the protocol if it meets the requirements of this Rule. The protocol shall be submitted to the Regional Office for approval.

If boiler tune-ups and inspections are not conducted (as per Section 2.1.4.c.i. through iv above) the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .1407.

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

d. The owner or operator shall maintain records of tune-ups performed to comply with Rule .1404. The following information shall be included for each source:
   i. Identification of the source;
   ii. The date and time the tune-up started and ended;
   iii. The person responsible for performing the tune-up; and
   iv. For boilers the checklist for inspection of the burner, flame pattern, combustion control system, and all other components of the boiler identified in the protocol, noting any repairs or replacements made;
   v. Any stack gas analyses performed after the completion of all adjustments to show that the operating parameters of the boiler, have been optimized with respect to fuel consumption and output; at a minimum these parameters shall be within the range established by the equipment manufacturer to ensure that the emission limitation for nitrogen oxides has not been exceeded; and
   vi. Any other information requested by the Director (or designee) to show that the boiler is being operated and maintained in a manner to minimize the emissions of nitrogen oxides.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1407 if these records are not maintained.

e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date and time of each recorded action;
   ii. The results of each annual tune-up and inspection along with any corrective actions taken; and
   iii. The results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1407 if these records are not maintained.

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

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

5. 15A NCAC 02D .1109: Case-by-Case MACT

a. The Permittee shall use best combustion practices when operating the affected boiler (ID No. ES-6, AuxB). The initial compliance date for this work practice standard and the associated monitoring, recordkeeping, and reporting requirements is **February 7, 2014**. These conditions need not be included on the annual compliance certification until after the initial compliance date.

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

b. To assure compliance, the Permittee shall perform an annual boiler inspection and maintenance as recommended by the manufacturer, or as a minimum, the inspection and maintenance requirement shall include the following:
   i. Inspect the burner, and clean or replace any components of the burner as necessary;
   ii. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern; and,
   iii. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly.

   Each annual inspection shall be conducted within 12 months of the prior inspection. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1109 if the affected boilers are not inspected and maintained as required above.

c. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date of each recorded action;
   ii. The results of each inspection; and,
   iii. The results of any maintenance performed on the boilers.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1109 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]
d. No reporting is required.

C. Emergency/blackout protection diesel generator (ID No. ES-7 (EmGen))

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	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 opacity if (i) no six-minute period exceeds 87 percent opacity, (ii) no more than one six-minute period exceeds 20 percent opacity in any hour, and (iii) no more than four six-minute periods exceed 20 percent opacity in any 24-hour period.	15A NCAC 02D .0521
HAPS	Notification Requirement only	15A NCAC 02D .1111 40 CFR 63 Subpart ZZZZ

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

a. Emissions of sulfur dioxide from this source 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 02D .0516]
b. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of No. 2 fuel oil in this source.

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

a. Visible emissions from this source 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. [15A NCAC 02D .0521(d)]

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

Monitoring [15A NCAC 02Q .0508(f)]
c. To assure compliance, the Permittee shall perform a Method 9 test for 1 hour using a preapproved protocol to be submitted in accordance with General Condition JJ before the sources operate more than 1100 hours using No. 2 fuel oil. This monitoring protocol shall be repeated before each subsequent 1100 hours of operation using No. 2 fuel oil from the last test for each source.

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.

Reporting [15A NCAC 02Q .0508(f)]
e. The Permittee shall submit the results of the Method 9 test as a part of the quarterly report described in Section 2.1 A.8.c above. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT – 40 CFR PART 63 SUBPART ZZZZ)

a. **Notification and Recordkeeping** [15A NCAC 02Q .0508(f)]
The Permittee has met the initial notification requirements of §63.6645(d). This notification was submitted not later than 120 days after the source becomes subject to Subpart ZZZZ and included an applicability determination statement that the source has no additional requirements under this subpart and explain the basis of the exclusion. The Permittee shall comply with the recordkeeping requirements of 40 CFR 63.10(b)(3) and keep a record of the applicability determination on site at the source for a period of 5 years after the determination. This source is exempt from the General Provisions (40 CFR Part 60, Subpart A) and from any other provisions of Subpart ZZZZ.

D. Limestone, Receiving, Storage, Transfer, and Grinding

Railcar unloading enclosure dust collection system with fabric filter (ID No. CDRULBF) installed on:
- Railcar transfer to dual hopper (ID No. ES-8-1) not subject to NSPS OOO notification or opacity requirements,
- Hopper No. 1 transfer to hopper conveyor No.1 (ID No. ES-8-2A),
- Hopper No. 2 transfer to hopper conveyor No. 2 (ID No. ES-8-2B), and
- Hopper conveyors No.1 and No. 2 transfer-to-transfer tower stockpile conveyor (ID No. ES-8-3).

Transfer tower stockpile conveyor transfer to stockpile stack out conveyor in transfer tower (ID No. ES-9).
Grate feeder transfer to stock pile reclaim conveyor (ID No. ES-11B).
Stockpile reclaim conveyor transfer to preparation plant feed conveyor in transfer tower (ID No. ES-12).
Preparation building dust collection system with fabric filter (ID No. CDLSBF) installed on:
- Preparation plant feed conveyor with flop gate transfer to day bin No. 2 feed conveyor (ID No. ES-13),
- Preparation plant feed conveyor with flop gate transfer to day bin No. 1 (ID No. ES-14), and
- Day bin No. 2 feed conveyor to day bin No. 2 (ID No. ES-15).

Day bin No. 1 transfer to wet ball mill No. 1 in preparation building (ID No. ES-16).
Day bin No. 2 transfer to wet ball mill No. 2 in preparation building (ID No. ES-17).
Wet ball mill No. 1 and product classifier in preparation building (ID No. ES-18A).
Wet ball mill No. 2 and product classifier in preparation building (ID No. ES-18B).

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	Ambient air quality standards, opacity, and control requirements for non-process fugitive dust pursuant to 15A NCAC 02D .0540 [See Facility Wide Requirements - Section 2.2 A.1]	15A NCAC 02D .0510
Particulate Matter	0.022 grains per dry standard cubic foot for stack emissions and building vents	15A NCAC 02D .0524 [40 CFR 60.672(a)(1)]
Visible Emissions	Seven percent opacity for stack emissions and building vents	15A NCAC 02D .0524 [40 CFR 60.672(a)(2)]
Visible Emissions	10 percent opacity for fugitive emissions (Excludes conveyor to storage pile transfer point and truck, front end loader, railcar dumping into feed bin)	15A NCAC 02D .0524 [40 CFR 60.672(b)]
Visible Emissions	No visible emissions from buildings, excluding building vents	15A NCAC 02D .0524 [40 CFR 60.672(e)(1)]
Particulate Matter	Control requirements for non-process fugitive dust [See Facility Wide Requirements - Section 2.2 A.2]	15A NCAC 02D .0540

1. 15A NCAC 02D .0524: NSPS 40 CFR PART 60 SUBPART OOO

a. 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 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) [40 CFR 60.672(a)(1)]; and
   ii Exhibit greater than 7 percent opacity [40 CFR 60.672(a)(2)].
   iii. Emission sources with stack emissions affected by these requirements include:
      (A) Railcar unloading enclosure dust collection system with fabric filter (ID No. CDRULBF) installed on: dual hopper

transfer to hopper conveyor No.1 (ID No. ES-8A), dual hopper transfer to hopper conveyor No. 2 (ID No. ES-8B), and hopper conveyors No. 1 and No. 2 transfer to transfer tower stock pile conveyor (ID No. ES-8-3);

(B) Preparation building dust collection system with fabric filter (ID No. CDLSBF) installed on: preparation plant feed conveyor with flop gate transfer to day bin No. 2 feed conveyor (ID No. ES-13), preparation plant feed conveyor with flop gate transfer to day bin No. 1 (ID No. ES-14), and day bin No. 2 feed conveyor to day bin No. 2 (ID No. ES-15); and

(C) Any vent of any building enclosing any affected emission source including; the railcar unloading enclosure, transfer tower for ES-9, transfer tower for ES-12, and the reagent preparation building.

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 any fugitive emissions that exhibit greater than 10 percent opacity.

c. The Permittee shall not allow to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions. Affected buildings include the railcar unloading enclosure, transfer tower for ES-9, transfer tower for ES-12, and the reagent preparation building.

Initial Performance Testing [40 CFR60.675 and 15A NCAC 02Q .2601]

d. On and after the sixtieth day after achieving the maximum production rate at which an affected source will be operated, but not later than 180 days after initial startup, a performance test shall be conducted to demonstrate compliance with the applicable emissions limit. [40 CFR 60.8(a)]

e. The Permittee shall determine compliance with the particulate matter standards using Method 5 or Method 17 to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.[40 CFR 60.675(b)]

f. In determining compliance with the visibility standard of 10 percent opacity, the Permittee shall use Method 9 and the procedures in 40 CFR 60.11, with the following additions.

i. The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

ii. The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

iii. For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

iv. When determining compliance with the fugitive emissions 10 percent opacity standard, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(A) There are no individual readings greater than 10 percent opacity; and

(B) There are no more than 3 readings of 10 percent for the 1-hour period. .[40 CFR 60.675(c)]

j. In determining compliance with the no visible emissions standard for building enclosures, the Permittee shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes. [40 CFR 60.675(d)]

k. The Permittee may use the following as alternatives to the reference methods and procedures specified in this permit:

i. For the method and procedure of Section 4.c. above, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(A) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream, or

(B) Separate the emissions so that the opacity of emissions from each affected facility can be read. [40 CFR 60.675(e)]

l. Performance tests shall be conducted under conditions the DAQ shall specify to the plant operator based on representative performance of the affected source. The Permittee shall make available to the DAQ such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)]

m. The Permittee shall provide, or cause to be provided, performance testing facilities as follows:

i. Sampling ports adequate for test methods applicable to such facility including;

(A) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be

accurately determined by applicable test methods and procedures and
(B) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;
ii. Safe sampling platform(s);
iii. Safe access to sampling platform(s); and
iv. Utilities for sampling and testing equipment.[40 CFR 60.8(e)]

n. Each performance test shall consist of three separate runs using the applicable reference method of 40 CFR 60, Appendix A. Each run shall be conducted for the time and under the conditions specified for the applicable test method. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the Permittee's control, compliance may, upon the DAQ's approval, be determined using the arithmetic mean of the results of the two other runs. [40 CFR 60.8(f)]

Additional Testing [15A NCAC 02Q .2601]

o. In addition to initial performance testing, if emissions testing may be subsequently required to demonstrate compliance with an applicable permit condition. The testing shall be performed in accordance with General Condition JJ.

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

p. Particulate matter emissions from sources ID Nos. ES-8-1, ES-8-2A, ES-8-2B, and ES-8-3 shall be controlled by fabric filter ID No. CDRULBF, and particulate matter emissions from sources ID Nos. ES 13, ES-14, and ES-15 shall be controlled by fabric filter ID No. CDLSBF. To assure 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 is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
i. A monthly visual inspection of the system ductwork and bag house for leaks; and
ii. An annual internal inspection of the bag house and ducting for structural integrity.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the ductwork, baghouse, and fabric filters are not inspected and maintained.

q. For each emission sources, as listed above in Section 2.1 D., subject to an opacity standard listed, including building enclosures, once a month the Permittee shall observe the emissions point(s) for any visible emissions above normal to assure compliance. The Permittee shall establish "normal" for the sources in the first 30 days following completion of the initial performance test. If visible emissions from this source are observed to be above normal, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0524; UNLESS, an approved Method 9 opacity determination meeting the requirements of 15A NCAC 02D .0501(c)(8) is performed and visible emissions are demonstrated to comply with the applicable limit given above in Section 2.1 D.1.a.ii., b., and c.. If compliance with the applicable limit cannot be demonstrated, the Permittee shall deemed to be in noncompliance with 15A NCAC 02D .0524.

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

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

s. 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.

t. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

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

u. The Permittee shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in this permit, including reports of opacity observations made using Method 9 and Method 22 to demonstrate compliance. [40 CFR 60.676(f)]

v. 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.

w. All instances of deviations from the requirements of this permit must be clearly identified.

E. Limestone, Receiving, Storage, Transfer, and Grinding

Railcar transfer to dual hopper (ID No. ES-8-1).
Stockpile stack out conveyor to stockpile and stockpile (ID No. ES-10).
Stockpile transfer to grate feed of stockpile reclaim conveyor (ID No. ES-11A).

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	Ambient air quality standards, opacity, and control requirements for non-process fugitive dust pursuant to 15A NCAC 02D .0540 [See Multiple Emission Sources - Section 2.2 A.1]	15A NCAC 02D .0510
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Particulate Matter	Control requirements for non-process fugitive dust [See Multiple Emissions Sources - Section 2.2 A.2.]	15A NCAC 02D .0540

1. 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 [15A NCAC 02Q .0508(f)]

c. To assure compliance, once a month the Permittee shall observe the emission points (ID Nos. ES-8-1, ES-10 and ES 11A) for any visible emissions above normal. The Permittee shall establish "normal" for these sources in the first 30 days following the start up of these sources. If visible emissions from these sources are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 02D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2601 for 30 minutes is below the limit given in Section 2.1 E.1.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.

F. Dry Flyash System

Eight flyash transfer filter separators (ID Nos. ES-FS1/2, ES-FS1/2b, ES-FS3, ES-FS3b, ES-FS4, ES-FS4b, ES-FS5 and ES-

FS5b) and associated baghouses (ID Nos. CD-U1/2FS, CD-U1/2FSa, CD-U3FS, CD-U3FSb, CD-U4FS, CD-U4FSb, CD-U5FS and CD-U5FSb)

Two ash silos (ID Nos. ES-AS1 and ES-AS2) and two (dry) flyash truck loading equipment (ID Nos. ES-FTLD1 and ES-FTLD2) and associated baghouses (ID Nos. CD-S1Bf and CD-S2Bf)

Two (wet) flyash truck loading equipment (ID Nos. ES-FTLW1 and ES-FTLW2)

Truck transport (ID No. Fugitive 1), truck unloading (ID No. Fugitive 2), and dry ash landfill management (ID No. Fugitive 3)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Affected emission sources: ID Nos. ES-FS1/2, ES-FS1/2b, ES-FS3, ES-FS3b, ES-FS4, ES-FS4b, ES-FS5, ES-FS5b, ES-AS1, ES-AS2, ES-FTLD1 and ES-FTLD2		
Particulate Matter	$E = 4.10 \times (P)^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times (P)^{0.11} - 40$ for $P > 30$ tons/hr Where: E = allowable particulate emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 02D .0515
Visible Emissions	20 percent opacity (except during startups, 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.	15A NCAC 02D .0521
Affected Emission Source: ID No. Fugitive 3		
PM-10	no observation of visible dust emissions without taking corrective action.	15A NCAC 02Q.0317(a)(1) (PSD avoidance)

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

a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 02D .0515(a)]

E = 4.10 x P 0.67 for P 30 tons/hr, or
E = 55.0 x P 0.11 - 40 for P >30 tons/hr

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 F.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

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

c. Particulate matter emissions from the eight flyash transfer filter separators (ID Nos. ES-FS1/2, ES-FS1/2b, ES-FS3, ES-FS3b, ES-FS4, ES-FS4b, ES-FS5 and ES-FS5b) shall be controlled by the bagfilters (ID Nos. CD-U1/2FS, CD-U1/2FSa, CD-U3FS, CD-U3FSb, CD-U4FS, CD-U4FSb, CD-U5FS and CD-U5FSb), and particulate matter emissions from the two ash silos (ID Nos. ES-AS1 and ES-AS2) and two (dry) flyash truck loading equipment (ID Nos. ES-FTLD1 and ES-FTLD2) shall be controlled by the bagfilters (ID Nos. CD-S1Bf and CD-S2Bf). To assure 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 is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

i. A monthly visual inspection of the system 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.

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

d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date and time of each recorded action;
   ii. The results of each inspection;
   iii. The results of any maintenance performed on the 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 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-FS1/2, ES-FS1/2b, ES-FS3, ES-FS3b, ES-FS4, ES-FS4b, ES-FS5, ES-FS5b, ES-AS1, ES-AS2, ES-FTLD1 and ES-FTLD2) 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 F.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, 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 in the first 30 days following the start up of these sources. If visible emissions from these sources are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 02D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2601 for 30 minutes is below the limit given in Section 2.1 F.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 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), fugitive dust emissions from dryash landfill management (ID No. Fugitive 3) shall be controlled by mixing water with the dry flyash when loading into trucks prior to transporting to the landfill for spreading and compacting.

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

b. The Permittee shall ensure that, when loading flyash into trucks from the silos, sufficient water is mixed with the flyash to avoid any visible fugitive dust emissions beyond the immediate loading area. The Permittee shall maintain daily records indicating whether any visible emissions are observed from truck loading beyond the immediate loading area. If dust emissions are observed, the operator shall take corrective action to adjust the amount of water being mixed with the flyash, or call for manual watering of the trucks as filled if the system is malfunctioning, or discontinue operation until repairs are made. The following shall be recorded:
   i. The date and time of each recorded action;
   ii. Whether any visible emissions are observed; and
   iii. Any corrective action taken.

   These records shall be maintained in a logbook (written or electronic format) on-site and be made available to an authorized DAQ representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if no corrective action is taken after visible dust emissions are observed or if these records are not maintained.

G. Diesel-fired emergency quench pump (440 HP maximum engine power) [ID No. ES-EmQP] Diesel-fired emergency fire pump (288 HP maximum engine power) [ID No. ES-EmFP] Propane-fired emergency generator for microwave tower (23.6 HP maximum engine power) [ID No. ES-EmGenMWT]

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input (ID No. ES-EmGenMWT]	15A NCAC 02D .0516
Visible emissions	20 percent opacity each (ID Nos. ES-EmQP, ES-EmFP, and ES-EmGenMWT)	15A NCAC 02D .0521
Multiple pollutants	See Section 2.1 G. 3. (ID Nos. ES-EmQP and ES-EmFP)	15A NCAC 02D .0524 [40 CFR Part 60 Subpart IIII]
Multiple pollutants	See Section 2.1 G.4. (ID No. ES-EmGenMWT)	15A NCAC 02D .0524 [40 CFR Part 60 Subpart JJJJ]
Hazardous Air Pollutants	See Section 2.1 G.5. (ID Nos. ES-EmQP, ES-EmFP, and ES-EmGenMWT)	15A NCAC 02D .1111 [40 CFR 63 Subpart ZZZZ]

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

a. Emissions of sulfur dioxide from emergency generator (ID No. ES-EmGenMWT) 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 .0308]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308]

c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from burning propane fuel in

emergency generator (ID No. ES-EmGenMWT).

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

a. Visible emissions from emergency quench pump (ID No. ES-EmQP), emergency fire pump (ID No. ES-EmFP), and emergency generator (ID No. EmGenMWT) shall not be more than **20 percent opacity** each 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 .0308]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308]

c. No monitoring, recordkeeping, or reporting is required for visible emissions from burning diesel fuel in emergency quench pump (ID No. ES-EmQP) and emergency fire pump (ID No. ES-EmFP), and propane fuel in emergency generator (ID No. ES-EmGenMWT).

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDRADS [40 CFR 60 SUBPART IIII]

a. For emergency quench pump (ID No. ES-EmQP) and emergency fire pump (ID No. ES-EmFP), the Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart IIII, including Subpart A "General Provisions." [15A NCAC 02D .0524]

Emission Standards

b. The Permittee shall comply with the following emission standards for emergency quench pump (ID No. ES-EmQP) and emergency fire pump (ID No. ES-EmFP):

NMHC and NOx (combined): 10.5 g/kW-hr
CO: 3.5 g/kW-hr
PM: 0.54 g/kW-hr

[§60.4205(c) and Table 4 to the Subpart IIII]

c. The Permittee shall use diesel fuel in the compression ignition (CI) internal combustion engine (ICE) of emergency quench pump (ID No. ES-EmQP) and emergency fire pump (ID No. ES-EmFP) with a sulfur content of less than 15 ppm beginning October 1, 2010. [§60.4207(b) and §80.510 (b)]

Testing [15A NCAC 02Q .0308]

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

Monitoring [15A NCAC 02Q .0308]

e. The CI ICE of emergency quench pump (ID No. ES-EmQP) and emergency fire pump (ID No. ES-EmFP) shall be equipped with a non-resettable hour meter prior to startup, if the CI ICE does not meet the standards in §60.4204. [§60.4209(a)]

f. The Permittee shall operate and maintain each stationary CI ICE that achieves the emission standards in §60.4205 over the entire life of the engine according to the manufacturer's emission-related written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. The Permittee may only change engine settings that are permitted by the manufacturer. The Permittee shall also meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable. [§60.4206 and §60.4211(a)]

g. If the CI engine of emergency quench pump or emergency fire pump is manufactured prior to the model years in Table 3 to

the Subpart and must comply with the emission standards in §60.4205(c), the Permittee shall demonstrate compliance according to one of the methods specified in §60.4211(b) as included below:
i. Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.
ii. Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.
iii. Keeping records of engine manufacturer data indicating compliance with the standards.
iv. Keeping records of control device vendor data indicating compliance with the standards.
v. Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

[§60.4211(b)]

h. If the CI fire pump engine that is manufactured during or after the model year that applies to engine power rating in Table 3 to the Subpart for emergency quench pump (ID No. ES-EmQP) and emergency fire pump (ID No. ES-EmFP), the Permittee shall comply by purchasing an engine certified to the emissions standards in §60.4205(c) for the same model year and the NFTA nameplate engine power. [§60.4211(c)]

i. The Permittee shall operate the stationary ICE of emergency quench pump (ID No. ES-EmQP) and emergency fire pump (ID No. ES-EmFP) according to the requirements in paragraphs (f)(1) through (3) of §60.4211. In order for the engine to be considered an emergency stationary ICE under this Subpart, any operation other than emergency

operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of §60.4211, is prohibited. If the Permittee does not operate the engine according to the requirements in paragraphs (f)(1) through (3) of §60.4211, the engine will not be considered an emergency engine under this Subpart and shall meet all requirements for non-emergency engines.

i. There is no time limit on the use of emergency stationary ICE in emergency situations.
ii. The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of §60.4211 for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of §60.4211 counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(A) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(B) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP–002–3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP–002–3.

(C) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraph (f)(3)(i) of §60.4211, the 50 hours per calendar year for nonemergency situations cannot be used for peak shaving or non-emergency demand response, or to generate

income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(A) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(AA) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(BB) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(CC) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(DD) The power is provided only to the facility itself or to support the local transmission and distribution system.

(EE) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[§60.4211(f]

j. If the Permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the Permittee changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as follows:

i. If Permittee's stationary CI internal combustion engine with maximum engine power is less than 100 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance to demonstrate compliance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if the Permittee does not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or the Permittee changes the emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.

ii. If Permittee's stationary CI internal combustion engine is greater than or equal to 100 HP and less than or equal to 500 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.

iii. If Permittee's stationary CI internal combustion engine is greater than 500 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer. The Permittee shall conduct subsequent performance testing every 8,760 hours of

engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

[§60.4211(g)]

Recordkeeping [15A NCAC 02Q .0308]

k. Starting with the emergency engine model year 2011, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time.

[§60.4214(b)]

l. If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the Permittee shall keep records of any corrective action taken after the backpressure monitor has notified the Permittee that the high backpressure limit of the engine is approached. [§60.4214(c)]

Reporting [15A NCAC 02Q .0308]

m. No initial notification under §60.7 is required for the emergency stationary CI internal combustion engines. Starting with the model years in Table 5 to this Subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [§60.4214(b)]

n. If the Permittee operates the emergency stationary CI ICE with a maximum engine power of 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 60.4211(f)(2)(ii) and (iii), or that operates for the purposes specified in §60.4211(f)(3)(i), the Permittee shall submit an annual report according to the requirements in paragraphs (d)(1) through (3) of §60.4214. [§60.4214(d)]

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS [40 CFR 60 SUBPART JJJJ]

a. The Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart JJJJ, including Subpart A "General Provisions." [15A NCAC 02D .0524]

Emission Standards

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

NMHC and NOx (combined): 13.4 g/kW-hr
CO: 519 g/kW-hr

[§60.4233(a) and §90.103(a)]

Monitoring [15A NCAC 02Q .0308]

c. The Permittee shall operate and maintain the stationary spark ignition (SI) internal combustion engine (ICE) that achieve the emission standard in Section 2.1 G.4.b. above over the life of the engine. [§60.4234]

d. The SI ICE of emergency generator (ID No. ES-EmGenMWT) shall be equipped with a non-resettable hour meter prior to startup, if the SI ICE does not meet the standards applicable to non-emergency engines. [§60.4237(c)]

e. If the SI ICE of the emergency generator (ID No. ES-EmGenMWT) is required to meet the emissions standards in §60.4233(a), the Permittee shall comply by purchasing an engine certified to emission standards in §60.4231(a) for the same engine class and maximum engine power. In addition, the Permittee shall meet one of the requirements in (a)(1) and (a)(2) of §60.4243 as included below:

i. If the Permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the Permittee shall keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are the owner or operator. The Permittee shall also meet the requirements as specified in 40 CFR Part 1068, Subparts A through D, as they apply to the Permittee. If the Permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the Permittee's stationary SI internal combustion engine will not be considered out of compliance.

ii. If the Permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the Permittee's engine will be considered a non-certified engine, and the Permittee shall demonstrate compliance according to (a)(2)(i) through (iii) of §60.4243, as appropriate, as included below:

(A) If Permittee's stationary SI internal combustion engine is less than 100 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance to demonstrate compliance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required if you are an owner or operator.

(B) If Permittee's stationary SI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test within 1 year of engine startup to demonstrate compliance.

(C) If Permittee's stationary SI internal combustion engine is greater than 500 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

[§60.4243(a)]

f. The Permittee shall operate the emergency stationary ICE according to the requirements in paragraphs (d)(1) through (3) of §60.4243. In order for the engine to be considered an emergency stationary ICE under this Subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in nonemergency situations for 50 hours per year, as described in paragraphs (d)(1) through (3) of §60.4243, is prohibited. If the Permittee does not operate the engine according to the requirements in paragraphs (d)(1) through (3) of §60.4243, the engine will not be considered an emergency engine under this Subpart and shall meet all requirements for non-emergency engines.

i. There is no time limit on the use of emergency stationary ICE in emergency situations.

ii. The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraphs (d)(2)(i) through (iii) of §60.4243 for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (d)(3) of §60.42143 counts as part of the 100 hours per calendar year allowed by this paragraph (d)(2).

(A) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(B) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard

EOP–002–3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP–002–3.

(C) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (d)(2) of this section. Except as provided in paragraph (d)(3)(i) of §60.4243, the 50 hours per calendar year for nonemergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(A) The 50 hours per year for nonemergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(AA) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(BB) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(CC) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(DD) The power is provided only to the facility itself or to support the local transmission and distribution system.

(EE) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[§60.4243(d)]

g. If the Permittee purchases a non-certified engine for emergency generator (ID No. ES-Gen-83) or if the Permitteee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, the Permittee is required to perform initial performance testing as indicated in §60.4243, but the Permittee is not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR 94.11(a). [§60.4243(f)]

Recordkeeping [15A NCAC 02Q .0308]

h. The Permittee shall keep records of the information in paragraphs (a)(1) through (4) of §60.4245 for SI ICE of emergency generator (ID No. ES-EmGenMWT):
   i. All notifications submitted to comply with this subpart and all documentation supporting any notification.
   ii. Maintenance conducted on the engine.
   iii. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
   iv. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to §60.4243(a)(2), documentation that the engine meets the emission standards.

[§60.4245(a)]

Reporting [15A NCAC 02Q .0308]

i. No initial notification under §60.7 is required for SI internal combustion engine of the emergency generator (ID No. ES-EmGenMWT). [§60.4246 and Table 3 to 40 CFR 60 Subpart JJJJ]

j. If the Permittee operates the emergency stationary CI ICE with a maximum engine power of 100 HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 60.4243(d)(2)(ii) and (iii), or that operates for the purposes specified in §60.4243(d)(3)(i), the Permittee shall submit an annual report according to the requirements in paragraphs (e)(1) through (3) of §60.4245.

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

a. For emergency quench pump (ID No. ES-EmQP), emergency fire pump (ID No. ES-EmFP), and emergency generator (ID No. ES-EmGenMWT), the Permittee shall comply with all applicable provisions, including the requirements for emission limitations, testing, monitoring, recordkeeping, notification, and reporting, contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology (MACT)" as promulgated in 40 CFR Part 63 Subpart ZZZZ, including Subpart A "General Provisions."

b. The Permittee shall meet the requirements of this 40 CFR 63 Subpart ZZZZ by meeting all applicable requirements in 40 CFR 60 Subpart IIII for compression ignition engines of emergency quench pump (ID No. ES-EmQP) and emergency fire pump (ID No. ES-EmFP), and no further requirements shall apply to these engines under this Part in accordance with §63.6590(c).

c. The Permittee shall meet the requirements of this 40 CFR 63 Subpart ZZZZ by meeting all applicable requirements in 40 CFR 60 Subpart JJJJ for spark ignition engine of emergency generator (ID No. ES-EmGenMWT) and no further requirements shall apply to this engine under this Part in accordance with §63.6590(c).

H. One Units 4 and 5 DSI ACI storage silo (ID No. ES-U4/5ACISilo) and associated Units 4 and 5 ACI storage silo bin vent filter baghouse (ID No. CD-U4/5ACISiloBf)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times (P)^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times (P)^{0.11} - 40$ for $P > 30$ tons/hr Where: E = allowable particulate emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 02D .0515
Visible Emissions	20 percent opacity (except during startups, 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.	15A NCAC 02D .0521

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

a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 02D .0515(a)]

$$\mathbf{E = 4.10 \times P^{0.67}} \quad \text{for } \mathbf{P} \leq 30 \text{ tons/hr, or}$$

$$\mathbf{E = 55.0 \times P^{0.11} - 40} \quad \text{for } \mathbf{P} > 30 \text{ tons/hr}$$

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 02D .2601]

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 .0515.

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

c. Particulate matter emissions from the Units 4 and 5 DSI ACI storage silo (ID No. ES-U4/5ACISilo) shall be controlled by the bagfilter (ID No. CD-U4/5ACISiloBf). To assure 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 is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. A monthly visual inspection of the system ductwork and material collection unit for leaks; and
   ii. An annual (for each 12 month period following the initial inspection) internal inspection of the bagfilters' structural integrity.

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

d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date and time of each recorded action;
   ii. The results of each inspection;
   iii. The results of any maintenance performed on the bagfilter; 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 bagfilter within 30 days of a written request by the DAQ.

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

2. 15A NCAC 02D .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 02D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 02D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1.H.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. To assure 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 in the first 30 days following the start up of these sources. If visible emissions from these sources are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 02D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2601 for 30 minutes is below the limit given in Section 2.1.H.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.

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

A. Limestone, Receiving, Storage, Transfer, and Grinding

Railcar unloading enclosure dust collection system with fabric filter (ID No. CDRULBF) installed on:

- Railcar transfer to dual hopper (ID No. ES-8-1) not subject to NSPS OOO notification or opacity requirements,
- Hopper No. 1 transfer to hopper conveyor No.1 (ID No. ES-8-2A),
- Hopper No. 2 transfer to hopper conveyor No. 2 (ID No. ES-8-2B), and
- Hopper conveyors No.1 and No. 2 transfer-to-transfer tower stockpile conveyor (ID No. ES-8-3).

Transfer tower stockpile conveyor transfer to stockpile stack out conveyor in transfer tower (ID No. ES-9).
Grate feeder transfer to stock pile reclaim conveyor (ID No. ES-11B).
Stockpile reclaim conveyor transfer to preparation plant feed conveyor in transfer tower (ID No. ES-12).
Preparation building dust collection system with fabric filter (ID No. CDLSBF) installed on:

- Preparation plant feed conveyor with flop gate transfer to day bin No. 2 feed conveyor (ID No. ES-13),
- Preparation plant feed conveyor with flop gate transfer to day bin No. 1 (ID No. ES-14), and
- Day bin No. 2 feed conveyor to day bin No. 2 (ID No. ES-15).

Day bin No. 1 transfer to wet ball mill No. 1 in preparation building (ID No. ES-16).
Day bin No. 2 transfer to wet ball mill No. 2 in preparation building (ID No. ES-17).
Wet ball mill No. 1 and product classifier in preparation building (ID No. ES-18A).
Wet ball mill No. 2 and product classifier in preparation building (ID No. ES-18B).

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	Ambient air quality standards, opacity, and control requirements for non-process fugitive dust pursuant to 15A NCAC 02D .0540	15A NCAC 02D .0510
Particulate Matter	Control requirements for non-process fugitive dust	15A NCAC 02D .0540

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 Section 2.2 A.2. (15A NCAC 02D .0540).
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. (15A NCAC 02D .0524 - 40 CFR 60, Subpart OOO) and 2.1

E.1. (15 A NCAC 02D .0521) 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 Permittee shall comply with the monitoring/recordkeeping/reporting required in the applicable requirement. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0510 if monitoring, recordkeeping, and recordkeeping are not conducted in accordance with the applicable permit condition

2. 15A NCAC 02D .0540: PARTICULATES FROM FUGITIVE NON-PROCESS DUST EMISSION SOURCES

a. The Permittee shall not cause or allow fugitive non-process dust emissions (i.e., 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) to cause or contribute to substantive complaints (i.e., complaints that are verified with physical evidence acceptable to the DAQ).
b. If fugitive non-process dust emissions cause or contribute 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; and
   iii. Within 30 days after the Director approves the plan, be in compliance with the plan.
c. The Director may require that the Permittee develop and submit a fugitive non-process dust control plan 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. If 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.
d. A 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.
e. The Director shall approve the plan if he finds that:
   i. The plan contains all required elements;
   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, 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.
f. If after a plan has been implemented, the Director finds that the plan inadequately controls fugitive non-process dust emissions; he shall require the Permittee 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.

B. Facility Wide

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Toxic Air Pollutant Emissions	Emissions rates modeled to demonstrate compliance with acceptable ambient levels. **State Only Requirement**	15A NCAC 02D .1100

State-Only Requirement

1. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

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

EMISSION SOURCE	TOXIC AIR POLLUTANT(S)	EMISSION LIMIT
Wastewater Bioreactor (ID No. WWTBR)	Hydrogen Sulfide	51 pounds per day

Monitoring/Recordkeeping/Reporting

a. No monitoring, recordkeeping, or reporting is required.

2. 15A NCAC 02Q .0309: TERMINATION, MODIFICATION, AND REVOCATION OF PERMITS for AVOIDANCE OF 15A NCAC 02Q .0705 APPLICABILITY

a. The following table provides a summary of limits and standards for the facility:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Arsenic	1.741 tons/year	15A NCAC 02Q.0309 (02Q .0705 avoidance)

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 2.2 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0705.

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

c. No monitoring, recordkeeping, or reporting requirements shall be necessary

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 Unit 1 - 5 boilers (ID Nos. ES-1, ES-2, ES-3, ES-4, and ES-5)

1. 15A NCAC 02D .0501(c)(11), testing for mercury emissions, is not applicable because 15A NCAC 02D .0537, "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 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's, is not applicable because there are not rules applicable to these sources in 02D .0900.
11. 15A NCAC 02D .0912(c), testing on VOC's, is not applicable because there are no rules applicable to these sources in 02D .0900.
12. 15A NCAC 02D .0912(d), reporting on VOC's 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's, is not applicable because there are no rules applicable to these sources in 02D .0900.
14. 15A NCAC 02D .0939(a), testing for VOC's 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's for sources subject to 02D .0912, is not applicable because there are no rules applicable to these sources in 02D .0900.
16. 15A NCAC 02Q .0508(p)(1), recordkeeping on alternative operating scenarios, is not applicable because there are no alternative operating scenarios.
17. 15A NCAC 02Q .0508(g), option to only reference Accidental Release Risk Management Plan in the Title V application, is not applicable because the facility does not exceed the threshold limit for Section 112(r) applicability for accidental releases.
18. 15A NCAC 02D .0503(a), particulates from fuel burning indirect heat exchangers, is not applicable since the boilers are covered under 15A NCAC 02D .0536 for particulate emissions.

B. The following requirements are not applicable to auxiliary boiler (ID No. ES-6AuxB):

1. 15A NCAC 02D .0519, nitrogen oxide emission limits, is not applicable because the auxiliary boiler is a non-NSPS applicable boiler with a heat input rating of less than 250 million Btu per hour.
2. 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.
3. 15A NCAC 02D .0536, emission limits for particulate matter from utility boilers, is not applicable because this boiler is not a utility boilers.
4. 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 boiler has a heat input of less than 250 million Btu per hour.
5. 15A NCAC 02D .0608, sulfur dioxide emissions from other coal or residual oil burners, is not applicable because this boiler does not burn coal or residual oil.
6. 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 this boiler is not a utility unit.

C. The following requirements are not applicable to the 111,000 gallon No. 2 fuel oil storage tank.

1. 15A NCAC 02D .0925 "Petroleum Liquid Storage in Fixed Roof Tanks" is not applicable to the No. 2 Fuel Oil Storage Tank, because the vapor pressure of the No. 2 fuel oil is less than 1.52 psia.

2. The NSPS for Storage Vessels of VOC including Petroleum Liquid (40 CFR 60 Subpart Kb) is not applicable to the No. 2 Fuel Oil Storage Tank, because the capacity of the tank is less than 10,554 gallons, and it was constructed before June 23, 1984.
3. The NSPS for Storage Vessels of Petroleum Liquid (40 CFR 60 Subpart K and Ka) is not applicable to the No. 2 Fuel Oil Storage Tank, because fuel oil is not included in the definition of petroleum liquid.

2.4 - Phase II Acid Rain Permit Requirements

ORIS code: 2718

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 Department of Environment and Natural Resources, 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

U1Boiler (ID No. ES-1)	SO_2 allowances, under Tables 2, 3, or 4 of 40 CFR part 73*.	The number of allowances of sulfur dioxide is allocated to Phase II-affected units by U.S. EPA under Tables 2, 3, or 4 of 40 CFR Part 73 and may change. 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.
	NO_X limit	Pursuant to 40 CFR 76.11, the Division of Air Quality approves a NO_X emissions averaging plan for this unit, effective from calendar years 2012 through 2017. 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 **0.31 lb/MMBtu** or has an annual heat input less than **652,050 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 accordance with 40 CFR 72.40(b)(2), approval of the averaging plan shall be final only when the Indiana Department of Environmental Management; Commonwealth of Kentucky, Department of Environmental Protection; and South Carolina Department of Health and Environmental Control have also approved this averaging plan. 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.

U2Boiler (ID No. ES-2)	SO_2 allowances, under Tables 2, 3, or 4 of 40 CFR part 73*.	The number of allowances of sulfur dioxide is allocated to Phase II-affected units by U.S. EPA under Tables 2, 3, or 4 of 40 CFR Part 73 and may change. 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.
	NO_X limit	Pursuant to 40 CFR 76.11, the Division of Air Quality approves a NO_X emissions averaging plan for this unit, effective from calendar years 2012 through 2017. 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 **0.31 lb/MMBtu** or has an annual heat input less than **231,000 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 accordance with 40 CFR 72.40(b)(2), approval of the averaging plan shall be final only when the Indiana Department of Environmental Management; Commonwealth of Kentucky, Department of Environmental Protection; and South Carolina Department of Health and Environmental Control have also approved this averaging plan. 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.

U3Boiler (ID No. ES-3)	SO_2 allowances, under Tables 2, 3, or 4 of 40 CFR part 73*.	The number of allowances of sulfur dioxide is allocated to Phase II-affected units by U.S. EPA under Tables 2, 3, or 4 of 40 CFR Part 73 and may change. 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.
	NO_X limit	Pursuant to 40 CFR 76.11, the Division of Air Quality approves a NO_X emissions averaging plan for this unit, effective from calendar years 2012 through 2017. 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 **0.32 lb/MMBtu** or has an annual heat input less than **5,999,700 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 accordance with 40 CFR 72.40(b)(2), approval of the averaging plan shall be final only when the Indiana Department of Environmental Management; Commonwealth of Kentucky, Department of Environmental Protection; and South Carolina Department of Health and Environmental Control have also approved this averaging plan. 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.

U4Boiler (ID No. ES-4)	SO_2 allowances, under Tables 2, 3, or 4 of 40 CFR part 73*.	The number of allowances of sulfur dioxide is allocated to Phase II-affected units by U.S. EPA under Tables 2, 3, or 4 of 40 CFR Part 73 and may change. 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.
	NO_X limit	Pursuant to 40 CFR 76.11, the Division of Air Quality approves a NO_X emissions averaging plan for this unit, effective from calendar years 2012 through 2017. 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 **0.32 lb/MMBtu** or has an annual heat input less than **6,982,500 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 accordance with 40 CFR 72.40(b)(2), approval of the averaging plan shall be final only when the Indiana Department of Environmental Management; Commonwealth of Kentucky, Department of Environmental Protection; and South Carolina Department of Health and Environmental Control have also approved this averaging plan. 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.

U5Boiler (ID No. ES-5)	SO_2 allowances, under Tables 2, 3, or 4 of 40 CFR part 73*.	The number of allowances of sulfur dioxide is allocated to Phase II-affected units by U.S. EPA under Tables 2, 3, or 4 of 40 CFR Part 73 and may change. 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.
	NO_X limit	Pursuant to 40 CFR 76.11, the Division of Air Quality approves a NO_X emissions averaging plan for this unit, effective from calendar years 2012 through 2017. 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 **0.31 lb/MMBtu** or has an annual heat input less than **4,391,100 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 accordance with 40 CFR 72.40(b)(2), approval of the averaging plan shall be final only when the Indiana Department of Environmental Management; Commonwealth of Kentucky, Department of Environmental Protection; and South Carolina Department of Health and Environmental Control have also approved this averaging plan. 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 Applications (attached)

The permit applications submitted for this facility, as approved by the Department of Environment and Natural Resources, 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 applications:

Acid Rain Permit Application dated June 10, 2011
Phase II NOx Compliance Plan dated June 24, 2011
Phase II NOx Averaging Plan dated December 19, 2011

2.5 - Clean Air Interstate Rules (CAIR) Permit Requirements

ORIS code: 2718

The following sources are affected CAIR units:

PERMITTED SOURCE	CAIR ID No.
ES-1 (Boiler 1)	1
ES-2 (Boiler 2)	2
ES-3 (Boiler 3)	3
ES-4 (Boiler 4)	4
ES-5 (Boiler 5)	5

A. 15A NCAC 02D .2403: NITROGEN OXIDE EMISSIONS

1. The total nitrogen oxide (NOx) emissions from Duke Energy Carolinas LLC's Allen Steam Station facility shall not exceed, except as provided in 15A NCAC 02D .2408:
   a. 4,338 tons annually for 2009-2014; and
   b. 3,691 tons annually for 2015 and later
   [15A NCAC 02D .2403]
2. The affected CAIR NOx sources shall comply with the requirements of 15A NCAC 02D .2408 using the trading program and banking set out in 40 CFR Part 96.
   [15A NCAC 02D .2407]
3. The owner or operator of any unit or source covered under 15A NCAC 02D .2403 shall be subject to the provisions of 40 CFR 96.106(f).
   [15A NCAC 02D .2403(e)]

Monitoring/Recordkeeping/Reporting [15A NCAC 02D .2403, and 15A NCAC 02D .2407(a)]

4. The emissions of nitrogen oxides of a CAIR NOx source shall not exceed the number of allowances that it has in its compliance account established and administered under Rule .2408 of this Section.
5. The emissions measurements recorded and reported according to 40 CFR Part 96 Subpart HH shall be used to determine compliance by each CAIR NOx source with its emissions limitation according to 40 CFR 96.106(c) including 96.106(c)(5) and (6).
6. The provisions of 40 CFR 96.106(d) shall be used for excess emissions.

B. 15A NCAC 02D .2405: NITROGEN OXIDE EMISSIONS DURING OZONE SEASON

1. Ozone season NOx emissions from Duke Energy Carolinas LLC's Allen Steam Station facility shall not exceed, except as provided in 15A NCAC 02D .2408:
   a. 2,096 tons during the ozone season for 2009-2014; and
   b. 1,784 tons during the ozone season for 2015 and later
   The ozone season shall be defined as the period of time extending from May 1st to September 30th of each calendar year.
   [15A NCAC 02D .2405(a)(1) and (b)]
2. The affected CAIR NOx Ozone Season sources shall comply with the requirements of 15A NCAC 02D .2400 using the trading program and banking set out in 40 CFR Part 96.
   [15A NCAC 02D .2408]
3. The owner or operator of any unit or source covered under 15A NCAC 02D .2405 shall be subject to the provisions of 40 CFR 96.306(f).
   [15A NCAC 02D .2405(g)]

Monitoring/Recordkeeping/Reporting [15A NCAC 02D .2405(d) and (e), and 15A NCAC 02D .2407(a)]

4. The Permittee shall comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR 96.306(b) and (e), and 40 CFR 96 Subpart HHHH for each CAIR Ozone Season NOx unit.
5. The nitrogen oxide ozone season emissions of a CAIR NOx Ozone Season source shall not exceed the number of allowances that it has in its compliance account established and administered under 15A NCAC 02D .2408. For purposes of making deductions for excess emissions for the ozone season in 2008 under the NOx SIP Call (15A NCAC 02D .1400), the Administrator shall deduct allowances allocated under this Rule (15A NCAC 02D .2405) for the ozone season in 2009.
6. The emissions measurements recorded and reported according to 40 CFR Part 96 Subpart HHHH shall be used to determine compliance by each CAIR NOx Ozone Season source with its emissions limitation according to 40 CFR 96.306(c) including 96.306(c)(5) and (6).
7. The provisions of 40 CFR 96.306(d) shall be used for excess emissions.

C. 15A NCAC 02D .2404: SULFUR DIOXIDE EMISSIONS

1. The annual allocation of sulfur dioxide allowances shall be determined by EPA. The allocations for CAIR SO^2 units are listed in the table below (these allocations are from 40 CFR 73.10):

SOURCE	ALLOCATION FOR 2000-2009	ALLOCATION FOR 2010 AND LATER
ES-1 (Boiler 1)	2427	31
ES-2 (Boiler 2)	2813	34
ES-3 (Boiler 3)	6120	4491
ES-4 (Boiler 4)	5743	3207
ES-5 (Boiler 5)	5970	3886

2. The affected CAIR SO_2 sources shall comply with the requirements of 15A NCAC 02D .2400 using the trading program and banking set out in 40 CFR Part 96.
   [15A NCAC 02D .2408]
3. The owner or operator of any unit or source covered under 15A NCAC 02D .2404 shall be subject to the provisions of 40 CFR 96.206(f).
   [15A NCAC 02D .2404(f)]

Monitoring/Recordkeeping/Reporting [15A NCAC 02D .2404 and .2407(a)(2)]

3. The emissions of sulfur dioxides of a source described in Section 2.5.C.1 above shall not exceed the number of allowances that it has in its compliance account established and administered under Rule 15A NCAC 02D .2408.
4. The owner or operator of a unit covered under 15A NCAC 02D .2404 shall comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR 96.206(b) and (e) and in 40 CFR Part 96, Subpart HHH for each CAIR SO^2 unit.
5. The emissions measurements recorded and reported according to 40 CFR Part 96 Subpart HHH shall be used to determine compliance by each CAIR SO^2 source with its emissions limitation according to 40 CFR 96.206(c) including 96.206(c)(5) and (6).
6. The provisions of 40 CFR 96.206(d) shall be used for excess emissions

D. CAIR Permit Application (attached)

The permit application submitted for this facility, as approved by the Department of Environment and Natural Resources, Division of Air Quality, is part of this permit. The owner and operator of these CAIR NOx and SO^2 sources must comply with the standard requirements and special provisions set forth in the following attached application:

CAIR Permit Application dated June 25, 2007

SECTION 3 - GENERAL CONDITIONS (version 4.0 12/17/15)

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

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

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

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

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]
Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and 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. **Permit Modifications**
1. Administrative Permit Amendments [15A NCAC 02Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

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

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

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

To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

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

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

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

Excess Emissions

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

Permit Deviations

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

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

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

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

J. **Emergency Provisions** [40 CFR 70.6(g)]
The Permittee shall be subject to the following provisions with respect to emergencies:
1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
   a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
   b. the permitted facility was at the time being properly operated;
   c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
   d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

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

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

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

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

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

expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]
The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:
1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

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

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]
1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
    a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
    b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
    c. the applicable requirements under Title IV; or
    d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

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

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

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

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

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

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

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

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

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

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

BB. **Financial Responsibility and Compliance History [**15A NCAC 02Q .0507(d)(4)]
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(e)]
1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.

3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

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

EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) –** FEDERALLY-ENFORCEABLE ONLY
Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

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

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

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

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

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 02Q .0508(i)(16)]
Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 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, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.

a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
   i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
   ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
   iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

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

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

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

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

MM. **Fugitive Dust Control Requirement** [15A NCAC 02D .0540] - STATE ENFORCEABLE ONLY

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

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

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

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

ATTACHMENT
List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DENR	Department of Environment and Natural Resources
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_X	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM_{10}	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound