



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

Beverly Eaves Perdue
Governor

B. Keith Overcash, P.E.
Director

Dee Freeman
Secretary

XX

Mr. Stephen J. Immel
Fossil/Hydro Regional Manager
Duke Power Company LLC
253 Plant Allen Road
Belmont, NC 28012

Dear Mr. Immel:

SUBJECT: Air Quality Permit No. 03757T34
Facility ID: 3600039
Duke Power Company LLC; Allen Steam Station
Belmont
Gaston County
Fee Class: Title V

In accordance with your completed Air Quality Permit Application for renewal of a Title V permit received January 11, 2009 we are forwarding herewith Air Quality Permit No. 03757T34 to Duke Power Company 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 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

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 2Q .0203 (e), the Permittee shall be assessed annually in addition to any otherwise applicable fee a non-attainment RACT fee effective April 1, 2008.

Permitting Section

1641 Mail Service Center, Raleigh, North Carolina 27699-1641
2728 Capital Blvd., Raleigh, North Carolina 27604
Phone: 919-715-6235 / FAX 919-733-5317 / Internet: www.ncair.org

One
North Carolina
Naturally

Mr. Stephen J. Immel

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

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

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

This Air Quality Permit shall be effective from XX until XX is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

The changes made to the permit are summarized in the attachment to this letter. Should you have any questions concerning this matter, please contact please contact Mr. Michael Gordon, Environmental Engineer II, at (919) 715-6243.

Sincerely yours,

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

Enclosure

c: Gregg Worley, EPA Region 4

William T. Horton/Duke Power Company LLC/P.O. Box 1006, EC11E/Charlotte, NC 28201-1006

Morrisville Regional Office

Central Files

Air Quality Permit No. 03757T34
Duke Power Company LLC
Allen Steam Station
Insignificant Activities under 15A NCAC 2Q .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.	2Q .0503(8)
I-2	Alternate fuels storage and handling system - fugitive emissions. Includes storage piles of wood and cotton, unloading systems, conveyors, and feed systems. Note: Plastic products have no fugitive emissions.	2Q .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. (Note: Allen sluices ash to an ash pond; therefore, fugitive emissions are minimal.)	2Q .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.	2Q .0503(8)
I-5	Generator for supplying backup power for microwave tower, 4 kVA nameplate rating (4 kVA = 13,646 Btu per hour)	2Q .0503(8)
I-7	Gasoline and fuel oil pumps	2Q .0503(8)
I-8	Two welding shops, both vent directly to the outside atmosphere.	2Q .0503(8)
I-9	550 gallon above ground gasoline storage tank and associated unloading station, tank installed in 1998.	2Q .0503(8)
I-10	200 gallon above ground kerosene storage tank and associated unloading station, tank installed before 1973.	2Q .0503(8)
I-11	Sandblasting room, actual usage of room is much less than 8760 hours per year.	2Q .0503(8)
I-12	5,000 gallon above ground used oil storage tank and associated unloading station (tank installed in the late 1980's).	2Q .0503(8)
I-15	Two, turbine oil tanks for Units 1 & 2, 11000 gallons total capacity, and associated unloading station (tanks installed before 1973).	2Q .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).	2Q .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).	2Q .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).	2Q .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).	2Q .0503(8)
I-20	Vapor extractors which vent gases off of turbine lube oil tanks, one on each unit	2Q .0503(8)
I-21	Engine and gear lube oil storage barrels in tractor shed, 4500 gallon total capacity	2Q .0503(8)
I-22	New oil storage area, 2000 gallon total storage capacity in barrels, variety of engine, lube, and cutting oils	2Q .0503(8)
I-23	Used oil barrels at used oil staging area and groundwater remediation area, 770 gallon total capacity	2Q .0503(8)

I-24	Satellite accumulation areas for storage of used oil in barrels	2Q .0503(8)
Emission Source I.D.	Emission Source Description	Regulatory Basis for Exemption
I-25	Transformers containing oil, 107,685 gallons total capacity	2Q .0503(8)
I-26	Two transformers for yard drain sump pump, containing 540 gallons of oil	2Q .0503(8)
I-27	Circuit breaker, 115 KvSY, containing 73,229 gallons of oil	2Q .0503(8)
I-29	Various equipment containing lubricating oil including: 5 boiler feed pumps, 500 gallons total 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	2Q .0503(8)
I-30	Misc. oil trap tanks used for spill collection for oils in transformers and other yard drain locations	2Q .0503(8)
I-31	5,000 gallons capacity above ground sodium hydroxide storage tank	2Q .0503(8)
I-32	5,000 gallons capacity above ground sulfuric acid storage tank	2Q .0503(8)
I-33	250 gallon hydrazine storage tank and 75 gallon hydrazine mixing tank	2Q .0503(8)
I-34	55 gallon ammonia hydroxide storage tank and 125 gallon ammonia hydroxide mixing tank	2Q .0503(8)
I-35	Misc. cylinders containing SO ₂ , NO _x , CO, CO ₂ , chlorine, hydrogen, nitrogen, acetylene, argon, oxygen, helium, HeF, or any combination of these	2Q .0503(8)
I-36	Misc. CFC and HCFC refrigerant cylinders	2Q .0503(8)
I-37	Misc. non-CFC and HCFC refrigerant cylinders	2Q .0503(8)
I-38	Propane storage tanks for supplying fuel to microwave tower back up generator	2Q .0503(8)
I-39	Satellite accumulation areas for storage of wet paint and solvents	2Q .0503(8)
I-40	Satellite accumulation area for used antifreeze	2Q .0503(8)
I-41	Storage of new antifreeze in sealed containers	2Q .0503(8)
I-42	Containers of Oil-Dri resulting from cleanup of oil spills	2Q .0503(8)
I-43	Containers for collection of oil contaminated materials	2Q .0503(8)
I-44	Hydroveyer vents for flyash/ water mixing operations for sluicing	2Q .0503(8)
I-45	Chiller systems used for cooling of control equipment	2Q .0503(8)
I-46	Fire extinguishers located throughout the plant	2Q .0503(8)
I-47	Continuous Emissions Monitoring Systems (CEM) Equipment, which potentially emit ozone, CO ₂ , SO ₂ , and other pollutants.	2Q .0503(8)
I-48	Sewage treatment plant	2Q .0503(8)
I-49	Sewer system vents located throughout the plant	2Q .0503(8)
I-50	Vents from groundwater monitoring wells for areas contaminated with diesel fuel, gasoline, etc.	2Q .0503(8)
I-51	Laboratory for performing analyses of plant operating conditions	2Q .0503(8)
I-52	Use and storage of small amounts of pesticide and herbicide for pest and weed control.	2Q .0503(8)
I-53	Application of paints, solvents, degreasers, etc.	2Q .0503(8)
I-54	Open burning for fire brigade training and burning of refuse, brush, etc.	2Q .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	2Q .0503(8)

	SO3 injection system and storage). Only elemental sulfur generated on site may be burned.	
Emission Source I.D.	Emission Source Description	Regulatory Basis for Exemption
I-56	82-kilowatt portable diesel-fired air compressor.	2Q .0503(8)
I-57	111,000 gallons capacity No. 2 fuel oil storage tank.	2Q .0503(8)
I-58	1600 gallon above ground diesel fuel oil storage tank.	2Q .0503(8)
I-59	Two 13.0 hp portable gasoline welders.	2Q .0503(8)
I-60	Three 14.0 hp portable gasoline generators.	2Q .0503(8)
I-61	Two 85 hp diesel water pumps (used at ash basin to dewater for ash project).	2Q .0503(8)
I-62	Limestone belt scale calibration/emergency backup reclaim front end loader process	2Q .0503(8)
I-63	Gypsum storage piles	2Q .0503(8)
I-64	Gypsum belt scale calibration	2Q .0503(8)
I-65	Gypsum emergency loading	2Q .0503(8)
I-66	Gypsum collection conveyor transfer to stacker conveyor at transfer tower (120 ton per hour)	2Q .0503(8)
I-67	Gypsum stacker conveyor transfer to storage pile	2Q .0503(8)
I-68	500 hp diesel-fired engine for emergency quench pump and 100 gallon diesel storage tank	2Q .0503(8)
I-69	360 hp diesel-fired engine for emergency fire pump and 515 gallon diesel storage tank	2Q .0503(8)
I-70	Wastewater treatment facility lime silo with fabric filter	2Q .0503(8)
I-71	Liquid urea storage tank No. 1; 23,264 gallons	2Q .0503(8)
I-72	Liquid urea storage tank No. 2; 23,264 gallons	2Q .0503(8)
I-73	Liquid urea storage tank No. 3; 23,264 gallons	2Q .0503(8)
I-74	Sodium hydroxide tank; 6,000 gallons	2Q .0503(8)
I-75	Sulfuric acid tank; 5,000 gallons	2Q .0503(8)
I-76	Sulfuric acid tank; 8,500 gallons	2Q .0503(8)
I-77	Anhydrous ammonia tank; 9,500 lbs	2Q .0503(8)
I-78	Ferric sulfate tank; 8,500 gallons	2Q .0503(8)
I-79	Ferric sulfate tank; 8,500 gallons	2Q .0503(8)
	<i>Note: items I-80 through I-85 below are temporary FGD construction activities</i>	
I-80	19- Light Plants (-5 kW, diesel)	2Q .0503(8)
I-81	14- Welders- 4kW- diesel	2Q .0503(8)
I-82	7- Pump trash wackers- 1.8 kW- gasoline	2Q .0503(8)
I-83	5- Air compressors- 20hp- diesel	2Q .0503(8)
I-84	4- Generators- 6kW- gasoline	2Q .0503(8)
I-85	3- Generators- 12 hp –gasoline	2Q .0503(8)

ATTACHMENT
Air Quality Permit No. 03757T34
Duke Power Company LLC
Allen Steam Station

The following changes were made to the Duke Power Company, LLC – Allen Steam Station Air Permit No. 03757T33:

Old Page No.	New Page No.	Part, Section, or Condition No.	Change
-	-	Cover	Amended to reflect current permit number, issue date, effective date, and associated application information
-	-	Throughout	Removed references to 501(C)(2) modifications due to publication of public notice as a result of this permit
14	12-13	2.1.A.5.f	Removed opacity limits and testing requirements as a specific condition for to 2D .0536 due to incorporation of requirements and limits in the facility CAM plan located in Section 2.1.A.11.
16	13-14	2.1.A.7	Added SO ₂ requirements under 15A NCAC 2D .0606 for the existing scrubbers
17-18	42-44	2.1.A.9	Removed specific conditions that referenced 15A NCAC 2D .1400 rules and replaced with 15A NCAC 2D .2400 based specific conditions in the CAIR Permit Section 2.5
-	16	2.1.A.9	Incorporated applicable requirements of 15A NCAC 2D .2500 for Mercury emissions from Coal fired Boilers (Unit ID No.'s ES-1 to ES-5)
-	17-19	2.1.A.11	Added facility CAM plan for Coal fired Boilers (Unit ID No.'s ES-1 to ES-5)
-	20	Section 2.1.A.13	Added arsenic emissions limits voluntarily agreed upon by Duke Energy in order to avoid a Director's call (2Q .0705) requirement for air toxics
-	22-23	2.1.B.4	Added RACT requirements for ES-6 (AuxB) boiler
-	34	Section 2.2.B.2	Added facility-wide arsenic emissions limit in connection with above change
-	42-44	2.5	Added CAIR Permit Section and attached associated application as part of this permit

State of North Carolina,
Department of Environment,
and Natural Resources



Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
03757T34	03757T33	XX	XX

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 2D and 2Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 2Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: **Duke Power Company 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 Number: **3600039.08B, 3600039.09A, 3600039.09B**
Complete Application Date: **January 11, 2008, October 7, 2009, July 20, 2009**

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 XX day of XX, XXXX

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

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ATTACHMENT

List of Acronyms

Acid Rain Permit Application dated June 18, 2007

Phase II NOX Compliance Plan dated December 18, 2006

Phase II NOX Averaging Plan dated January 4, 2007

CAIR Permit Application received June 28, 2009

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

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

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-1 ¹ (U1Boiler) CAM	Coal/No. 2 fuel oil-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); And lowered fired (LOFIR) low NOx technologies *	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
ES-2 ¹ (U2Boiler) CAM	Coal/No. 2 fuel oil-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) and Separated overfire air (SOFA) low-NOx control equipment *	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
ES-3 ¹ (U3Boiler) CAM	Coal/No. 2 fuel oil-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); And lowered-fire (LOFIR) low-NOx equipment	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.			

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-4 ¹ (U4Boiler) CAM	Coal/No. 2 fuel oil-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) and Separated overfire air (SOFA) low NOx equipment	CD-8b (U4SNCR) CD-9a (U4FGT) CD-9b (U4FGT) 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), 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.		
ES-5 ¹ (U5Boiler) CAM	Coal/No. 2 fuel oil-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); And lowered fired (LOFIR) low-NOx equipment *	CD-10c (U5SNCR) CD-11a (U5FGT) CD-11b (U5FGT) 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), 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			
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
ES-8-2A (LUBF1) NSPS OOO	Dual hopper transfer to hopper conveyor No.1		
ES-8-2B (LUBF3) NSPS OOO	Dual hopper transfer to hopper conveyor No. 2		

ES-8-3 (LUBF3) NSPS OOO	Hopper conveyors No.1 and No. 2 transfer to transfer tower stock pile conveyor		
Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
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
ES-10 (LSC)	Stock pile stack out conveyor to stock pile	N/A	N/A
ES-11A (LRGF)	Stock pile transfer to grate feed of stock pile reclaim conveyor	N/A	N/A
ES-11B (LRCB) NSPS OOO	Grate feeder transfer to stock pile reclaim conveyor	N/A	N/A
ES-12 (LFPCB) NSPS OOO	Stock pile reclaim conveyor transfer to preparation plant feed conveyor in transfer tower (NSPS OOO)	N/A	N/A
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
ES-14 (LS1) NSPS OOO	Preparation plant feed conveyor with flop gate transfer to day bin No. 1		
ES-15 (LS2) NSPS OOO	Day bin No. 2 feed conveyor to day bin No. 2		
ES-16 (LWFCB) NSPS OOO	Day bin No. 1 transfer to wet ball mill No. 1 in preparation building	N/A	N/A
ES-17 (LCWFCB) NSPS OOO	Day bin No. 2 transfer to wet ball mill No. 2 in preparation building	N/A	N/A
ES-18A (WBM1) NSPS OOO	Wet ball mill No. 1 and product classifier in preparation building	N/A	N/A
ES-18B (WBM2) NSPS OOO	Wet ball mill No. 2 and product classifier in preparation building	N/A	N/A
Miscellaneous			
ES-6 (AuxB) ¹ NSPS, RACT, Subpart Dc	No. 2 fuel oil fired auxiliary utility boiler (14.6 million Btu per hour heat input capacity)	N/A	N/A
ES-7 (EmGen) ¹ MACT ZZZZ	No. 2 fuel oil-fired emergency/blackout protection diesel generator (2000 kW)	N/A	N/A
WWTBR	Wastewater metals reduction bio-reactor	N/A	N/A
Dry Flyash System			
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)

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)
Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
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)
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)
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)
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)
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)
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)
ES-AS1	Ash silo #1 (92,743 cubic feet capacity)	CD-S1Bf	Bin vent filter Ash silo #1 (8398 square feet of filter area)
ES-FTLD1	Flyash truck loading equipment (dry) from silo #1 (102.7 tons per hour maximum process rate)		
ES-AS2	Ash silo #2 (92,743 cubic feet capacity)	CD-S2Bf	Bin vent filter Ash silo #2 (8398 square feet of filter area)
ES-FTLD2	Flyash truck loading equipment (dry) from silo #2 (102.7 tons per hour maximum process rate)		
ES-FTLW1	Flyash truck loading equipment (wet) from silo #1 (102.7 tons per hour maximum process rate)	N/A	N/A
ES-FTLW2	Flyash truck loading equipment (wet) from silo #2 (102.7 tons per hour maximum process rate)	N/A	N/A
Fugitive 1	Truck transport	N/A	N/A
Fugitive 2	Truck unloading	N/A	N/A
Fugitive 3	Dry ash landfill management	N/A	N/A

* 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.

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 2D .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.

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 NO_x concentric firing system, separated over-fire air, lowered-fire low NO_x technologies; and a selective non-catalytic NO_x reduction system (ID No. CD 1b), and a cold-side electrostatic precipitator (ID No. CD-2);

Boiler (ID No. ES-2) with low NO_x concentric firing system, separated over-fire air; selective non-catalytic NO_x reduction system (ID No. CD 3b); and a cold-side electrostatic precipitator (ID No. CD-4); and

Boiler (ID No. ES-5) with a low NO_x concentric firing system, separated over-fire air, and lowered-fire low NO_x technologies; selective non-catalytic NO_x reduction system (ID No. CD 10c); and a cold-side electrostatic precipitator (ID No. CD-11) with flue gas conditioning systems consisting of an ammonia injection ash conditioner (ID No. CD-11a) and a sulfur trioxide injection ash conditioner (ID No. CD-11b).

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

Boiler (ID No. ES-3) with a low NO_x concentric firing system, separated over-fire air, lowered-fire low NO_x technologies; and a selective non-catalytic NO_x reduction system (CD-5b), a cold-side electrostatic precipitator (ID No. CD-7 (U3ESP)) with 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 NO_x concentric firing system separated over-fire air; and a selective non-catalytic NO_x reduction system (CD-8b), and a cold-side electrostatic precipitator (ID No. CD-9) with flue gas conditioning systems consisting of an ammonia injection ash conditioner (ID No. CD-9a) and a sulfur trioxide injection ash conditioner (ID No. CD-9b).

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	<p>Applies to Units 1,2 and 5 equipped with an FGD system and emitting through a common stack;</p> <p>And applies to Units 3 and 4 equipped with an FGD system and emitting through a common stack</p> <p>1.0 pounds per million Btu heat input</p>	15A NCAC 2D .0501(c)
	Phase II Acid Rain Permit Requirements (see Section 2.4)	15A NCAC 2Q .0402 (40 CFR Part 72)
	Clean Air Interstate Rule (CAIR) Permit Requirements (See Section 2.5)	15A NCAC 2D .2404
Nitrogen Oxides	<p>When burning only coal</p> <p>1.8 pounds per million Btu heat input</p>	15A NCAC 2D .0519
	<p>When burning only oil</p> <p>0.8 pounds per million Btu heat input</p>	
	<p>When burning coal and oil</p> $E = [(Ec)(Qc) + (Eo)(Qo)]/Qt$ <p>Where:</p> <p>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 $Qt = Qc + Qo$</p>	
	As defined in specific conditions	15A NCAC 2D .1416
	Phase II Acid Rain Permit Requirements (see Section 2.3)	15A NCAC 2Q .0402 (40 CFR Part 72)
	Clean Air Interstate Rule (CAIR) Permit Requirements (See Section 2.5)	15A NCAC 2D .2403 and .2405
Visible Emissions	<p>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 2D .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 2D .0535(c)</p>	15A NCAC 2D .0521

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible Emissions	State-only requirements	
	Unit 1 Boiler - 20 percent annual average opacity	15A NCAC 2D .0536
	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		
Particulate Matter	Unit 1 Boiler - 0.25 pounds per million Btu heat input Unit 2 Boiler - 0.25 pounds per million Btu heat input	15A NCAC 2D .0536
	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	PSD Avoidance per 15A NCAC 2Q .0317(a)(1)
Malfunction Abatement Plan	As defined in specific conditions	15A NCAC 2D .0535
Toxic Air Pollutants	As defined in specific conditions	15A NCAC 2D .1100
	State-only requirement Total Arsenic Emissions See Section 2.1.A.13 and Section 2.2.C (Facility-wide)	15A NCAC 2Q .0309
Excess Emissions/Good Operations And Maintenance Practices	As defined in specific conditions	15A NCAC 2D .0606

1. 15A NCAC 2D .0501: COMPLIANCE WITH EMISSION CONTROL STANDARDS

- a. In addition to any control or manner of operation necessary to meet emission standards in 15A NCAC 2D .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 2D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in 15A NCAC 2D .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 2D .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 2D .0501(c) and 2D .0608]
- i. **Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]
The Permittee shall assure compliance with 15A NCAC 2D .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). 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 2.3 pounds per million Btu heat input or records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(c).

Reporting [15A NCAC 2Q .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 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A.1.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0519.

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

The Permittee shall assure compliance with 15A NCAC 2D .0519 by determining nitrogen oxide emissions in pounds per million Btu using a continuous emissions monitoring (CEM) system meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75). Compliance with this emission standard shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75) shall be summed, and 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 2D .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 2D .0519 if these records are not maintained.
- e. **Reporting** [15A NCAC 2Q .508(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.

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

- a. Visible emissions from the boilers (ID Nos. ES-1, ES-2, ES-3, ES-4 and ES-5) shall not be more than **40 percent opacity** when averaged over a six-minute period. [15A NCAC 2D .0521(c)]
- b. For sources required to install, operate, and maintain continuous opacity monitoring systems (COMS), compliance with the 40 percent opacity limit shall be determined as follows:[15A NCAC 2D .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 2D .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 2D .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 2D .0535.

Testing [15A NCAC 2D .2601]

- c. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A.4.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- d. Opacity shall be measured using an opacity monitoring system that meets the performance specifications of Appendix B of 40 CFR Part 60, except during periods of startup prior to coal firing and malfunction events arising from sudden failure of the scrubber system or the boiler air and flue gas handling system. The opacity monitoring system shall be subjected to a quality assurance program approved by the director. The Permittee, for each unit subject to 2D .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 maintain records (electronic or paper) of the times when gases are exhausted from the bypass stack. These records shall include the reason for the bypass and the type of fuel being fired, if any.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if the monitoring is not performed, if the monitored values exceed the limitations given above, or if the records are not maintained.

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

- e. The Permittee shall submit the COMS data in accordance with the reporting requirements given in Section 2.1 A.8.c. All instances of excess emissions must be clearly identified.

4. 15A NCAC 2D .0536: PARTICULATE EMISSIONS FROM ELECTRIC UTILITY BOILERS AND 15A NCAC 2Q .0317(a)(1): AVOIDANCE OF PREVENTION OF SIGNIFICANT DETERIORATION BY POLLUTION CONTROL PROJECT DETERMINATION

- a. Particulate emissions from the utility boilers shall not exceed the following: [15A NCAC 2D .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 2Q .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 2D .2601 and 15A NCAC 2D .0536 and 15A NCAC 2Q .0317(a)(1)]

- 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.5.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0536. If the results of this test are above the more restrictive limits given in Section 2.1 A.5.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.
- e. A stack test shall be conducted for particulate matter in accordance with Method 5 or Method 17 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.5.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0536. If the result of any test is greater than the more restrictive limits given in Section 2.1 A.5.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.
- f. 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 2D .0536 or 15A NCAC 2D .0530.

Monitoring/Recordkeeping/Reporting [15A NCAC 2D .0536 and 15A NCAC 2D .0530]

- h. 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.
- i. The Permittee shall submit the COMS data in accordance with the reporting requirements given in Section 2.1 A. 8.d.
- j. All instances of excess emissions must be clearly identified.

State-Only Requirement

5. 15A NCAC 2D .0536: ANNUAL AVERAGE OPACITY FOR ELECTRIC UTILITY BOILERS

- a. Visible emissions from the utility boiler units shall not exceed the following: [15A NCAC 2D .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.

- b. After initial operation of the Allen FGD systems (CDU1/2/5FGD, CDU3/4FGD), visible emissions monitoring shall not be required whenever the FGD systems (and new stack opacity monitors) are bypassed and emissions exit the original stacks (ref. source description). Bypass periods exempted from visible emission monitoring are restricted to periods of startups on oil and malfunction events arising from a sudden failure of the scrubber system or boiler air and gas handling systems. Periods of malfunctions where there was no visible emission monitoring shall be included in percentage of monitor downtime (MD) calculation in 2.1 A.7.c. below.

Recordkeeping/Reporting [15A NCAC 2D .0536]

- c. 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.

6. 15A NCAC 2D .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 2D .0535(d). [15A NCAC 2D .0535]

Monitoring/Recordkeeping [15A NCAC 2Q .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 2D .0535 if the above records are not maintained.

7. 15A NCAC 2D .0606: SOURCES COVERED BY APPENDIX P OF 40 CFR PART 51 (CONTINUOUS OPACITY MONITORING, CONTINUOUS EMISSIONS MONITORING FOR SO₂, AND EXCESS EMISSIONS)

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

- a. The Permittee shall use a continuous opacity monitoring system (COMS) to monitor and record opacity, and a continuous emissions monitoring system (CEMS) to monitor and record Sulfur Dioxide (SO₂) emissions. However, in accordance with 40 CFR 75.18 (b) opacity monitoring shall not be required when a bypass stack is being used as described in Section 2.1.A.4 and 2.1.A.6.b above. Continuous monitoring and recordkeeping of opacity shall be performed as described in Paragraphs 2 and 3.1 of Appendix P of 40 CFR Part 51. Continuous emissions monitoring and recordkeeping of SO₂ shall be performed as described in Paragraphs 2 and 3.1.3 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.
- b. 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 are determined by 40 CFR Part 75.
- c. 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 and the scrubbers. These sources shall be deemed to be properly operated and maintained if the percentage of time, calculated on a 6-minute average in excess of 40 percent (including startups, shutdowns, and malfunctions) for opacity emissions, and the percentage of time, calculated on a 24-hour basis in excess of 2.3 pounds per million Btu (including startups, shutdowns, and malfunctions) for SO₂ emissions, 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.

Percent Excess Opacity Emission (%EE) Calculation:

$$\%EE = \frac{\text{Total Excess Emission Time}^*}{\text{Total Source Operating Time}^{***} - \text{Monitor Downtime}} \times 100$$

Percent Monitor Downtime (%MD) Calculation:

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

- * Total Excess Emission Time contains any 6-minute period greater than 40% opacity including startup, shutdown, and malfunction for opacity monitoring, and any 24-hour block average that exceeds 2.3 pounds per million Btu of SO₂ measured by the CEMS 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]

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.

For periods of excess emissions the following shall also apply:

- i. For opacity, defined as each six-minute period average greater than 40 percent, 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 SO₂, the facility shall comply with the requirements for 24-hour block averages described above in Section 2.1.7.b. Reporting shall be in accordance with Paragraphs 4 and 5.1 of Appendix P of 40 CFR Part 51.

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

State-Only Requirement

8. 15A NCAC 2D .1100 TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REPORTING REQUIREMENTS

- a. Pursuant to 15A NCAC 2D .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 1 through 5 (ES-1 through ES-5)	Cadmium	14,104 lb/yr
	Hydrogen Chloride	1,520 lb/hr
	Manganese	12,096 lb/day
	Sulfuric Acid	418.8 lb/hr and 10,051.2 lb/day
Boiler Unit 1	Ammonia	2.2 lb/hr
Boiler Unit 2	Ammonia	2.2 lb/hr
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 2Q .0508(f)]

- b. To ensure compliance with the above limits, the following restrictions shall apply:
 - i. The feed rate of waste materials shall not exceed 40,680 pounds per hour, and

- ii. The waste materials shall be limited to plastics, diaper trimmings, cotton mote, sawdust, and cresol lumber.
- iii. Sulfur trioxide and anhydrous ammonia injection ash conditioning systems are limited to Unit Nos. 3, 4, and 5.
- iv. 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.
- v. This facility is permitted to co-fire waste products consisting of plastics, diaper trimmings, cotton mote, saw dust and cresol lumber at a feed rate not to exceed 15% by weight. Different waste products are never to be burned simultaneously and never in more than one of the boilers (Units 1 through 5) at any given time.
- vi. Fugitive emissions from the storage of waste materials shall be kept to a minimum by being covered or placed in an enclosed structure. In the event that the waste materials are prepared on-site, the Regional Supervisor, Division of Air Quality, Mooresville Regional Office, shall be notified of the practices utilized for fugitive emissions control.
- vii. The Permittee is allowed to burn waste di-ammonium ethylene di-amine tetra-acetic acid (EDTA) or tetra-ammonium EDTA boiler cleaning solution in either the Unit 3, 4 or 5 boilers, subject to the conditions and stipulations stated herein.

The injection rates of waste boiler cleaning solution shall be limited to the following:

Waste cleaning solution from:	Maximum total weight of 40% di-ammonium EDTA or 46.7% tetra-ammonium EDTA per year (pounds)	Maximum injection burn rate of 40% di-ammonium EDTA or 46.7% tetra-ammonium EDTA (pounds per hour)
Unit 1 or 2	80,000 lbs (Waste solution from both units may be burned in same year)	2247
Unit 3, 4 or 5	58,250 lbs (Waste solution from only one unit may be burned in same year)	2247

The burning of waste EDTA is limited to the following conditions and stipulations:

- (A) When burning waste EDTA solution, the Permittee shall not inject ammonia for the SNCR or use the ammonia injection flue gas conditioning system during the same day.
- (B) The total amount of 40% di-ammonium EDTA or 46.7% tetra-ammonium EDTA cleaning solution injected into each boiler must be recorded on a daily basis and the record kept on file for a minimum of two years.
- (C) The Permittee shall notify the DAQ, Mooresville Regional Office, at least five days prior to waste boiler cleaning solution burning.

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

- c. For compliance purposes, within 30 days after each calendar year quarter the following shall be reported to the Regional Supervisor, Division of Air Quality:
 - i. The hourly feed rate of each waste material or a statement that there was no activity.

STATE-ONLY REQUIREMENT:

9. 15A NCAC 2D .2500: MERCURY RULES FOR ELECTRIC GENERATORS¹

a. The Permittee shall comply with all applicable provisions of 15A NCAC 2D .2500.

b. The following table contains allocations in ounces of total mercury to be emitted annually:

SOURCE	ALLOCATION FOR 2010 – 2017 (Ounces)	ALLOCATION FOR 2018 AND LATER (Ounces)
ES-1 (Boiler 1)	349	141
ES-2 (Boiler 2)	324	131
ES-3 (Boiler 3)	601	242
ES-4 (Boiler 4)	655	264
ES-5 (Boiler 5)	615	248

c. The owner or operator of any source covered under this Section shall be subject to the provisions of 40 CFR 60.4106(f). [15A NCAC 2D .2503(e)]

Monitoring, Reporting, And Recordkeeping [15 NCAC 2D .2503, .2505(a) and .2511]

- d. The emissions of mercury of an Hg budget source shall not exceed the number of allowances that it has in its compliance account according to Rule .2510 of this Section.
- e. The emissions measurements recorded and reported according to 40 CFR 60.4170 through 60.4176 shall be used to determine compliance by each source identified in this rule with its emissions limitation according to 40 CFR 60.4106(c).
- f. The provisions of 40 CFR 60.4106(d) shall be used for excess emissions.
- g. The owner or operator of a Hg budget unit covered under this Section shall comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR 60.4106(b) and (e) and in 40 CFR 60.4170 through 60.4176.
- h. The Permittee shall comply with all applicable requirements of 15A NCAC 2D .2511 “Mercury Emission Limits”.

STATE-ONLY REQUIREMENT:

10. TOXIC AIR POLLUTANT EMISSIONS LIMITATION REQUIREMENT

Pursuant to 15A NCAC 2Q .0711 “Emission Rates Requiring a Permit,” for each of the below listed toxic air pollutants (TAPs), the Permittee has made a demonstration that facility-wide actual emissions (excluding sources burning unadulterated fossil fuel) do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 2Q .0711. The facility shall be operated and maintained in such a manner that emissions of any listed TAPs from the facility, including fugitive emissions, will not exceed TPERs listed in 15A NCAC 2Q .0711.

- a. A permit to emit any of the below listed TAPs shall be required for this facility if actual emissions from all sources will become greater than the corresponding TPERs.
- b. PRIOR to exceeding any of these listed TPERs, the Permittee shall be responsible for obtaining a permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 2D .1100 "Control of Toxic Air Pollutants".
- c. In accordance with the approved application, the Permittee shall maintain records of operational information demonstrating that the TAP emissions do not exceed the TPERs as listed below:

¹ Sections 15A NCAC 2D .2509 and .2511 are state-enforceable. All other sections of 15A NCAC .2500 will not be enforced at this time.

Pollutant (CAS Number)	TPERs Limitations			
	Carcinogens (lbs/yr)	Chronic Toxicants (lbs/day)	Acute Systemic Toxicants (lbs/hr)	Acute Irritants (lbs/hr)
Arsenic (As)	0.016			
Chromium VI (Cr ⁺⁶)	0.0056			
Mercury (Hg)		0.013		
Nickel (Ni) (7440-02-0)		0.13		

d. The injection rates of waste boiler cleaning solution shall be limited to the following:

Waste cleaning solution from:	Maximum total weight of 40% di-ammonium EDTA or 46.7% tetra-ammonium EDTA per year (pounds)	Maximum injection burn rate of 40% di-ammonium EDTA or 46.7% tetra-ammonium EDTA (pounds per hour)
Unit 1 or 2	80,000 lbs (Waste solution from both units may be burned in same year)	2247
Unit 3, 4 or 5	58,250 lbs (Waste solution from only one unit may be burned in same year)	2247

- e. The Permittee shall sample and analyze the spent EDTA solution for the arsenic, chromium VI, mercury and nickel concentrations (mg/g) and submit the results to DAQ within 90 days after the initial boiler cleaning using EDTA.
- f. DAQ will review the results for the toxic air pollutants in g above for comparison with estimates given in the application and, in the event it is determined that any of the TPERs are exceeded, the Permittee shall be required to submit a modeling analysis and application for a permit revision to place a toxic emission limit(s) in the permit.

11. 15A NCAC 2D .0614: COMPLIANCE ASSURANCE MONITORING

- 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 2D .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 2Q .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	<p>An excursion is defined as an opacity value (based on a 3-hour block average) greater than:</p> <p style="text-align: center;"> 19 Percent – Unit 1 20 Percent – Unit 2 18 Percent – Unit 3 19 Percent – Unit 4 17 Percent – Unit 5 </p> <p>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</p> <p>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.</p> <p>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.</p>
C. Performance Criteria <ol style="list-style-type: none"> 1. Data Representativeness 2. Verification of Operational Status 3. QA/QC Practices and Criteria 4. Monitoring Frequency 5. Data Averaging Period 6. Data Collection 	<p>The COMS location meets the specifications of 40 CFR Part 75 and 40 CFR 60, Appendix B.</p> <p>Not applicable, use of monitoring equipment is proposed.</p> <p>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.</p> <p>Continuous</p> <p>3-hour block average of 6-minute averages starting at midnight each day. (Total of eight 3-hour block periods)</p> <p>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.</p>

- 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 2Q .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.11 are not met then the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0614

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

FEDERAL-ONLY REQUIREMENT:

12. 40 CFR 52 Subpart II: EMISSIONS ALLOCATIONS FOR UTILITY COMPANIES *

- a. The total nitrogen oxide (NOx) emissions from all the coal-fired boilers and combustion turbines that are not listed in 15A NCAC 2D .1417 at Duke Power Company's Allen, Belews Creek, Buck, Cliffside, Dan River, Marshall, and Riverbend facilities shall not exceed: [15A NCAC 2D .1416(b)]
 - i. 17,816 tons per ozone season for 2004;
 - ii. 22,270 tons per ozone season for 2005; and
 - iii. 16,780 tons per ozone season for 2006 and each year thereafter until revised according to 15A NCAC 2D .1420.
- b. Furthermore, except as allowed under Section 2.1 A.12.c below, individual sources at these facilities named in the table in this Subparagraph shall not exceed during the ozone season the nitrogen oxide emission allocations in the table. [15A NCAC 2D .1416(b)]

* Note, regulatory citations for 2D .1400 rules refer to those in 40 CFR 52 Subpart II only. This rule will be superceded by the 2D .2400 (CAIR) requirements in Section 2.5 when the EPA approves the CAIR rules for incorporation into North Carolina's State Implementation Plan.

Utility Boiler	EMISSION ALLOCATIONS (TONS/OZONE SEASON)		
	2004	2005	2006 AND LATER
1	350	437	329
2	355	444	334
3	590	737	556
4	528	660	497
5	578	722	544

- c. Sources (ID Nos. Unit 1 through Unit 5) may comply with the requirements of 15A NCAC 2D .1416 using the nitrogen oxide budget-trading program set out in 15A NCAC 2D .1419. If a source uses the nitrogen oxide budget trading program to comply, it shall have installed and begun operating by May 1, 2004, a continuous emissions monitoring system that complies with 40 CFR Part 96. [15A NCAC 2D .1416(d) and 15A NCAC 2D .1419 (b)(2)]

d. **Monitoring/Recordkeeping**

[15A NCAC 2Q .0508(f), 15A NCAC 2D .1416(e), and 15A NCAC 2D .1404(d) and (h)]

The Permittee shall assure compliance with 15A NCAC 2D .1416 by determining nitrogen oxide emissions in tons per ozone season using a continuous emissions monitoring (CEM) system that meets the requirements of 40 CFR Part 75 Subpart H, with such exceptions as allowed under 40 CFR Part 75, Subpart H or 40 CFR 96. The Permittee shall comply with the recordkeeping requirements of 40 CFR 96, Budget Trading Program for State Implementation Plans. All instances of deviations from the requirements of this permit must be clearly identified. If nitrogen oxide emissions for any ozone season exceed the allowances held in the Compliance Account as of November 30 of each year or the recordkeeping requirements are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1416.

Reporting [15A NCAC 2Q .0508(f), and 15A NCAC 2D .1404(g) and (h)]

- e. The Permittee shall comply with the reporting requirements of 40 CFR 96, Budget Trading Program for State Implementation Plans. The Permittee shall report no later than October 30 the tons of nitrogen oxides emitted during the previous ozone season. One copy of this report shall be sent to the appropriate Regional Office and one copy shall be sent to the Stationary Source Compliance Supervisor at the address shown in General Condition D. All instances of deviations from the requirements of this permit must be clearly identified.

State-Only Requirement:

13. 15A NCAC 2Q .0309: TERMINATION, MODIFICATION, AND REVOCATION OF PERMITS for AVOIDANCE OF 15A NCAC 2Q .0705 APPLICABILITY

- a. Pursuant to 15A NCAC 2Q .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 2Q .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.13.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0705.

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

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

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

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 2D .0503
Sulfur Dioxide	0.5 weight percent sulfur content fuel oil	15A NCAC 2D .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 2D .0521
Nitrogen Oxides	Annual Boiler Tune-up requirement	15A NCAC 2D .1407
N/A	Recordkeeping only; monthly fuel records	15A NCAC 2D .0524 (40 CFR Part 60 Subpart Dc)

1. 15A NCAC 2D .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 2D .0503 (a)]

Testing [15A NCAC 2D .2601]

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

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from these sources to assure compliance with this regulation.

2. 15A NCAC 2D .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 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc, including Subpart A "General Provisions." [15A NCAC 2D .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 2D .0524]

Monitoring/ Recordkeeping [15A NCAC 2Q .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 2D .0524 if these records are not maintained.

Reporting [15A NCAC 2Q .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:
- 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 2D .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 2D .0521(c)]

Testing [15A NCAC 2D .2601]

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

Monitoring [15A NCAC 2Q .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 15A NCAC 2D .2601 and 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 2Q .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 2Q .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 2D .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 2D .1414. The Permittee shall maintain records of all tune-ups performed for each source according to 2D .1404 [15A NCAC 2D .1407]
 - i. Compliance was achieved through a demonstration to certify compliance without source modification [15 NCAC 2D .1403(c)(1)(C)]

Testing [15A NCAC 2D. 2601]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D. 2601 and General Condition JJ.

Monitoring [15A NCAC 2Q .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 2D .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 2D .1407.

Recordkeeping [15A NCAC 2Q .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 2D .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 2D .1407 if these records are not maintained.

Reporting [15A NCAC 2Q .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.

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 2D .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 2D .0521
HAPS	Notification Requirement only	15A NCAC 2D .1111 40 CFR 63 Subpart ZZZZ

1. 15A NCAC 2D .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 2D .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 2D .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 2D .0521(d)]

Testing [15A NCAC 2D .2601]

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

Monitoring [15A NCAC 2Q .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 15A NCAC 2D .2601 and 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 2Q .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 2Q .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 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT – 40 CFR PART 63 SUBPART ZZZZ)

- a. **Notification and Recordkeeping** [15A NCAC 2Q .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 (IDD 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 2D .0540 [See Facility Wide Requirements - Section 2.2 A.1]	15A NCAC 2D .0510
Particulate Matter	0.022 grains per dry standard cubic foot for stack emissions and building vents	15A NCAC 2D .0524 [40 CFR 60.672(a)(1)]
Visible Emissions	Seven percent opacity for stack emissions and building vents	15A NCAC 2D .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 2D .0524 [40 CFR 60.672(b)]
Visible Emissions	No visible emissions from buildings, excluding building vents	15A NCAC 2D .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 2D .0540

1. 15A NCAC 2D .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 CFR 60.675 and 15A NCAC 2Q .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 2Q .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 15A NCAC 2D .2601 and General Condition JJ.

Monitoring [15A NCAC 2Q .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 2D .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 2D .0524; UNLESS, an approved Method 9 opacity determination meeting the requirements of 15A NCAC 2D .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 2D .0524.

Recordkeeping [15A NCAC 2Q .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 2D .0524 if these records are not maintained.

Reporting [15A NCAC 2Q .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 2D .0540 [See Multiple Emission Sources - Section 2.2 A.1]	15A NCAC 2D .0510
Visible Emissions	20 percent opacity	15A NCAC 2D .0521
Particulate Matter	Control requirements for non-process fugitive dust [See Multiple Emissions Sources - Section 2.2 A.2.]	15A NCAC 2D .0540

1. 15A NCAC 2D .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 2D .2601]

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

Monitoring [15A NCAC 2Q .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 2D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 2D .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 2D .0521.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

Reporting [15A NCAC 2Q .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	$E = 4.10 \times (P)^{0.67} \quad \text{for } P \leq 30 \text{ tons/hr, or}$ $E = 55.0 \times (P)^{0.11} - 40 \quad \text{for } P > 30 \text{ tons/hr}$ <p style="text-align: center;">Where:</p> <p>E = allowable particulate emission rate in pounds per hour P = process weight rate in tons per hour</p>	15A NCAC 2D .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 2D .0521
Affected Emission Source: ID No. Fugitive 3		
PM-10	no observation of visible dust emissions without taking corrective action.	15A NCAC 2Q.0317(a)(1) (PSD avoidance)

1. 15A NCAC 2D .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 2D .0515(a)]

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

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

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 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

Monitoring/Recordkeeping [15A NCAC 2Q .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 2D .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 2D .0515 if these records are not maintained.

Reporting [15A NCAC 2Q .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 2D .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 2D .2601]

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

Monitoring [15A NCAC 2Q .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 2D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 2D .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 2D

.0521.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

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

- a. In order to avoid applicability of 15A NCAC 2D .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 2Q .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. The Permittee shall maintain daily records indicating whether any visible emissions are observed from truck loading. 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 2D .0530 if no corrective action is taken after visible dust emissions are observed or if these records are not maintained.

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 (IDD 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 2D .0540	15A NCAC 2D .0510
Particulate Matter	Control requirements for non-process fugitive dust	15A NCAC 2D .0540

1. 15A NCAC 2D .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 2D .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 2D .0524 - 40 CFR 60, Subpart OOO) and 2.1 E.1. (15 A NCAC 2D .0521) are not exceeded.

Testing [15A NCAC 2D .2601]

- 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 2D .0510.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .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 2D .0510 if monitoring, recordkeeping, and recordkeeping are not conducted in accordance with the applicable permit condition

2. 15A NCAC 2D .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 2D .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 2D .1100

State-Only Requirement

1. 15A NCAC 2D .1100: CONTROL OF TOXIC AIR POLLUTANTS

Pursuant to 15A NCAC 2D .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 2Q .0309: TERMINATION, MODIFICATION, AND REVOCATION OF PERMITS for AVOIDANCE OF 15A NCAC 2Q .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 2Q.0309 (2Q .0705 avoidance)

Testing [15A NCAC 2Q .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 2D .0705.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .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 2Q .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 2D .0501(c)(11), testing for mercury emissions, is not applicable because 15A NCAC 2D .0537, "Control of Mercury Emissions", does not apply to fuel combustion.
2. 15A NCAC 2D .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 2D .0521(d), visible emissions shall not exceed 20% opacity, is not applicable because these sources were manufactured as of July 1, 1971.
4. 15A NCAC 2D .0607, calibration and maintenance requirements do not apply as these sources do not combust wood and wood-fossil fuels.
5. 15A NCAC 2D .1110, NESHAP promulgated in 40 CFR Part 61, is not applicable because no NESHAP evaluation has been triggered.
6. 15A NCAC 2D .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 2D .0900.
7. 15A NCAC 2D .0902(f)(1), exemptions from VOC rules in 15A NCAC 2D .0900, are not applicable because there are no rules applicable to these sources in 2D .0900.
8. 15A NCAC 2D .0903(b) and (c), recordkeeping on VOC emissions and control equipment, is not applicable because there are no rules applicable to these sources in 2D .0900.
9. 15A NCAC 2D .0903(d)(2), recordkeeping on VOC source compliance, is not applicable because there are no rules applicable to these sources in 2D .0900.
10. 15A NCAC 2D .0903(e), recordkeeping on VOC's, is not applicable because there are not rules applicable to these sources in 2D .0900.
11. 15A NCAC 2D .0912(c), testing on VOC's, is not applicable because there are no rules applicable to these sources in 2D .0900.
12. 15A NCAC 2D .0912(d), reporting on VOC's and corrective actions, is not applicable because there are no rules applicable to these sources in 2D .0900.
13. 15A NCAC 2D .0912(e), testing on VOC's, is not applicable because there are no rules applicable to these sources in 2D .0900.
14. 15A NCAC 2D .0939(a), testing for VOC's for sources subject to 2D .0912, is not applicable because there are no rules applicable to these sources in 2D .0900.
15. 15A NCAC 2D .0939(b), testing for VOC's for sources subject to 2D .0912, is not applicable because there are no rules applicable to these sources in 2D .0900.
16. 15A NCAC 2Q .0508(p)(1), recordkeeping on alternative operating scenarios, is not applicable because there are no alternative operating scenarios.
17. 15A NCAC 2Q .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 2D .0503(a), particulates from fuel burning indirect heat exchangers, is not applicable since the boilers are covered under 15A NCAC 2D .0536 for particulate emissions.

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

1. 15A NCAC 2D .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 2D .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 2D .0536, emission limits for particulate matter from utility boilers, is not applicable because this boiler is not a utility boilers.
4. 15A NCAC 2D .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 2D .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 2Q .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 2D .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

Effective: January 1, 2007 through December 31, 2011

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 2Q .0400 and 2Q .0500, and other applicable Laws.

B. SO₂ Allowance Allocations and NO_x Requirements for each affected unit

	SO ₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73.	2007	2008	2009	2010	2011
			2427*	2427*	2427*	31*
U1Boiler (ID No. ES-1)	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 2007 through 2011.					
	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 0.26 lb/MMBtu or has an annual heat input less than 11,331,694 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.						

	SO₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73.	2007	2008	2009	2010	2011
		2813*	2813*	2813*	34*	34*
U2Boiler (ID No. ES-2)	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 2007 through 2011.					
	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 0.27 lb/MMBtu or has an annual heat input less than 9,413,342 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.						

	SO₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73.	2007	2008	2009	2010	2011
		6120*	6120*	6120*	4491*	4491*
U3Boiler (ID No. ES-3)	NO_x limit					
	<p>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 2007 through 2011.</p> <p>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.</p> <p>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 0.26 lb/MMBtu or has an annual heat input less than 17,474,154 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.</p> <p>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.</p> <p>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.</p>					

	SO₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73.	2007	2008	2009	2010	2011
		5743*	5743*	5743*	3207*	3207*
U4Boiler (ID No. ES-4)	<p>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 2007 through 2011.</p> <p>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.</p> <p>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 0.26 lb/MMBtu or has an annual heat input less than 18,980,416 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.</p> <p>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.</p> <p>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.</p>					

	SO₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73.	2007	2008	2009	2010	2011
		5970*	5970*	5970*	3886*	3886*
U5Boiler (ID No. ES-5)	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 2007 through 2011.					
	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 0.35 lb/MMBtu or has an annual heat input less than 18,714,463 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 SO₂ 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 18, 2007
- Phase II NO_x Compliance Plan dated December 18, 2006
- Phase II NO_x Averaging Plan dated January 4, 2007

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

STATE-ONLY REQUIREMENT:

A. 15A NCAC 2D .2403: NITROGEN OXIDE EMISSIONS

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

Monitoring/Recordkeeping/Reporting [15A NCAC 2D .2403, and 15A NCAC 2D .2407(a)]

4. The emissions of nitrogen oxides of a CAIR NO_x 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 NO_x 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.

STATE-ONLY REQUIREMENT:

B. 15A NCAC 2D .2405: NITROGEN OXIDE EMISSIONS DURING OZONE SEASON

1. Ozone season NO_x emissions from Duke Energy Carolinas LLC's Allen Steam Station facility shall not exceed, except as provided in 15A NCAC 2D .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 2D .2405(a)(1) and (b)]
2. The affected CAIR NO_x Ozone Season sources shall comply with the requirements of 15A NCAC 2D .2400 using the trading program and banking set out in 40 CFR Part 96.
 [15A NCAC 2D .2408]
3. The owner or operator of any unit or source covered under 15A NCAC 2D .2405 shall be subject to the provisions of 40 CFR 96.306(f).

[15A NCAC 2D .2405(g)]

Monitoring/Recordkeeping/Reporting [15A NCAC 2D .2405(d) and (e), and 15A NCAC 2D .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 2D .2408. For purposes of making deductions for excess emissions for the ozone season in 2008 under the NOx SIP Call (15A NCAC 2D .1400), the Administrator shall deduct allowances allocated under this Rule (15A NCAC 2D .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.

STATE-ONLY REQUIREMENT:**C. 15A NCAC 2D .2404: SULFUR DIOXIDE EMISSIONS**

1. The annual allocation of sulfur dioxide allowances shall be determined by EPA. The allocations for CAIR SO² 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 SO₂ sources shall comply with the requirements of 15A NCAC 2D .2400 using the trading program and banking set out in 40 CFR Part 96.
[15A NCAC 2D .2408]
3. The owner or operator of any unit or source covered under 15A NCAC 2D .2404 shall be subject to the provisions of 40 CFR 96.206(f).
[15A NCAC 2D .2404(f)]

Monitoring/Recordkeeping/Reporting [15A NCAC 2D .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 2D .2408.
4. The owner or operator of a unit covered under 15A NCAC 2D .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 SO₂ 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 SO₂ 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 SO₂ sources must comply with the standard requirements and special provisions set forth in the following attached application:

CAIR Permit Application received June 28, 2007

E. EPA Approval of Section 15A NCAC 2D .2400

Notwithstanding the language of Sections 2.5 A through C above, in the event EPA approves Section 15A NCAC 2D .2400, the requirements of Section 15A NCAC 2D .2400 and Sections 2.5 A through C above shall be both State and Federally enforceable

SECTION 3 - GENERAL CONDITIONS

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

- A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
 2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
 3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
 4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
 5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
 6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.
- B. **Permit Availability** [15A NCAC 2Q .0507(k) and .0508(i)(9)(B)]
- The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environment and Natural Resources upon request.
- C. **Severability Clause** [15A NCAC 2Q .0508(i)(2)]
- In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.
- D. **Submissions** [15A NCAC 2Q .0507(e) and 2Q .0508(i)(16)]
- Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

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

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 2Q .0508(i)(2)]

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

F. **Circumvention** - STATE ENFORCEABLE ONLY

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

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 2Q .0514]

The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.

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

The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q.0524 and 2Q .0505.

3. Minor Permit Modifications [15A NCAC 2Q .0515]

The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.

4. Significant Permit Modifications [15A NCAC 2Q .0516]

The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.

5. Reopening for Cause [15A NCAC 2Q .0517]

The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Reporting Requirements

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

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

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

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

a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:

- i. the changes are not a modification under Title I of the Federal Clean Air Act;
- ii. the changes do not cause the allowable emissions under the permit to be exceeded;
- iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
- iv. the Permittee shall attach the notice to the relevant permit.

c. The written notification shall include:

- i. a description of the change;
- ii. the date on which the change will occur;
- iii. any change in emissions; and
- iv. any permit term or condition that is no longer applicable as a result of the change.

- d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 2Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 2Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 2D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 2Q .0523(c).

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

[15A NCAC 2D .0535(f) and 2Q .0508(f)(2)]

“Excess Emissions” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 2D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 2Q .0700. (*Note: Definitions of excess emissions under 2D .1110 and 2D .1111 shall apply where defined by rule.*)

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

Excess Emissions

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

Permit Deviations

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

I.B. Other Requirements under 15A NCAC 2D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 2D .0535, including 15A NCAC 2D .0535(c) as follows:

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

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

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

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

K. Permit Renewal [15A NCAC 2Q .0508(e) and 2Q .0513(b)]

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

L. Need to Halt or Reduce Activity Not a Defense [15A NCAC 2Q .0508(i)(4)]

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

M. Duty to Provide Information (submittal of information) [15A NCAC 2Q .0508(i)(9)]

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

N. **Duty to Supplement** [15A NCAC 2Q .0507(f)]

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

O. **Retention of Records** [15A NCAC 2Q .0508(f) and 2Q .0508 (l)]

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

P. **Compliance Certification** [15A NCAC 2Q .0508(n)]

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

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

Q. **Certification by Responsible Official** [15A NCAC 2Q .0520]

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

R. **Permit Shield for Applicable Requirements** [15A NCAC 2Q .0512]

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

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 2Q .0519]

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

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or

5. the Director finds that termination, modification, or revocation and re-issuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 2Q .0503]

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

U. **Property Rights** [15A NCAC 2Q .0508(i)(8)]

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

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

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

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 2Q .0508(i)(10)]

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

X. **Annual Emission Inventory Requirements** [15A NCAC 2Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 2Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 2Q .0107 and 2Q. 0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 2Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 2Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 2Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 2Q .0100 and .0300.

AA. Standard Application Form and Required Information [15A NCAC 2Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 2Q .0505 and .0507.

BB. Financial Responsibility and Compliance History [15A NCAC 2Q .0507(d)(3)]

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

CC. Refrigerant Requirements (Stratospheric Ozone and Climate Protection) [15A NCAC 2Q .0501(e)]

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

DD. Prevention of Accidental Releases - Section 112(r) [15A NCAC 2Q .0508(h)]

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

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

FEDERALLY-ENFORCEABLE ONLY

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

FF. Title IV Allowances [15A NCAC 2Q .0508(i)(1)]

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

GG. Air Pollution Emergency Episode [15A NCAC 2D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 2D .0300.

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

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 2D .0202(b).

II. Ambient Air Quality Standards [15A NCAC 2D .0501(c)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 2D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. General Emissions Testing and Reporting Requirements [15A NCAC 2Q .0508(i)(16)]

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

1. The Permittee shall submit a completed Protocol Submittal Form to the DAQ Regional Supervisor at least 45 days prior to the scheduled test date. A copy of the Protocol Submittal Form may be obtained from the Regional Supervisor.
2. The Permittee shall notify the Regional Supervisor of the specific test dates at least 15 days prior to testing in order to afford the DAQ the opportunity to have an observer on-site during the sampling program.
3. During all sampling periods, the Permittee shall operate the emission source(s) under maximum normal operating conditions or alternative operating conditions as deemed appropriate by the Regional Supervisor or his delegate.
4. The Permittee shall submit **two** copies of the test report to the DAQ. The test report shall contain at a minimum the following information:
 - a. a description of the training and air testing experience of the person directing the test;
 - b. a certification of the test results by sampling team leader and facility representative;
 - c. a summary of emissions results and text detailing the objectives of the testing program, the applicable state and federal regulations, and conclusions about the testing and compliance status of the emission source(s);
 - d. a detailed description of the tested emission source(s) and sampling location(s) process flow diagrams, engineering drawings, and sampling location schematics should be included as necessary;
 - e. all field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
 - f. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
 - g. documentation of facility operating conditions during all testing periods and an explanation relating these operating conditions to maximum normal operation. If necessary, provide historical process data to verify maximum normal operation.
5. The testing requirement(s) shall be considered satisfied only upon written approval of the test results by the DAQ.
6. The DAQ will review emission test results with respect exclusively to the specified testing objectives as proposed by the Permittee and approved by the DAQ.

KK. Reopening for Cause [15A NCAC 2Q .0517]

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

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 2Q .0508(i)(16)]

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

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

As required by 15A NCAC 2D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 2D .0540(f). "Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. Specific Permit Modifications [15A NCAC 2Q .0501 and .0523]

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

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

ATTACHMENT
List of Acronyms

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