ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

xx

Mr. Jeffrey A. Joyce
General Manager II, Cliffside Steam Station
Duke Energy Carolinas, LLC
573 Duke Power Road
Mooresboro, NC 28114

SUBJECT: Air Quality Permit No. 04044T44
Facility ID: 8100028
Duke Energy Carolinas, LLC - Cliffside Steam Station
Mooresboro, North Carolina
Rutherford County
Fee Class: Title V
PSD Class: Major

Dear Mr. Joyce:

In accordance with your completed Air Quality Permit Applications for a 502(b)(10) change and the 2nd step 02Q .0501(b)(2) of your Title V permit received October 16, 2018 and September 30, 2019, respectively, we are forwarding herewith Air Quality Permit No. 04044T44 to Duke Energy Carolinas, LLC - Cliffside Steam Station, Mooresboro, Rutherford County, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

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

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.

Rutherford County has triggered increment tracking under PSD for PM_{10}. However, this modification does not consume or expand increments for any pollutants.

This Air Quality Permit shall be effective from xx and shall expire on December 31, 2023. This Air Quality Permit is nontransferable to future owners and operators and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Rahul P. Thaker, P.E., QEP, at (919) 707-8740.

Sincerely yours,

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

Enclosure

c: Heather Ceron, EPA Region 4
Asheville Regional Office
Connie Horne (cover letter only)
Central Files

ATTACHMENT to Cover Letter to Air Quality Permit No. 04044T44
Insignificant Activities under 15A NCAC 02Q .0503(8)

Emission Source I.D.	Emission Source Description
I-2	Unit 5 Ash and ash handling system - fugitive emissions. Includes ash removal system, ash loading system, leaks in ash collection pipes and hopper system, emissions during maintenance, hauling of ash in trucks, duct vacuum truck unloading, and associated operations.
I-3	Non-stack emissions of hydrazine and ammonia from throughout the plant (blow-down vents, overpressure vents, deaerator vents, valve leakage, purge vents, etc.) Condensate and feed water systems have potential for fugitive emissions of hydrazine and ammonia from boiler blow-down systems, deaerating feed water heater venting, and steam jet air ejectors.
I-4	Unit 5 Cooling towers - fugitive emissions of chlorine and biocides, two towers with 9 cells in each tower
I-5	Propane generators used for backup power for microwave towers, 4 kVA
I-6	Portable welder, 300 amp, 16 Hp, gasoline-fired
I-7	Portable generator, 4.5 kVA, gasoline-fired
I-8	Portable generator, 5 Hp / 2.25 kVA, gasoline-fired
I-9	Portable hydraulic pump, 16 Hp gasoline-fired
I-10	Gasoline, fuel oil, and kerosene pumps
I-11	Two welding shops, both vent directly to the outside atmosphere
I-12	Sandblasting room, used for site maintenance, exhaust vents back into room
I-13	Glove-box sandblasting booths, used for site maintenance
I-14	50,000 gallon aboveground auxiliary fuel-oil storage tank for Unit 5 and associated unloading station, contract awarded on tank in 1972 or early 1973
I-15	35,000 gallon aboveground auxiliary fuel-oil storage tank for Unit 5 and associated unloading station, tank installed in 1992
I-21	1,000 gallon above ground unleaded gasoline storage tank, and associated unloading stations
I-22	4,000 gallon used-oil storage tank, and associated loading area
I-25	Main turbine lube-oil tank for Unit 5, 10,290 gallon capacity
I-27	Main turbine lube-oil storage tank for Unit 5, 16,000 gallon capacity (normally empty), tank installed in 1972
I-28	New-oil storage areas (barrels, cans)
I-29	Satellite accumulation areas for storage of used-oil in drums
I-30	Transformer AT-1 for Unit 5, 15,906 gallons of transformer oil
I-31	Transformer AT-2 for Unit 5, 20,764 gallons of transformer oil
I-32	Transformer 5 UT for Unit 5, 13,380 gallons of transformer oil
I-33	Transformer 5 AT for Unit 5, 3,907 gallons of transformer oil
I-34	Transformers 5CTA and 5CTB for Unit 5, 27,810 gallons total capacity of transformer oil
I-40	Oil circuit breakers for Unit 5, 33,507 gallons of oil
I-42	Various equipment for Unit 5 containing lubricating oil: 2 boiler feed pumps, 1,800 gal. total Heater drain pump, 20 gal. total 3 hotwell pumps, 24 gal. total 6 pulverizer mills, 2,640 gal. total

Emission Source I.D.	Emission Source Description
	4 ID and FD fans, 110 gal. total 18 cooling tower fans, 400 gal. total 4 CCW pumps, 50 gal. total 2 pre-heaters, 100 gal. total 4 boiler circulator pumps, 180 gal. total
I-43	Misc. oil trap tanks used for spill collection for oils in transformers and other yard drain locations
I-44	6,270 gallon aboveground caustic - sodium hydroxide (NaOH) storage tank
I-45	Caustic - sodium hydroxide (NaOH) day storage tank
I-46	6,267 gallon aboveground sulfuric acid (H_2SO_4) storage tank
I-47	5,000 gallon aboveground sulfuric acid (H_2SO_4) storage tank at ash basin for injecting acid into effluent for pH control
I-48	Hydrazine (N_2H_4) mixing tank and storage drums
I-49	Misc. cylinders containing: SO_2, NOx, NO_2, CO, CO_2, chlorine, hydrogen, nitrogen, acetylene, argon, oxygen, helium, HeF, or any combination of these
I-50	Misc. CFC and HCFC refrigerant cylinders
I-51	Misc. non-CFC and non-HCFC refrigerant cylinders
I-52	Propane storage tanks for supplying fuel to microwave generator
I-53	Propane cylinders for light-off on auxiliary boilers
I-54	Satellite accumulation areas for storage of waste paint and solvents
I-55	Satellite accumulation area for used antifreeze
I-56	Storage area for new antifreeze in sealed containers
I-57	Misc. containers of Oil-Dri and oil contaminated materials resulting from cleanup of oil spills
I-58	Hydroveyer vents for flyash / water mixing operations for sluicing
I-59	Chiller systems used for cooling of control equipment
I-60	Fire extinguishers located throughout the plant
I-61	Continuous Emissions Monitoring System (CEMS) equipment, which emit ozone and other potential pollutants
I-62	Sewage treatment plants
I-63	Sewer system vents located throughout the plant
I-64	Vents from groundwater monitoring wells for areas contaminated with diesel fuel, gasoline, etc. (None on site at current time).
I-65	Laboratory for performing analyses of plant operating conditions
I-66	Miscellaneous parts washers
I-67	Use and storage of small quantities of pesticides and herbicides for on-site pest and weed control
I-68	Application of paints, solvents, degreasers, etc.
I-69	Open burning for fire brigade training
I-70	Application of dust suppression additives
I-71	Application of boron-oxide based slagging agents
I-73	Steam cleaner - 385,000 Btu/hr, fuel oil 2.75 GPH
I-74	Portable kerosene space heaters - 110,000 Btu
I-75	Barbecue grill with LP gas

Emission Source I.D.	Emission Source Description
I-76	Unit 5 Precipitator transformers (32) - 6080 gallons of oil
I-79	2000 gallon ammonia tank for flue gas conditioning
I-80	Two 45,000 gallon anhydrous ammonia tanks for SCR
I-81	Pelletized sulfur process storage tank
I-83	600-1000 lbs elemental sulfur/year blended on coal pile (intermittently produced from occasional spillage, clogging, and leakage resulting from maintenance of SO3 injection system and storage). Only elemental sulfur generated on site may be burned.
I-84	850 gallon above ground diesel fuel oil storage tank
I-85	One limestone hydraulic conveyor (60 tons/hr maximum throughput)
I-86	Two 60,000 gallon anhydrous ammonia tanks for Unit 6 SCR
I-87	Honda GX270 gas powered air compressor 270 cm/3
I-88	Kohler Command Pro 9.5 277 cc walk behind floor brush
I-89	Honda GX 100 water pump for salt brine
I-90	Honda GX 160 water pump for salt brine
I-91	Booster Fan Lube Oil Reservoirs (2 pairs, 95 gallons each) and Hydraulic Oil Reservoirs (2 pairs, 90 gallons each, 370 gallons total)
I-92	Oxidation Air Blowers containing lube oil (3 blowers, 312 gallons total)
I-93	FGD Ball Mill A and B lube oil reservoirs (2 reservoirs, 240 gallons total)
I-94	Oil storage drums in FGD Absorber Building (4 drums, 220 gallons total)
I-95	Oil storage drums in FGD Gypsum Dewatering Building (5 drums, 440 gallons total)
I-97	Coal Handling Car Positioner containing lube oil (60 gallons)
I-98	Coal Handling Car Holder containing lube oil (60 gallons)
I-99	Chemical holding tanks • Two - 5,000 gallon Sulfuric Acid storage tank • Four - 5,000 gallon caustic - Sodium Hydroxide storage tank • Four - 5,000 gallon Sodium Hypochlorite storage tanks • Two - 5,000 gallon Ferric Sulfate storage tank • One – 5,000 gallon MercControl 8034 storage tank
I-100	Chemical Totes: • Hydrazine • Sulfuric Acid • Nalco Polymer • Caustic • Ammonia Hydroxide • Citric Acid • Sodium Bisulfite • Ferric Chloride • Nalmet 1689 • Core Shell • Gorilla Snot • Dirt Glue
I-101	FGD Transformers - 2 transformers with 8,312 gallons each, 16,624 gallons total
I-102	Unit 6 GSU Transformers containing mineral oil (3), 45,732 gallons total

Emission Source I.D.	Emission Source Description
I-103	Unit 6 GSU Transformers containing mineral oil (1 spare), 15,244 gallons
I-104	Unit 6 Auxiliary Transformers containing mineral oil (3 transformers, 7,715 gallons each, 23,145 gallons total)
I-106	Unit 6 Turbine Building exterior service transformer containing mineral oil (334 gallons)
I-108	#7 Warehouse service transformer containing mineral oil (334 gallons)
I-111	Security Guard transformer containing mineral oil (125 gallons)
I-112	12,150 gallon Unit 6 Turbine Lube Oil Tank
I-113	528 gallon Unit 6 Turbine Hydraulic Oil Tank
I-114	1,730 gallon Unit 6 Boiler Feed Pump Turbine A Lube Oil Tank
I-115	1,730 gallon Unit 6Boiler Feed Pump Turbine B Lube Oil Tank
I-116	250 gallon Unit 6 Boiler Feed Pump Turbine A Hydraulic Oil Tank
I-117	250 gallon Unit 6 Boiler Feed Pump Turbine B Hydraulic Oil Tank
I-118	Unit 6 Coal Mill Pulverizer Hydraulic Oil Tanks (6 tanks, 105 gallons each, 630gallons total)
I-119	400 gallon Unit 6 Generator Main Seal Oil Tank
I-120	Unit 6A and 6B Air Heater Bottom Bearing Oil Reservoirs (2 reservoirs, 75 gallons each, 150 gallons total)
I-121	Unit 6 FD and PA Fan Bearing Oil Reservoirs (4 reservoirs, 100 gallons each, 400 gallons total)
I-122	100 gallon Unit 6 Bottom Ash Hydraulic Power Unit Reservoir
I-123	Unit 6 ID Fan A Hydraulic Oil reservoir (200 gallons) and Lube Oil reservoir (120 gallons) for 320 gallons total
I-124	Unit 6 ID Fan B Hydraulic Oil reservoir (200 gallons) and Lube Oil reservoir (120 gallons) for 320 gallons total
I-125	136,000 gallon Unit 6 Fuel Oil Storage Tank
I-126	183 gallon Emergency Quench Pump diesel tank
I-127	Landfill Diesel Storage Tank (1000 gallon) and Gas Storage Tank (500 gallon).
I-128	900 gallon Unit 6 Emergency Diesel Generator fuel tank
I-129	500 gallon Common Emergency Fire Pump containing diesel fuel
I-130	26,600 gallon Unit 6 Turbine Lube Oil Maintenance Tank (normally empty)
I-131	Misc. petroleum drums in Drum Storage Shed (approx. 125 drums, approx. 6,875 gallons total)
I-132	Misc. petroleum storage bins (approx 24 bins, 1,512 gallons total)
I-133	Emergency gypsum stack out bypass
I-134	Circuit regulators near Intake containing transformer oil - 300 gallons
I-135	Transformers at 1-4 Basement Basin - 780 gallons
I-136	Unit 5 Yard transformer - 270 gallons
I-137	500 gallon diesel fuel tank for the Unit 5 Emergency Fire Pump
I-138	2,750 gallon diesel fuel tank for the Unit 5 Black Start Generator
I-139	Administration building transformer - 233 gallons
I-140	Coal Handling Service Transformer - 481 gallons
I-141	810 Service Transformer - 481 gallons

Emission Source I.D.	Emission Source Description
I-142	10,000 gallon MerControl Storage Tank
I-143	Construction Transformer Containing Mineral Oil (400 gallons)
I-144	Unit 6 Admin Office Transformer Containing Mineral Oil (233 gallons)
I-145	Coal Handling Service Transformer Containing Mineral Oil (481 gallons)
I-146	810 Service Transformer containing Mineral Oil (481 gallons)
I-147	Unit 6 Main Turbine ECH Hydraulic Oil Reservoir (264 gallons)
I-148	55 kW Propane-fired Emergency Generator
I-149 through I-152	Four Portable Emergency Generators for Landfill Pumps (each 111 kW electric power output capacity, each 128 kW (172 HP) engine power output capacity)

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.

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

3. For additional information regarding the applicability of GACT see the DAQ page titled “The Regulatory Guide for Insignificant Activities/Permits Exempt Activities”. The link to this site is as follows: http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide.

Summary of Changes to Air Quality Permit No. 04044T43

The following changes were made to the Duke Energy Carolinas, LLC, Air Quality Permit No. 04044T43:

Old Page Air Quality Permit No. 04044T43	**Old Section** Air Quality Permit No. 04044T43	**New Page** Air Quality Permit No. 04044T44	**New Section** Air Quality Permit No. 04044T44	**Description of Change(s)**
Cover letter & first page of permit				Amended permit numbers and dates.
-	-	-	-	Remove the insignificant activity I-18 as per the applicant request. Revise the descriptor for I-21 to describe that the gasoline tank is an above ground tank and not an underground tank. Revise the insignificant activity list to add four emergency generators (each 172 HP engine) with ID numbers I-149 through I-152.
3	Section 1 Table	3	Section 1 Table	Remove applicability of 112j in the descriptor for ES-AuxBU5. Move up the emission source ES-A8 with ES-A5 and ES-A9, discharging to CD-31 (instead of CD-30). Include a footnote providing an ability to the Permittee to not operate the fabric filters on Unit 6 when burning natural gas only and only if the associated spray dry absorber is non-operational.
10	Section 2.1.A. Table	9	Section 2.1.A. Table	Remove the non-applicable requirement of 02Q .0504.
17	Section 2.1.A.8.a.	17	Section 2.1.A.8.a.	Insert natural gas firing capability for Unit 5 boiler.
17	Section 2.1.A.8.c.	17	Section 2.1.A.8.c.	Clarify that the monitoring approach included in the table below applies for coal/fuel oil/natural gas or any combination of fuel firing scenarios.
19	Section 2.1.B. Table	19	Section 2.1.B. Table	Remove the non-applicable requirement of 112j from the listing of applicable regulations.
20	Section 2.1.B.4.	-	-	Remove this non-applicable requirement of 112j.
34	Section 2.1.J. Table	32	Section 2.1.J. Table	Remove non-applicable requirement of 02Q .0504.
41	Section 2.1.J.4.b.	40	Section 2.1.J.4.b.	Remove the redundant wordings “emission limits” as “BACT” is an emission limit (in most cases) and the established BACT for both sulfuric acid mist and PM10 are emission limits.
41	Section 2.1.J.4.c.	41	Section 2.1.J.4.c.	Modify coal scenario to include coal and natural gas firing combination as well.

Old Page Air Quality Permit No. 04044T43	**Old Section** Air Quality Permit No. 04044T43	**New Page** Air Quality Permit No. 04044T44	**New Section** Air Quality Permit No. 04044T44	**Description of Change(s)**
				For indicator ranges for fuel oil/natural gas scenario, replace "emissions limit" with "BACT". Modify the QA/QC Practices and Criteria to allow inspection and maintenance approach for the Rosemount flow monitoring device instead of the current mandatory replacement approach for the monitoring device every five years.
55	Section 2.1.O.	54	Section 2.1.O.	Modify the descriptor for ES-A8 to state that its emissions are controlled by CD-31.
56	Section 2.1.O.1.c.	55	Section 2.1.O.1.c.	Modify this condition to state that PM emissions from ES-A8 are to be controlled by CD-31.
56	Section 2.1.O.1.d.	55	Section 2.1.O.1.d.	Modify this condition to include ES-A8.
72 through 74	Section 2.2.C.3.	72 through 74	Section 2.2.C.3.	Replace the basis of 02Q .0308(a)(1) with 02Q .0508(f).
74	Section 2.2.C.3.c. and d.	73, 74	Section 2.2.C.3.c. and d.	Include non-compliance statements for both testing and monitoring/record keeping requirement. Include a statement on sufficiency of reporting for tune-ups as per MATS for ensuring compliance with PSD.
74	Section 2.2.C.4	-	-	Remove this non-applicable requirement with the processing of this 2nd step application for the previously approved natural gas co-firing project.
87 through 95	Section 3	86 through 94	Section 3	Replace the current General Conditions (version 5.3, 08/21/2018) with General Conditions (version 5.5, 08/25/2020).

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

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
04044T44	04044T43	xx	December 31, 2023

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

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

Permittee:	**Duke Energy Carolinas, LLC - Cliffside Steam Station**
Facility ID:	**8100028**
Facility Site Location: **City, County, State, Zip:**	**573 Duke Power Road** **Mooresboro, Rutherford, NC, 28114**
Mailing Address: **City, State, Zip:**	**573 Duke Power Road** **Mooresboro, NC, 28114**
Application Number: **Complete Application Date:**	**8100028.18B, 8100028.19A** **October 16, 2018, September 30, 2019**
Primary SIC Code: **Division of Air Quality,** **Regional Office Address:**	**4911** **Asheville Regional Office** **2090 U. S. Highway 70** **Swannanoa, NC 28778**

Permit issued this the xx.

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

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(Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)
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SECTION 3: GENERAL PERMIT CONDITIONS

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List of Acronyms

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Acid Rain Permit Application dated August 11, 2014
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Acid Rain NOx Compliance Plan dated June 23, 2015
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ATTACHMENT 3
Greenhouse Gas Reduction Plan

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

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

Page No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
9, 65, 85	ES-5 (U5Boiler) **CAM** **MACT UUUUU** **PSD**	One coal+/natural gas/No. 2 fuel oil-fired electric utility boiler (6,080 million Btu per hour heat input, Unit No. 5) equipped with low-NO_X concentric firing system and separated over-fire air/lowered firing low-NOx control equipment (SOFA/LOFIR)*	CD-11b (U5SCR)*	A selective catalytic reduction (SCR) system installed in series with:
				Flue gas ash conditioning systems consisting of:
			CD-12 (U5FG)*	An anhydrous ammonia injection system and
			CD-13 (U5FG)*	A sulfur trioxide injection system
			CD-U5(DSI)†	Portable hydrated lime dry sorbent injection system
			CD-5/CD-6 (U5ESP)/ (U5ESP)	Two cold-side electrostatic precipitators (ESP) (190,080 square feet of plate area, each) in parallel
			CD-33*	Wet flue gas desulfurization system (FGD) consisting of: Spray tower absorber (nominal 211 gal/min limestone slurry injection rate)
				None of the mercury control devices or techniques shall use halogen containing compounds (e.g., bromide).
19, 76	ES-AuxBU5 **MACT DDDDD**	One No. 2 fuel oil/propane**-fired auxiliary boiler (71.5 million Btu per hour heat input)	N/A	N/A
21, 76	ES-8A ES-8B	One flyash transfer and storage system consisting of: One flyash vacuum handling system, and; One flyash storage silo, truck load out and blow off system	CD-15 (Fltr) CD-14 (Fltr)	One fabric-type in-line vacuum filter One bagfilter (1,200 square feet of filter area)
21, 76	ES-9A ES-9B	One flyash transfer and storage system consisting of: One flyash vacuum handling system, and; One flyash storage silo	CD-17 (Fltr) CD-16 (Fltr)	One bagfilter (678 square feet of filter area) One bagfilter (392 square feet of filter area)

Page No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
21	ES-11 (LSS)	One limestone storage silo	CD-18 (Fltr)	One bagfilter (200 square feet of filter area)
23	ES-12 (EmGen) **MACT ZZZZ**	One No. 2 fuel oil/diesel[++]-fired emergency/blackout protection diesel generator (1000 kW)	None	N/A
21, 76	ES-13A and ES-13B	A and B flyash vaccum systems	CD-13A and CD-13B, and CD-5 (U5ESP)	Two filter/separators (2,940 square feet of filter area each) in series with a cold-side electrostatic precipitator (190,080 square feet of plate area)
21, 76	ES-SiloU5	Unit 5 remote ash storage silo	CD-SiloU5	One bin vent filter (2,138 square feet of filter area)
24, 60, 76	C-1 **NSPS Y** **PSD**	One railcar coal unloading station and two unloading hoppers (2,400 tons/hr maximum throughput)	None	N/A
24, 60, 76	BF-1 and BF-2 **NSPS Y** **PSD**	Two belt feeders (each 1,200 tons/hr maximum throughput)	None	N/A
24, 60, 76	C-2 **NSPS Y** **PSD**	One coal stock-out conveyor (60 inches wide x 410 feet long, 2,400 tons/hr maximum total throughput)	None	N/A
24, 60, 76	C-3 **NSPS Y** **PSD**	One coal stock-out conveyor (60 inches wide x 434 feet long, 2,400 tons/hr maximum total throughput)	None	N/A
24, 60, 76	C-4 **NSPS Y** **PSD**	One coal stock-out conveyor (60 inches wide x 197 feet long, 2,400 tons/hr maximum total throughput)	None	N/A
24, 60, 76	C-7 **NSPS Y** **PSD**	One circular stacker and boom conveyor (70 inches wide x 220 feet long, 2,400 tons/hr maximum throughput)	None	N/A
24, 60, 76	C-9 and C-10 **NSPS Y** **PSD**	Coal storage pile fugitive emissions (maximum 18 acres)	None	N/A
24, 60, 76	C-11 **NSPS Y** **PSD**	Coal bulldozing	None	N/A
24, 60, 76	C-15 **NSPS Y** **PSD**	One coal crusher house (2,400 tons/hr maximum crushing capacity) controlled by water sprayers and enclosure	CD-34	Wet dust extraction system
24, 60, 76	C-21 **NSPS Y**	Unit 5 coal blend reclaim hopper (750 tons per hour maximum capacity) underground	None	N/A
Limestone Unloading, Conveying, Storage, and Crushing				

Page No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
27, 60, 64	LS-1 **PSD** and; LS-1A and LS-1B **NSPS OOO** **PSD**	One railcar limestone unloading station (2,500 tons/hr maximum throughput) and; Two unloading hoppers (each 1,250 tons/hr maximum throughput)	None	N/A
27, 60, 64	BF-3 and BF-4 **NSPS OOO** **PSD**	Two belt feeders (each 1,250 tons/hr maximum throughput)	None	N/A
27, 60, 64	LS-6 **NSPS OOO** **PSD**	One limestone stockout conveyor (48 inches wide x 977 feet long, 2,500 tons/hr maximum throughput)	None	N/A
27, 60, 64	LS-8 **PSD**	Limestone storage pile (maximum 1.3 acres)	None	N/A
27, 60, 64	LS-9 **PSD** and; LS-10A and LS-10B **NSPS OOO** **PSD**	Limestone bulldozing and two reclaim hoppers (each 300 tons/hr maximum throughput)	None	N/A
27, 60, 64	VF-40 and VF-41 **NSPS OOO** **PSD**	Two reclaim feeders (each 300 tons/hr maximum throughput)	None	N/A
27, 60, 64 27, 60, 64 27, 60, 64	LS-11 **NSPS OOO** **PSD** LS-12 **NSPS OOO** **PSD** LS13-1 and LS13-2 **NSPS OOO** **PSD**	One limestone reclaim conveyor (30 inches wide x 620 feet long, 300 tons/hr maximum throughput); One limestone silo fill conveyor (30 inches wide x 40 feet long, 300 tons/hr maximum throughput) and; Two limestone silos (each 1,100 tons capacity)	CD32-1 and CD32-2	Two air pulse or reverse flow bagfilters (each no greater than 5:2 to 1 air-to-cloth ratio)
27, 60, 64	LSBM-1 and; LSBM-2 **NSPS OOO** **PSD**	Two limestone ball mills (each 60 tons/hr maximum throughput)	None	N/A
31, 60	GS-3 and GS-4 **PSD**	Two gypsum stock-out conveyors (30 inches wide x 400 feet long and 30 inches wide x 80 feet long, 300 tons/hr maximum throughput each)	None	N/A
31, 60	GS-9 **PSD**	Gypsum truck loading (300 tons/hr maximum throughput)	None	N/A
31, 60	GS-5 **PSD**	One gypsum storage pile (maximum 0.9 acres)	None	N/A

Page No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
31, 60	Landfill **PSD**	Landfill for ash and gypsum (4 acres)	None	N/A
32, 60, 79	QP5 **NSPS IIII** **PSD** **MACT ZZZZ**	One 460 HP diesel[++]-fired emergency quench water pump	None	N/A
32, 79	FWP5 **NSPS IIII**	One 420 HP diesel[++]-fired emergency fire water pump	None	N/A
58	ES-U5Sorb1†	Portable hydrated lime sorbent receiving trailer	CD-U5SorbBf	pulse jet bagfilter (3:5 to 4:16 gas-to-cloth ratio)
58	ES-U5Sorb2†	Portable hydrated lime sorbent metering trailer		
UNIT 6 EQUIPMENT				
33, 65, 85	ES-6 **NSPS Da** **PSD** **CAM** **MACT UUUUU**	One coal[+]/natural gas/No. 2 fuel oil-fired*** supercritical electric utility boiler (7850 million Btu per hour heat input, Unit No. 6) equipped with low-NOx burners and over-fire air low-NOx control ****	CD-19**** CD-20 CD-21[+++] CD-22	Selective catalytic reduction (SCR) NOx reduction system Two spray dry absorbers operating in parallel to condition gas stream using water/lime slurry (2,824,500 ACFM total inlet gas flow rate) Two fabric filters operating in parallel and downstream of each spray dry absorber (726,800 square feet of filter area) Wet flue gas desulfurization system (FGD) consisting of spray tower absorber (approximately 313 gal/min limestone slurry injection rate) None of the mercury control devices or techniques shall use halogen containing compounds (e.g., bromide).
45, 76	ES-AuxBU6 **NSPS Db** **PSD** **MACT DDDDD**	One No. 2 fuel oil/propane**-fired auxiliary boiler (190 million Btu per hour heat input)	N/A	Low NOx Burners
49, 60	ES-CT1 **PSD**	One multi-cell cooling tower with drift eliminators (nominally 406,000 gallons per minute re-circulating water flow rate)	N/A	N/A
50, 76	ES-EG6 **PSD** **NSPS IIII** **MACT ZZZZ**	One No. 2 fuel oil/diesel[++]-fired emergency generator (2922 hp)	N/A	N/A
50, 76	ES-FWP **PSD** **NSPS IIII** **MACT ZZZZ**	One No. 2 fuel oil/diesel[++]-fired emergency firewater pump (359 hp)	N/A	N/A
Unit 6 Coal Handling				
52, 60, 76	ES-C19 **NSPS Y** **PSD**	Unit 6 Coal Reclaim Hoppers (750 tons per hour capacity)	N/A	N/A

Page No.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
52, 60, 76	ES-C20 **NSPS Y**	Unit 6 Coal Blend Reclaim Hopper (750 tons per hour maximum capacity) underground	N/A	N/A
52, 60, 76	ES-C27 **NSPS Y** **PSD**	Coal Reclaim Conveyor RC11 to U6 Boiler Building (36 inches wide x 1600 feet long, 750 tons per hour maximum capacity)	CD-28	Unit 6 Boiler House Coal Handling Bagfilter (No greater than 5:1 gas-to-cloth ratio)
52, 60, 76	ES-C28 **NSPS Y** **PSD**	Coal Reclaim Conveyor RC12 to U6 Boiler Building (36 inches wide x 1600 feet long, 750 tons per hour maximum capacity)		
52, 60, 76	ES-C29 **NSPS Y** **PSD**	Unit 6 Tripper Conveyor TR2 (42 inches wide x 200 feet long, 750 tons per hour maximum capacity)		
52, 60, 76	ES-C30 **NSPS Y** **PSD**	Unit 6 Tripper Conveyor TR3 (42 inches wide x 200 feet long, 750 tons per hour maximum capacity)		
52, 60, 76	ES-C31 **NSPS Y**	Unit 6 Coal Blend Reclaim Conveyor (36 inches wide x 333 feet long, 750 tons per hour maximum capacity)	N/A	N/A
52, 60, 76	ES-VF1 thru ES-VF4 **NSPS Y** **PSD**	Coal Reclaim Feeders for Unit 6 (750 tons per hour maximum capacity each)	N/A	N/A
Unit 6 Ash Handling				
55, 76	ES-A1	Wet Bottom Ash Transfer and Pickup (350 tons per hour maximum capacity)	N/A	N/A
55, 76	ES-A3 **PSD**	Dry Fly Ash Pickups at Boiler Economizer (Transfers to Wet Bottom Ash System)		
55, 76	ES-A9 **PSD**	Dry Fly Ash Pickup at Bagfilter	CD-31	Vacuum exhauster bagfilter (No greater than 5:1 gas-to-cloth ratio)
55, 76	ES-A8 **PSD**	Dry Fly Ash Pickup at Air Heater		
55, 76	ES-A5 **PSD**	Ash Vacuum Exhauster		
55, 76	ES-A6 **PSD**	Dry Fly Ash Silo	CD-30	Bagfilter (No greater than 5:1 gas-to-cloth ratio)
55, 76	ES-A7 **PSD**	Dry Fly Ash Truck Loading (350 tons per hour maximum capacity)		
55, 76	ES-A12 **PSD**	Dry Fly Ash Discharge to Truck (350 tons per hour maximum capacity)	N/A	N/A
57, 60, 64	ES-LSSDA **PSD**	Lime Silo for SDA	CD32-3	Bagfilter (No greater than 5:1 gas-to-cloth ratio)
60	ES-FVehicle **PSD**	Facility haul roads	N/A	N/A
-	U5RSHaulRoads	Asphalt paved road and unpaved gravel road for accessing Unit 5 remote ash storage silo	N/A	N/A

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

* The ammonia and sulfur trioxide ash conditioning, NOx control systems (low-NOx burners, SCR, and SOFA/LOFIR), and wet flue gas desulfurization system may be operated independently of each other or in combination. Each system may be operated intermittently as necessary, based on boiler system requirements, to maintain compliance with applicable particulate, visible emission, nitrogen oxides (NOx), and/or sulfur dioxide (SO_2) regulatory requirements.

** Propane is for start-up only.

*** The sulfur content of the Unit 6 (ID No. ES-6) No. 2 fuel oil for startup shall not exceed 0.05 percent by weight.

† The Unit 5 Portable hydrated lime dry sorbent injection system (ID No. CD-U5DSI) consists of the portable hydrated lime sorbent receiving trailer (ID No. ES-U5Sorb1) and the portable hydrated lime sorbent metering trailer (ID No. ES-U5Sorb2).

**** The NOx control systems (low-NOx burners, SCR, and SOFA/LOFIR) may be operated independently of each other or in combination. Each system may be operated intermittently as necessary, based on boiler system requirements, to maintain compliance with applicable nitrogen oxides (NOx) regulatory requirements.

+++ The operation of these control devices (two fabric filters) is optional when burning natural gas only and only if the associated spray dry absorbers are not in service (i.e., non-operational). The Permittee can opt to not operate the fabric filters during the above condition only.

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

A. One coal/natural gas/No. 2 fuel oil-fired electric utility boiler (ID No. ES-5 (U5Boiler)) equipped with low-NOx concentric firing and separated over-fire air/lowered firing low-NOx control equipment, and associated selective catalytic reduction system (ID No. CD-11b (U5SCR)), installed in series with flue gas conditioning systems consisting of an ammonia injection system (ID No. CD-12 (U5FG)) and sulfur trioxide injection system (ID No. CD-13 (U5FG)), portable hydrated lime dry sorbent injection system (ID Nos. CD-U5(DSI)), two electrostatic precipitators (ID Nos. CD-5 (U5ESP) and CD-6 (U5ESP)), and a wet flue gas desulfurization system consisting of a spray tower absorber (ID No. CD-33)

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	1.6 pounds per million Btu heat input	15A NCAC 02D .0501(c)
	See Section 2.2.C.1.	15A NCAC 02Q .0317(a)(1) (PSD Avoidance)
	Phase II Acid Rain Permit Requirements See Section 2.5	15A NCAC 02Q .0402 (40 CFR 72)
	Federal-only Requirement Cross-State Air Pollution Rule Requirements See Section 2.2.C.5.	40 CFR 97, Subpart CCCCC
Nitrogen Oxides	**When burning only coal** 1.8 pounds per million Btu heat input	15A NCAC 02D .0519
	When burning only oil or gas 0.8 pounds per million Btu heat input	
	When burning coal, natural gas, and/or oil E = [(Ec)(Qc) + (Eo)(Qo)]/Qt Where: E = the emission limit for combination in pounds per million BTU heat input Ec = 1.8 pounds per million BTU of heat input for coal Eo = 0.8 pounds per million BTU of heat input for oil or gas Qc = the actual coal heat input to the combination in BTU per hour Qo = the actual oil and gas heat input to the combination in BTU per hour Qt = Qc + Qo and is the actual total heat input to the combination in BTU per hour	
	See Section 2.2.C.1.	15A NCAC 02Q .0317(a)(1) (PSD Avoidance)
	Phase II Acid Rain Permit Requirements See Section 2.5	15A NCAC 02Q .0402 (40 CFR Part 72)
	Federal-only Requirement Cross-State Air Pollution Rule Requirements	40 CFR 97, Subparts AAAAA and

Regulated Pollutant	Limits/Standards	Applicable Regulation
	See Section 2.2.C.5.	BBBBB
Visible Emissions	**For periods when the compliance option under Section 2.1.A.3.a.i. [COMS] is used:** See Section 2.1.A.3.a.i. **For periods when the compliance option under Section 2.1.A.3.a.ii. [PM CEMS] is used:** See Section 2.1.A.3.a.ii.	15A NCAC 02D .0521*
	State-only Requirement 16 percent annual average opacity	15A NCAC 02D .0536*
Particulate Matter	**As determined by stack test:** 0.25 pounds per million Btu heat input **As determined by PM CEMS:** 0.030 pounds per million Btu heat input (or 0.30 pounds per MWh)	15A NCAC 02D .0536*
Malfunction Abatement Plan	As defined in specific conditions	15A NCAC 02D .0535
Good Operations and Maintenance Practices	As defined in specific conditions	15A NCAC 02D .0606*
Particulate Matter	**For periods when the compliance option under Section 2.1.A.3.a.i. [COMS] is used:** Monitoring for ESP control device -- See Section 2.1.A.8.	15A NCAC 02D .0614 (40 CFR 64)
Hazardous Air Pollutants	See Section 2.2.C.2.	15A NCAC 02D .1111 (40 CFR 63, Subpart UUUUU)
Carbon Monoxide VOCs	See Section 2.2.C.3. (natural gas only or natural gas with coal co-firing)	15A NCAC 02D .0530

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

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

a. In addition to any control or manner of operation necessary to meet emission standards in 15A NCAC 02D .0500, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards of 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in 15A NCAC 02D .0500 are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls. [15A NCAC 02D .0501(c)]

b. Emissions of sulfur dioxide shall not exceed 1.6 pounds per million Btu heat input, in accordance with the completed permit application and modeling analyses received September 14, 2006 to demonstrate compliance with the annual, 24-hour, and 3-hour sulfur dioxide ambient standards. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 02D .0501(c)]

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

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

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

d. The Permittee shall ensure compliance with 15A NCAC 02D .0501(c) by determining sulfur dioxide emissions in pounds per million Btu using a continuous emissions monitoring (CEM) system meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75 whenever the unit combusts any fuel). Compliance with sulfur dioxide emission standards shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75) shall be summed, and the sum shall be divided by 24. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75.

If any 24-hour block average exceeds 1.6 pounds per million Btu heat input or records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(c).

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

e. The Permittee shall submit the continuous emissions monitoring data showing the 24-hour daily block values in pounds per million Btu for each 24-hour daily block averaging period during the reporting period 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.

f. CEMS Availability - The Permittee shall submit sulfur dioxide CEM systems monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, 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.

State-only Requirement

g. The Permittee shall operate the FGD at any time that electricity is being produced by the unit other than during startup or when firing only natural gas.

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

a. The emission limit for nitrogen oxides for this source when burning coal, natural gas, and/or oil shall be calculated by the following equation [15A NCAC 02D .0519]:

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

Where:

E = emission limit for combined burning of coal, fuel oil, or gas, in pounds per million BTU heat input
Ec = 1.8 pounds per million BTU of heat input for coal
Eo = 0.8 pounds per million BTU of heat input for oil or gas
Qc = the actual coal heat input to the combination in BTU per hour
Qo = the actual oil and gas heat input to the combination in BTU per hour
Qt = Qc + Qo and is the actual total heat input to the combination in BTU per hour

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0519.

c. **Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]
The Permittee shall ensure compliance with 15A NCAC 02D .0519 by determining nitrogen oxide emissions in pounds per million Btu using a continuous emissions monitoring (CEM) system meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75 whenever the unit combusts any fuel). Compliance with this emission standard shall be determined by averaging hourly continuous

emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75) shall be summed, and the sum shall be divided by 24. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any 24-hour block average exceeds the emission limit, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0519.

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

e. **Reporting** [15A NCAC 02Q .0508(f)]
The Permittee shall submit the continuous emissions monitoring system data showing the 24-hour daily block values for periods of excess nitrogen oxide emissions no later than January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

f. CEMS Availability - The Permittee shall submit the nitrogen oxide CEM systems monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, 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. All instances of deviations from the requirements of this permit must be clearly identified.

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

a. The Permittee shall either:
   i. install, maintain, and operate a COMS for measuring the opacity of emissions, or
   ii. install, maintain, and operate a PM CEMS.

   The Permittee shall submit a written notification to the NCDAQ of intent to demonstrate compliance using the option under Section 2.1.A.3.a.i. [COMS] or Section 2.1.A.3.a.ii. [PM CEMS] at least 30 calendar days before changing the compliance monitoring option.

b. For periods when the compliance option under Section 2.1.A.3.a.i. [COMS] is used, compliance with the 40 percent opacity limit shall be determined as follows: [15A NCAC 02D .0521(g)]
   i. No more than four six-minute periods shall exceed the opacity standard in any one day; and
   ii. The percent of excess emissions (defined as the percentage of monitored operating time in a calendar quarter above the opacity limit) shall not exceed 0.8 percent of the total operating hours. If a source operates less than 500 hours during a calendar quarter, the percent of excess emissions shall be calculated by including hours operated immediately previous to this quarter until 500 operational hours are obtained.

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

   All periods of excess emissions shall be included in the determinations in paragraphs b.i. and b.ii. above until such time that the excess emissions are exempted according to the procedures in 02D .0535.

c. For periods when the compliance option under Section 2.1.A.3.a.ii. [PM CEMS] is used, visible emissions shall not be more than 40 percent opacity when averaged over a six-minute period except that six-minute periods averaging not more than 90 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. [15A NCAC 02D .0521(c)]

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

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

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

e. For periods when the compliance option under Section 2.1.A.3.a.i. [COMS] is used, opacity shall be measured using an opacity monitoring system that meets the performance specifications of Appendix B of 40 CFR Part 60. The opacity monitoring system shall be subjected to a quality assurance program approved by the director. The Permittee, for each unit subject to 02D .0521(g) shall have on file with the director an approved quality assurance program, and shall submit to the director within the time period of his request for his approval a revised quality assurance program, including at least procedures and frequencies for calibration, standards traceability, operational

checks, maintenance, auditing, data validation, and a schedule for implementing the quality assurance program. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if the monitoring is not performed, if the monitored values exceed the limitations given above, or if the records are not maintained.

f. For periods when the compliance option under Section 2.1.A.3.a.ii [PM CEMS] is used, no opacity monitoring is required.

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

g. For periods when the compliance option under Section 2.1.A.3.a.i [COMS] is used, the Permittee shall submit excess emissions and monitoring system performance reports for the COMS data in accordance with the reporting requirements given in Section 2.1 A.7.d no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. The report shall include, at a minimum, the information required in 40 CFR 60.7(c) and shall include all six-minute periods of excess emissions including all six-minute periods exempted during startup, shutdown and malfunction.

h. For periods when the compliance option under Section 2.1.A.3.a.ii [PM CEMS] is used, no opacity reporting is required.

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

4. 15A NCAC 02D .0535: EXCESS EMISSIONS REPORTING AND MALFUNCTIONS

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

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

b. The Permittee shall maintain logs to show that the operation and maintenance parts of the malfunction abatement plan are implemented. These logs (written or electronic form) shall be subject to inspection by DAQ personnel upon request during business hours. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0535, if the requirements of this Section 2.1 A.4.b. above are not complied with.

5. 15A NCAC 02D .0536: PARTICULATE EMISSIONS FROM ELECTRIC UTILITY BOILERS

a. Emissions of particulate matter from this source shall not exceed 0.25 pounds per million Btu heat input as determined by stack test. [15A NCAC 02D .0536(b)]

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

c. The collected flyash shall not be re-injected into these boilers. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0536, if flyash is re-injected in the boiler.

d. **Testing** [15A NCAC 02Q .0508(f)]
If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.5.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0536.

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

e. A stack test shall be conducted in accordance with either Method 5 at a sample temperature of 320º ± 25º F as described in §63.10010(i)(1) or Method 5B of Appendix A of 40 CFR Part 60 once per calendar year. In the event that a unit 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 0.25 pounds per million Btu heat input, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0536.

f. For periods when the compliance option under Section 2.1.A.3.a.i. [COMS] is used, compliance with the particulate limit in Section 2.1.A.5.a. shall be demonstrated through the Compliance Assurance Monitoring (CAM) Plan given in Section 2.1.A.8. The Permittee shall ensure the continuous opacity monitor system (COMS) utilized in the CAM Plan meets the requirements of 15A NCAC 02D .0613. If the result of any stack test is greater than the limit given in Section 2.1.A.4.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0536.

g. For periods when the compliance option under Section 2.1.A.3.a.ii. [PM CEMS] is used, compliance with the particulate limit in Section 2.1.A.5.a. shall be demonstrated using the PM CEMS. A measured exceedance of 0.030 pounds per million Btu heat input (30-boiler operating day rolling average) or 0.30 pounds per MWh (30-boiler

operating day rolling average) shall be a violation of the corresponding emission standard in Section 2.1.A.5.a.

i. The Permittee shall install, certify, operate, and maintain a PM CEMS and record the output of the PM CEMS according to the applicable Maximum Achievable Control Technology (MACT) standards in §63.10010(i) of 40 CFR Part 63 Subpart UUUUU, as specified in Section 2.2.C.2.dd. The PM CEMS shall meet the requirements of Performance Specification PS-11 of Appendix B of 40 CFR Part 60. The Permittee shall have on file with the director an approved quality assurance program, and shall submit to the director within the time period of his request for his approval a revised quality assurance program to include the provisions of 40 CFR 60, Appendix F, Procedure 2 for the PM CEMS.

ii. The PM emission rate shall be determined based on a 30-boiler operating day rolling average of the hourly arithmetic average emissions concentrations using the CEMS outlet data for each boiler operating day (as defined below), except for data obtained during periods of startup or shutdown. Periods of malfunction shall be included in the emissions calculations.

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

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

iv. PM CEMS monitor availability shall be calculated and reported.

v. The Permittee shall record the output of the PM CEMS as specified in Section 2.2.C.2.ff.

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

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

h. For periods when the compliance option under Section 2.1.A.3.a.i. [COMS] is used, the Permittee shall submit the results of all monitoring performed in Section 2.1.A.5.f. above within 30 days of a written request by the DAQ.

i. For periods when the compliance option under Section 2.1.A.3.a.ii. [PM CEMS] is used, the Permittee shall submit excess emissions and monitoring system performance reports for PM in accordance with the reporting requirements given in Section 2.1.A.7.d. no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. The compliance report shall include, at a minimum, the information required in 40 CFR 63.10 and contain the information specified in Section 2.2.C.2.tt., along with all 30-boiler operating day rolling average excess emissions (pounds per million Btu or pounds per MWh) using the CEMS outlet data, including periods exempted during periods of startup and shutdown.

j. 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.

k. All instances of excess emissions must be clearly identified.

State-only Requirement

6. 15A NCAC 02D .0536: ANNUAL AVERAGE OPACITY FOR ELECTRIC UTILITY BOILERS

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

ID No. ES-5 (U5Boiler) - 16 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. [15A NCAC 02D .0536(b)]

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

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

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

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

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

The ratio of Z/Y has been determined from the initial CEMS certification testing to be 0.34% opacity/mg/m^3.

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

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

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

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

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

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

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

f. For periods when the compliance option under Section 2.1.A.3.a.ii. [PM CEMS] is used, the Permittee shall submit a report showing the calculated annual average opacity of each unit and the annual average opacity limit for each day during the reporting period no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June,

and October 30 of each calendar year for the preceding three-month period between July and September. All instances of deviations from the requirements of this permit must be clearly identified.

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

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

a. For periods when the compliance option under Section 2.1.A.3.a.i. [COMS] is used, the Permittee shall use a continuous opacity monitoring system (COMS) to monitor and record opacity. Continuous emissions monitoring and recordkeeping of opacity shall be performed as described in Paragraphs 2 and 3.1.1 through 3.1.5 of Appendix P of 40 CFR Part 51. The monitoring systems shall meet the minimum specifications described in Paragraphs 3.3 through 3.8 of Appendix P of 40 CFR Part 51.

The quarterly excess emissions (EE) reports required under Appendix P of 40 CFR Part 51 shall be used as an indication of good operation and maintenance of the electrostatic precipitators. These sources shall be deemed to be properly operated and maintained if the percentage of time the opacity emissions, calculated on a 6-minute average, in excess of 40 percent (including startups, shutdowns, and malfunctions) does not exceed 3.0 percent of the total operating time for any given calendar quarter, adjusted for monitor downtime (MD) as calculated below. In addition, these sources shall be deemed to be properly operated and maintained if the %MD does not exceed 2.0 percent for any given calendar quarter as calculated below.

Calculations for %EE and %MD

Percent Excess Opacity Emission (%EE) Calculation:

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

Percent Monitor Downtime (%MD) Calculation for COMS:

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

* Total Excess Emission Time contains any 6-minute period greater than 40% opacity including startup, shutdown, and malfunction.

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

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

b. For periods when the compliance option under Section 2.1.A.3.a.ii. [PM CEMS] is used, the alternative monitoring and recordkeeping procedure in this section (Section 2.1.A.7.b) applies as allowed by Paragraph 3.9 of Appendix P of 40 CFR Part 51. The Permittee shall install, certify, operate, and maintain a PM CEMS to monitor and record PM emissions according to the applicable Maximum Achievable Control Technology (MACT) standards in §63.10010(i) of 40 CFR Part 63 Subpart UUUUU, as specified in Section 2.2.C.2.dd.

The quarterly excess emissions (EE) reports shall be used as an indication of good operation and maintenance of the electrostatic precipitators. This source shall be deemed to be properly operated and maintained if the percentage of time the PM emissions, calculated on a one-hour average, greater than 0.030 pounds per million Btu heat input* does not exceed 3.0 percent of the total operating time for any given calendar quarter, adjusted for monitor downtime (MD) as calculated in Section 2.1.A.7.a. above, except that Total Excess Emission Time contains all one-hour periods greater than 0.030 pounds per million Btu heat input*. In addition, this source shall be deemed to be properly operated and maintained if the %MD does not exceed 2 percent for any given calendar quarter as calculated in Section 2.1.A.7.a. above.

* The PM monitored value subject to the 0.030 pounds per million Btu limit may have a 5% CO_2 diluent cap, or a 14% O_2 diluent cap, substituted in the emission rate calculation for a startup or shutdown hour (as defined in §63.10042) in

which the measured CO_2 concentration is below 5% or whenever the measured O_2 concentration is above 14%.

c. The Permittee shall use a continuous emissions monitoring system (CEMS) to monitor and record sulfur dioxide emissions. Continuous emissions monitoring and recordkeeping of sulfur dioxide emissions shall be performed as described in Paragraphs 2 and 3.1.1 through 3.1.5 of Appendix P of 40 CFR Part 51. The monitoring systems shall meet the minimum specifications described in Paragraphs 3.3 through 3.8 of Appendix P of 40 CFR Part 51. The quarterly excess emissions (EE) reports required under Appendix P of 40 CFR Part 51 shall be used as an indication of good operation and maintenance of the flue gas desulfurization scrubbers. This source shall be deemed to be properly operated and maintained if sulfur dioxide emissions do not exceed 1.6 pounds per million Btu calculated on a 24-hour basis. Compliance with the sulfur dioxide emission standard is determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values are summed, and the sum is divided by 24. A minimum of four data points, equally spaced, is required to determine a valid hour value unless the continuous emission monitoring system is installed to meet the provisions of 40 CFR Part 75. If a continuous emission monitoring system is installed to meet the provisions of 40 CFR Part 75, the minimum number of data points is determined by 40 CFR Part 75. In addition, the flue gas desulfurization scrubbers shall be deemed to be properly operated and maintained if the %MD does not exceed 2 percent for any given calendar quarter as calculated in Section 2.1.A.7.a. above.

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

d. The Permittee shall submit the excess emissions and monitor downtime reports as required under Appendix P of 40 CFR Part 51 no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September as shown below. Reporting shall be in accordance with Paragraphs 4 and 5.1 of Appendix P of 40 CFR Part 51.
   i. For periods when the compliance option under Section 2.1.A.3.a.i. [COMS] is used, periods of excess emissions are defined as each six-minute period average greater than 40 percent opacity, the opacity measurements recorded by the COMS shall be reported as described in Paragraphs 4 and 5.1 of Appendix P of 40 CFR Part 51 except that a six-minute time period shall be deemed as an appropriate alternative opacity averaging period as described in Paragraph 4.2 of Appendix P of 40 CFR Part 51. A minimum of 36 data points, equally spaced, is required to determine a valid six-minute value.
   ii. For periods when the compliance option under Section 2.1.A.3.a.ii. [PM CEMS] is used, excess PM emissions are defined as any one-hour average greater than 0.030 pounds per million Btu heat input. The quarterly report shall include the number of hours each day and the percent of operating hours during the quarter with average PM emissions recorded by the PM CEMS greater than 0.030 pounds per million Btu.
   iii. For sulfur dioxide, excess emissions are defined as greater than 1.6 pounds per million Btu calculated on a 24-hour block average basis.
   iv. All instances of deviations from the requirements of this permit must be clearly identified.

8. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING*

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

a. The coal/No. 2 fuel oil/natural gas-fired electric utility boiler (ID No. ES-5 (U5 Boiler)) shall comply with all applicable requirements of 15A NCAC 02D .0614 "Compliance Assurance Monitoring".
b. The Electrostatic Precipitators shall be properly operated and maintained to control PM emissions from the boiler (ID No. ES-5 (U5Boiler)).

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

c. The Permittee shall comply with the monitoring approach as included in the following table when burning coal/No. 2 fuel oil/natural gas or combination of any of these fuels:

A. Indicator Measurement Approach	Opacity Use of 40 CFR 75 certified COMS connected to a data logger
B. Indicator Range	An excursion is defined as an opacity value (based on a 3-hour block average) greater than: **25 Percent – ES-5 (U5Boiler)** Excursions trigger an inspection of the control system and corrective action. If five (5) percent or greater of COMS data (averaged over a three-hour block period and excluding data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities) recorded in a calendar quarter show opacity values higher than those listed above, a stack test shall be performed in the following calendar quarter to demonstrate compliance with the particulate standard. If the stack test exceeds 80 percent of the PM limit then retesting shall be conducted in accordance with 2.1.A.5.e. If a unit operates less than 2200 hours during any calendar quarter, the facility may evaluate three-hour opacity values using operating data from the current and preceding quarters until 2200 hours of data are obtained. If no changes are being made to the most recently approved protocol as submitted in the latest annual particulate test it is not necessary for the facility to submit testing protocol 45 days prior to the scheduled test date as specified in General Condition JJ. Instead, the facility shall notify the Asheville Regional Office by email, fax, or letter, within fifteen (15) business days of making the determination that stack testing is required. The most recently approved protocol and the anticipated date of testing shall be included with that communication. The facility shall conduct testing no less than fifteen calendar (15) days from the date of this notification.
C. Performance Criteria **1. Data Representativeness** **2. Verification of Operational Status** **3. QA/QC Practices and Criteria** **4. Monitoring Frequency** **5. Data Averaging Period** **6. Data Collection**	 The COMS location meets the specifications of 40 CFR Part 75 and 40 CFR 60, Appendix B. Not applicable, use of monitoring equipment is proposed. 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. Continuous 3-hour block average of 6-minute averages starting at midnight each day. (Total of eight 3-hour block periods) Automated data acquisition system (DAHS). Real-time opacity values will be displayed to control room operators and alarms will be given to the operators when limits are exceeded.

d. For any excursion, the Permittee shall initiate an inspection of the control equipment and/or the COMS and initiate the necessary repairs as identified by the Malfunction Abatement Plan (MAP). In addition to implementing procedures outlined in the MAP, as required in Section 2.1 A.4.a., the following corrective actions shall be taken as soon as practical:
   i. Identify cause of excursion.
   ii. Initiate actions to correct the cause of any excursions identified in step i. above. Repair equipment that is not operating properly. Isolate ESP fields if necessary in accordance with MAP.
   iii. Initiate work order for ESP inspection and repair as needed for any equipment that cannot be repaired during operation.
   iv. Document nature and cause of excursions in operations log.
   v. Improve preventative maintenance procedures as necessary in accordance with CAM QIP (if one exists) and MAP procedures.
   vi. Provide notification to DAQ in accordance with reporting requirements in Section 2.1 A.8.f. below.

   If the above monitoring and recordkeeping is not performed, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0614.

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

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

f. The Permittee shall submit the quarterly reports as required under 15A NCAC 02D .0614 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).

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

B. One No. 2 fuel oil/propane-fired auxiliary boiler (ID No. ES-AuxBU5)

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	0.10 pounds per million Btu heat input	15A NCAC 02D .0503
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	See Section 2.1.B.3.a.	15A NCAC 02D .0521
Hazardous Air Pollutants	See Section 2.2.E.1.	15A NCAC 02D .1111 (40 CFR 63, Subpart DDDDD)

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

a. Emissions of particulate matter from the combustion of No. 2 fuel oil or propane, that are discharged from the boiler (ID No. ES-AuxBU5) into the atmosphere shall not exceed 0.10 pound per million Btu heat input each. [15A NCAC 02D .0503 (a)]

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

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

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

c. No monitoring/recordkeeping/reporting is required for emissions of particulate matter from this source to ensure compliance with this regulation.

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

a. Emissions of sulfur dioxide from the boiler (ID No. ES-AuxBU5) shall not exceed 2.3 pounds per million Btu heat input each. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 02D .0516]
b. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of No. 2 fuel oil or propane in this source.

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

a. Visible emissions from the boiler (ID No. ES-AuxBU5) shall not be more than 40 percent opacity (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 90 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. [15A NCAC 02D .0521(c)]

Testing [15A NCAC 02Q .0508(f)]
b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]
c. To ensure compliance, the Permittee shall perform a Method 9 test for 1 hour using a pre-approved protocol to be submitted in accordance with General Condition JJ before the sources operate more than 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. If the results of any Method 9 test is above the limit in Section 2.1 B.3.a. above, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521. No opacity monitoring is required while the source is burning propane.

Recordkeeping [15A NCAC 02Q .0508(f)]
d. The Permittee shall keep records of the hours and associated dates, when these sources are in operation using No. 2 fuel oil and the dates of performance of Method 9 tests. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]
e. The Permittee shall submit the results of the Method 9 test as a part of the quarterly report described in Section 2.1 A.7.d. above. All instances of deviations from the requirements of this permit must be clearly identified.

C. One flyash transfer and storage system (ID No. ES-8(FTS)) consisting of:

One flyash vacuum handling system (ID No. ES-8A) and associated vacuum filter (ID No. CD-15 (Fltr)),
and;
One flyash storage silo, truck load out and blow off system (ID No. ES-8B) and associated bagfilter (ID No. CD-14 (Fltr));

One flyash transfer and storage system (ID No. ES-9(FTS)) consisting of:

One flyash vacuum handling system (ID No. ES-9A) and associated bagfilter (ID No. CD-17(Fltr)), and;
One flyash storage silo (ID No. ES-9B) and associated bagfilter (ID No. CD-16(Fltr)); and;

One limestone storage silo (ID No. ES-11(LSS)) and associated bagfilter (ID No. CD-18(Fltr))
Two flyash vaccum systems (ID Nos. ES-13A and ES-13B) and associated filter/separators (ID Nos. CD-13A and CD-13B)
One Unit 5 remote ash storage silo (ID No. ES-SiloU5) and associated bin vent filter (ID No. CD-SiloU5)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons/hr Where: E = allowable emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 02D .0515
Visible Emissions	See Section 2.1.C.2.a.	15A NCAC 02D .0521
Toxic Air Pollutants	See Section 2.2.D.1. (all sources listed in Section 2.1 C. above except ID No. ES-11(LSS))	15A NCAC 02D .1100

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

a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation(s): [15A NCAC 02D .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 02Q .0508(f)]

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

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

c. Particulate matter emissions from these sources shall be controlled by the bagfilters, vacuum filter, filter/separators, and bin vent filter. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement must include the following:
   i. A monthly visual inspection of the system ductwork, and material collection unit for leaks; and
   ii. An annual internal inspection of the bagfilters', vacuum filter's, filter/separators', and bin vent filter's structural integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork, bagfilters, vacuum filter, filter/separators, and bin vent filter are not inspected and maintained according to the schedule above.

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

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

e. The Permittee shall submit the results of any maintenance performed on the bagfilters, vacuum filter, filter/separators, and bin vent filter, within 30 days of a written request by the DAQ.

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

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

a. Visible emissions from these sources shall not be more than 20 percent opacity (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. [15A NCAC 02D .0521(d)]

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

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

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

c. To ensure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
   i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 C.2.a. above.

   If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

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

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

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 A.3.c. and d. above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

D. One No. 2 fuel oil/diesel-fired emergency/blackout protection diesel generator (ID No. ES-12 (EmGen))

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	See Section 2.1.D.2.a.	15A NCAC 02D .0521
HAPS	-	15A NCAC 02D .1111 (40 CFR 63, Subpart ZZZZ)[1]

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

a. Emissions of sulfur dioxide from this source shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide

[1] No requirements remained to comply under this applicable requirement.

formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 02D .0516]

b. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of No. 2 fuel oil or diesel in this source.

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

a. Visible emissions from this source shall not be more than 20 percent opacity (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. [15A NCAC 02D .0521(d)]

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

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

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

c. To ensure compliance, the Permittee shall perform a Method 9 test for 1 hour using a pre-approved protocol to be submitted in accordance with General Condition JJ before the sources operate more than 1100 hours using No. 2 fuel oil and diesel. This monitoring protocol shall be repeated before each subsequent 1100 hours of operation using No. 2 fuel oil and diesel from the last test for each source. If the results of any Method 9 test are above the limit in Section 2.1 D.2.a above, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

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

e. The Permittee shall submit the results of the Method 9 test as a part of the quarterly report described in Section 2.1 A.7.d. above. All instances of deviations from the requirements of this permit must be clearly identified.

E. Coal Unloading, Conveying, Storage, and Crushing

One railcar coal unloading station and two unloading hoppers (ID No. C-1)
Two belt feeders (ID Nos. BF-1 and BF-2)
Three coal stockout conveyors (ID Nos. C-2, C-3, and C-4)
One circular stacker and boom conveyor (ID No. C-7)
Coal storage pile fugitives (ID Nos. C-9 and C-10)
Coal bulldozing and reclaim hoppers (ID No. C-11)
One coal crusher house (ID No. C-15) and associated dust extraction system (ID No. CD-34)
Unit 5 coal blend reclaim hopper (ID No. C-21) (capped for future use, inoperable)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons/hr Where: E = allowable emission rate in pounds per hour P = process weight rate in tons per hour (ID No. C-15)	15A NCAC 02D .0515

Visible Emissions	See Section 2.1.E.2.a. (ID No. C-7)	15A NCAC 02D .0521
Particulate Matter	0.010 gr/dscf (ID Nos. C-1, C-3, C-4, C-15 and CD-34)	15A NCAC 02D .0524 (40 CFR 60, Subpart Y)
	minimize fugitive coal dust emissions (ID Nos. C-7, C-9, C-10 and C-11)	
Visible Emissions	10 percent opacity except during start-up, shutdown and malfunction (ID Nos. C-1, BF-1, BF-2, C-2, C-3, C-4, C-15, C-21 and CD-34)	
PM and PM_{10}	See Section 2.2.A.1. (ID Nos. C-1, BF-1, BF-2, C-2, C-3, C-4, C-7, C-9, C-10, C-11, C-15, and CD-34)	15A NCAC 02D .0530
Toxic Air Pollutants	See Section 2.2.D.1.	15A NCAC 02D .1100

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

a. Emissions of particulate matter from this source (ID No. C-15) shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 02D .0515(a)]

$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour
or
$E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons per hour

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

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

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

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

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

c. Particulate matter emissions from the emission source (ID No. C-15) shall be controlled by the dust extraction system (ID No. CD-34). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. After initial startup, inspect the filters every two weeks for the first three months of operation to check for proper dust collection and disposal and to check for fan blade wear; and
   ii. A semi-annual (for each 6 month period following the initial startup) inspection of the dust extraction system, including inspection of the filters for proper dust collection and disposal, and inspection the fan blade for excessive wear.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and dust extraction system 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 dust extraction system; and
   iv. Any variance from manufacturer’s recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

e. The Permittee shall submit the results of any maintenance performed on the dust extraction system within 30 days of a

written request by the DAQ.

f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1.E.1.c. and d. above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

a. Visible emissions from these sources (ID No. C-7) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521 (d)]

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

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

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

c. To ensure compliance, once a month the Permittee shall observe the emission points of these sources (ID No. C-7) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
   i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1.E.2.a above.

   If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

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

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

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1.E.2.c. and d. above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS [40 CFR 60, Subpart Y]

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

Emission Standards [40 CFR 60.254]

b. Particulate matter emissions from the mechanical vents (ID Nos. C-1, C-3, C-4, C-15 and CD-34) shall not exceed 0.010 gr/dscf.

c. Visible emissions (except during startup, shutdowns, and malfunction) from sources (ID Nos. C-1, BF-1, BF-2, C-2, C-3, C-4, C-15, C-21 and CD-34) shall be less than 10 percent opacity.

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

d. The Permittee shall conduct performance tests for the mechanical vents subject to a PM emissions standard (ID Nos. C-1, C-3, C-4, C-15 and CD-34) according to the requirements of §60.8 and the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards. An initial performance test must be performed and thereafter, a new performance test must be conducted as follows:
   i. If the results of the most recent performance test demonstrate that emissions are greater than 50 percent of the applicable emissions standard, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.
   ii. If the results of the most recent performance test demonstrate that emissions are 50 percent or less of the applicable emissions standard, a new performance test must be conducted within 24 calendar months of the date that the previous performance test was required to be completed.
   iii. An owner or operator of an affected facility that has not operated for the 60 calendar days prior to the due date of a performance test is not required to perform the subsequent performance test until 30 calendar days after the next operating day.

   If the results of any tests are above the limits given in Section 2.1.E.3. b. or c. above, or the requirements of this Section 2.1.E.3.d. are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

e. The Permittee shall conduct performance tests for the sources subject to an opacity standard (ID Nos. C-1, BF-1, BF-2, C-2, C-3, C-4, C-15, C-21[2] and CD-34) according to the requirements of §60.8 and the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards. An initial performance test must be performed and thereafter, a new performance test must be conducted as follows:
   i. If any 6-minute average opacity reading in the most recent performance test exceeds half the applicable opacity limit, a new performance test must be conducted within 90 operating days of the date that the previous performance test was required to be completed.
   ii. If all 6-minute average opacity readings in the most recent performance test are equal to or less than half the applicable opacity limit, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.

   If the results of any tests are above the limits given in Section 2.1.E.3. b. or c. above, or the requirements of this Section 2.1.E.3.e. are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

f. For the sources enclosed in a building (ID Nos. C-1, BF-1, BF-2, C-2, C-3, C-4, C-15 and CD-34) for which emissions from the building do not exceed any of the applicable standards in Sections 2.1.E.3.b. and c. above, then the source shall be deemed to be in compliance with such standards.

g. The Permittee shall operate the open storage pile, including equipment used in the loading, unloading and conveying operations (ID Nos. C-7, C-9, C-10 and C-11), in accordance with the most recent revision of the Open Coal Storage Facility Fugitive Dust Control Plan for the Cliffside Steam Station as required by §60.254(c). The control measures in Section 2.2.A.1 for these sources shall be used to minimize to the greatest extent practicable fugitive coal dust emissions. The plan must be revised as needed to reflect any changing conditions that may affect fugitive coal dust emissions at the source. Such revisions must be dated and submitted to the DAQ before a source can operate pursuant to these revisions. Any chemical dust suppression agent as a control measure to minimize fugitive coal dust emissions must be implemented in accordance with §60.254(c)(6) and included in the plan. If the Open Coal Storage Facility Fugitive Dust Control Plan is not revised as needed to reflect any changing conditions that may affect fugitive coal dust emissions at the source or the plan is not submitted prior to operation pursuant to the revisions, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0524.

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

h. The Permittee shall maintain a logbook (written or electronic) on-site and make it available upon request. The logbook shall record the following as applicable:
   i. The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer's recommendations shall be noted.
   ii. The date and time of periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from the actions

[2] The Unit 5 coal blend reclaim hopper (ID No. C-21) is capped for a potential future Unit 5 blending project and is inoperable. The Permittee must submit an application to modify the permit if and when the hopper is to become operable in order to establish the testing/monitoring requirements.

shall be noted.

iii. The amount and type of coal processed each calendar month.

iv. The amount of chemical stabilizer or water purchased for use in the coal preparation and processing plant.

v. Monthly certification that the dust suppressant systems were available for operation as needed to control fugitive emissions when any coal was processed and that manufacturer's recommendations were followed for all control systems. Any variance from the manufacturer's recommendations shall be noted.

vi. Monthly certification that the Open Coal Storage Facility Fugitive Dust Control Plan was implemented as described. Any variance from the plan shall be noted. A copy of the Open Coal Storage Facility Fugitive Dust Control Plan and any letters from the DAQ providing approval of any alternative control measures shall be maintained with the logbook. Any actions, *e.g.* objections, to the plan and any actions relative to the alternative control measures, *e.g.* approvals, shall be noted in the logbook as well.

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

i. For the purpose of reports required under §60.7(c), the Permittee shall report semiannually periods of excess emissions of all 6-minute average opacities that exceed the applicable standard.

j. The Permittee shall submit the results of all performance tests consistent with the provisions of section §60.8.

k. Within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance, the Permittee shall submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at *http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main.* For performance tests that cannot be entered into WebFIRE (*i.e.,* Method 9 of appendix A-4 of Part 60 opacity performance tests) the Permittee shall mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code: D243-01; RTP, NC 27711.

l. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1.E.3.g. and h. above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. All instances of deviations from the requirements of this permit must be clearly identified.

F. Limestone Unloading, Conveying, Storage, and Crushing

One railcar limestone unloading station (ID No. LS-1) and two unloading hoppers (ID Nos. LS-1A and LS-1B)
Two belt feeders (ID Nos. BF-3 and BF-4)
One limestone stock-out conveyor (ID No. LS-6)
Limestone storage pile (ID No. LS-8)
Limestone bulldozing and reclaim hoppers (ID Nos. LS-9, LS-10A, and LS-10B)
Two reclaim feeders (ID Nos. VF-40 and VF-41)
One limestone reclaim conveyor (ID No. LS-11), one limestone silo fill conveyor (ID No. LS-12), two limestone silos (ID Nos. LS13-1 and LS13-2), and associated baghouses (ID Nos. CD32-1 and CD32-2)
Two limestone ball mills (ID Nos. LSBM-1 and LSBM-2)

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	As defined in specific conditions (ID Nos. LS-1, LS-1A, LS-1B, BF-3, BF-4, LS-6, LS-8, LS-9, LS-10A, LS-10B, VF-40, VF-41, LS-11, LS-12, LS13-1, LS13-2, LSBM-1 and LSBM-2)	15A NCAC 02D .0510
Visible Emissions	20 percent opacity except during start-up, shutdown and malfunction (ID No. LS-1)	15A NCAC 02D .0521
Particulate Matter	As defined in specific conditions (ID Nos. LS-1A, LS-1B, BF-3, BF-4, LS-6, LS-10A, LS-10B, VF-40, VF-41, LS-11, LS-12, LS13-1, LS13-2, LSBM-1 and LSBM-2)	15A NCAC 02D .0524 (40 CFR 60, Subpart OOO)

PM And PM_{10}	See Section 2.2 A. 1. (ID Nos. LS-1, LS-1A, LS-1B, BF-3, BF-4, LS-6, LS-8, LS-9, LS-10A, LS-10B, VF-40, VF-41, LS-11, LS-12, LS13-1, LS13-2, LSBM-1 and LSBM-2)	15A NCAC 02D .0530
Particulate Matter	See Section 2.2 B. 1. (ID Nos. LS-1, LS-1A, LS-1B, BF-3, BF-4, LS-6, LS-8, LS-9, LS-10A, LS-10B, VF-40, VF-41, LS-11, LS-12, LS13-1, LS13-2, LSBM-1 and LSBM-2)	15A NCAC 02D .0540

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

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

Testing [15A NCAC 02Q .0508(f)]
d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1.F.2. a. or Section 2.1.F.3. b., c., and d. below, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0510.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]
e. The Permittee shall comply with the monitoring/recordkeeping/reporting required in Section 2.1.F.2.c. through e. and Section 2.1.F.3. f. through k. below. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0510 if monitoring/recordkeeping requirements in Section 2.1.F.2. c. and d. and Section 2.1.F.3. f. through i. are not complied with.

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

a. Visible emissions from this source (ID No. LS-1) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521 (d)]

Testing [15A NCAC 02Q .0508(f)]
b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]
c. To ensure compliance, once a month the Permittee shall observe the emission points of this source (ID No. LS-1) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
   i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1.F.2.a. above.

   If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

Recordkeeping [15A NCAC 02Q .0508(f)]
d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:

i. The date and time of each recorded action;
ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
iii. The results of any corrective actions performed.

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

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

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 F.2.c. and d. above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR 60, Subpart OOO)

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

Emission Standards [§60.672]

b. Stack emissions of particulate matter from affected facilities (ID Nos. LS-11, LS-12, LS13-1, and LS13-2) shall not exceed 0.05 g/dscm (0.022 gr/dscf) and 7 percent opacity.
c. Fugitive emissions from affected facility (ID No. LS-6) shall not be more than 10 percent opacity.

d. Fugitive emissions from enclosed affected facilities (ID Nos. LS-1A, LS-1B, BF-3, BF-4, LS-10A, LS-10B, VF-40, and VF-41) shall not be more than 10 percent opacity. Fugitive emissions from enclosed affected facilities (ID Nos. LSBM-1 and LSBM-2) shall not be more than 15 percent opacity.

OR

d. The building enclosing the affected facilities shall comply with the following emission limits:
   i. Fugitive emissions from any building enclosing any transfer point on a conveyor belt or any other affected facility, except emissions from a vent as defined in §60.671, shall not exceed 7 percent opacity. Affected buildings include limestone unloading structure, reagent preparation building for two ball mills, and underground tunnel for two reclaim hoppers and two reclaim feeders.
   ii. Any vent (as defined in §60.671) of any building enclosing any transfer point on a conveyor belt or any other affected facility shall not discharge stack emissions of particulate matter greater than 0.05 g/dscm (0.022 gr/dscf) and 7 percent opacity. Affected buildings include limestone unloading structure, transfer house for conveyor LS-2, and reagent preparation building for two ball mills, and underground tunnel for two reclaim hoppers and two reclaim feeders.

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

e. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1.F.3.b. through d. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

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

f. Particulate matter emissions from the affected facilities (ID Nos. LS-11, LS-12, LS13-1, and LS13-2) shall be controlled by the bagfilters (ID Nos. CD32-1 and CD32-2). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. A monthly visual inspection of the system ductwork and material collection unit for leaks; and
   ii. An annual (for each 12 month period following the initial inspection) internal inspection of the bagfilters structural integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the ductwork and bagfilters are not inspected and maintained.
g. To ensure compliance, once a month the Permittee shall observe the emission points of the affected facilities (ID Nos.

LS-1A, LS-1B, BF-3, BF-4, LS-6, LS-10A, LS-10B, VF-40, VF-41, LS-11, LS-12, LS13-1, LS13-2, LSBM-1, and LSBM-2) including building enclosures for any visible emissions above normal. For those sources enclosed in a building (ID Nos. LS-1A, LS-1B, BF-3, BF-4, LS-10, VF-40, VF-41, LSBM-1, and LSBM-2), the observations shall be made at any opening from the building. The monthly observation must be made for each of the calendar year period to ensure compliance with this requirement. If visible emissions from the sources including building enclosures are observed to be above normal, the Permittee shall either:

i. Take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
ii. Demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1.F.3.b. through d. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

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

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

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

j. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.
k. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1.F.3.f. through i. above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

G. Gypsum Conveying, Loading and Storage
Landfill for ash and gypsum

Two gypsum stockout conveyors (ID Nos. GS-3 and GS-4)
Gypsum truck loading (ID No. GS-9)
One gypsum storage pile (ID No. GS-5)
Landfill for ash and gypsum (ID No. Landfill)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible Emissions	20 percent opacity except during start-up, shutdown and malfunction (ID Nos. GS-3, GS-4, and GS-9)	15A NCAC 02D .0521
PM And PM_{10}	See Section 2.2 A. 1. (ID Nos. GS-3, GS-4, GS-5, GS-9, and Landfill)	15A NCAC 02D .0530

1. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources (ID Nos. GS-3, GS-4, and GS-9) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521 (d)]

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

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

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

c. To ensure compliance, once a month the Permittee shall observe the emission points of these sources (ID Nos. GS-3, GS-4, and GS-9) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
   i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1.G.1.a. above.

   If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

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

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

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1.G.1.c. and d. above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

H. One diesel-fired emergency quench water pump (ID No. QP5)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible Emissions	20 percent opacity except during start-up, shutdown and malfunction	15A NCAC 02D .0521
VOC NOx CO PM Sulfur Dioxide (as fuel sulfur content)	See Section 2.2.F.1.	15A NCAC 02D .0524 (40 CFR 60, Subpart IIII)
PM And PM_{10}	See Section 2.2.A.1.	15A NCAC 02D .0530
HAPS	See Section 2.1.H.2.	15A NCAC 02D .1111

1. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from this source (ID No. QP5) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not

more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521(d)]

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

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

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

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of diesel fuel in this source.

2. **15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (40 CFR 63, SUBPART ZZZZ)**

a. For the emergency quench water pump (ID No. QP5), the Permittee shall comply with the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII as specified in Section 2.2.F.1. below. No further requirements apply under 40 CFR 63, Subpart ZZZZ. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the Permittee does comply with the requirements of 40 CFR 60, Subpart IIII, as specified in 2.2.F.1. below.

I. One diesel-fired emergency firewater pump (ID No. FWP5)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible Emissions	20 percent opacity except during start-up, shutdown and malfunction	15A NCAC 02D .0521
VOC NOx CO PM Sulfur Dioxide (as fuel sulfur content)	See Section 2.2.F.1.	15A NCAC 02D .0524 (40 CFR 60, Subpart IIII)

1. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from this source (ID No. FWP5) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521(d)]

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

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

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

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of diesel fuel in this source.

J. One coal/natural gas/No. 2 fuel oil-fired supercritical electric utility boiler (ID No. ES-6) equipped with low-NOx concentric firing and over-fire air low-NOx control, and with associated selective catalytic reduction system (ID No. CD-19), two spray dry absorbers (ID No. CD-20), two fabric filters (ID No. CD-21), and a wet flue gas desulfurization system (ID No. CD-22)

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	1.4 lb/MWh gross energy output (30-day rolling average), or 95% reduction (30-day rolling average)	15A NCAC 02D .0524 (40 CFR 60, Subpart Da)
	State-only Requirement 0.15 lb/million Btu heat input (30-day rolling average)	Senate Bill S1587 (passed in General Assembly 2005 legislative session)
	See Section 2.2.C.1.	15A NCAC 02Q.0317(a)(1) (PSD avoidance)
	State-only Requirement 0.12 lb/million Btu heat input	15A NCAC 02Q .0309
	Federal-only Requirement Cross-State Air Pollution Rule Requirements See Section 2.2.C.5.	40 CFR 97, Subpart CCCCC
	Phase II Acid Rain Permit Requirements See Section 2.5	15A NCAC 02Q .0402 (40 CFR 72)
Nitrogen Oxides (as NO_2)	1.0 lb/MWh gross energy output (30-day rolling average)	15A NCAC 02D .0524 (40 CFR 60, Subpart Da)
	Federal-only Requirement Cross-State Air Pollution Rule Requirements See Section 2.2.C.5.	40 CFR 97, Subparts AAAAA and BBBBB
	Phase II Acid Rain Permit Requirements See Section 2.5	15A NCAC 02Q .0402 (40 CFR 72)
	See Section 2.2.C.1.	15A NCAC 02Q .0317(a)(1) (PSD avoidance)
	State-only Requirement 0.07 lb/million Btu heat input	15A NCAC 02Q .0309
Particulate Matter	0.10 lb/million Btu heat input	15A NCAC 02D .0503
	0.015 lb/million Btu heat input (filterable only) (24-hour daily (block) average) 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity	15A NCAC 02D .0524 (40 CFR 60, Subpart Da)
PM_{10}	0.012 lb/million Btu heat input (filterable only) (coal burning only) 0.018 lb/million Btu heat input (filterable + condensable) (coal burning only)	15A NCAC 02D .0530
Carbon Monoxide	0.120 lb/million Btu heat input (coal burning only)	
	See Section 2.2.C.3. (natural gas only or natural gas with coal co-firing)	
VOCs	0.003 lb/million Btu heat input (coal burning only)	
	See Section 2.2.C.3. (natural gas only or natural gas with coal co-firing)	
Sulfuric Acid	0.005 lb/million Btu heat input (coal burning only)	
Lead	0.000022 lb/million Btu heat input (coal burning only)	

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfuric Acid PM_{10} (condensable)	Monitoring for spray dry absorber/fabric filter control devices	15A NCAC 02D .0614 (40 CFR 64)
Hazardous Air Pollutants	See Section 2.2.C.2.	15A NCAC 02D .1111 (40 CFR 63, Subpart UUUUU)

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

a. Emissions of particulate matter from the combustion of fuel oil, propane, or natural gas, that are discharged from this source into the atmosphere shall not exceed 0.10 pounds per million Btu heat input. [15A NCAC 02D .0503 (a)]

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

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

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

c. No monitoring/recordkeeping/reporting is required for emissions of particulate matter from this source when burning fuel oil, propane, or natural gas, to ensure compliance with this regulation.

2. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60, SUBPART Da)

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

b. The following emission limits shall not be exceeded [15A NCAC 02D .0524]:

POLLUTANT	EMISSION LIMIT
Particulate Matter	0.015 lb/million Btu heat input (filterable only) (24-hour daily (block) average) 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity
Sulfur Dioxide	1.4 lb/MWh gross energy output (30-day rolling average), or 95% reduction (30-day rolling average)
Nitrogen Oxides (as NO_2)	1.0 lb/MWh gross energy output (30-day rolling average)

Particulate matter, opacity, sulfur dioxide, and nitrogen oxides standards apply at all times except during periods of startup, shutdown, or malfunction.

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

c. If additional 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.J.2.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

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

d. The opacity and particulate matter emission standards under §60.42Da, sulfur dioxide emission standards under §60.43Da, and nitrogen oxides emission standards under §60.44Da, as included in Section 2.1.J.2.b. above, shall apply at all times, except during periods of startup, shutdown, or malfunction. [§60.48Da(a)]

e. After the initial performance test required under §60.8, compliance with the sulfur dioxide emission limitation or percentage reduction requirement under §60.43Da and the nitrogen oxides emission limitations under §60.44Da is based on the average emission rate for 30 successive boiler operating days*. A separate performance test is completed at the end of each boiler operating day after the initial performance test, and a new 30 day average emission rate for both sulfur dioxide and nitrogen oxides and, if necessary, a new percent reduction for sulfur dioxide are calculated to show compliance with the standards. As long as the Permittee meets the sulfur dioxide emission limitation of 1.4 lb/MWh

gross energy output, the percentage reduction requirement is not applicable. [§60.48Da(b)]

* For units constructed, reconstructed, or modified after February 28, 2005, boiler operating day means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the steam-generating unit. It is not necessary for fuel to be combusted the entire 24-hour period.

If the results of sulfur dioxide or nitrogen oxides in any tests exceed the limits given in Section 2.1.J.2.b. above or the requirements of this Section 2.1.J.2.e. are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

f. The Permittee shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere in accordance with 40 CFR Part 60, Appendix B "Performance Specifications" and Procedure 3 “Quality Assurance Requirements for Continuous Opacity Monitoring Systems at Stationary Sources” to Appendix F “Quality Assurance Procedures”, unless the source installs a continuous particulate monitoring system to demonstrate compliance as provided under paragraph m.ii below. If opacity interference due to water droplets exists in the stack (from the use of the FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Director). If the requirements of this Section 2.1.J.2.f. are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524. [§60.49Da(a)]

g. The Permittee shall install, calibrate, maintain, and operate a continuous monitoring system (CEMS), and record the output of the system, for measuring sulfur dioxide emissions in accordance with 40 CFR Part 60 Appendix B "Performance Specifications" and Appendix F "Quality Assurance Procedures." If necessary to demonstrate compliance based on 95% removal, sulfur dioxide emissions shall be monitored at both the inlet and outlet of the sulfur dioxide control device. An “as fired” fuel monitoring system (upstream of coal pulverizers) meeting the requirements of Method 19 may be used to determine potential sulfur dioxide emissions in place of a continuous sulfur dioxide emission monitor at the inlet to the sulfur dioxide control device. If the requirements of this Section 2.1.J.1.g. are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524. [§60.49Da(b)]

h. The owner or operator of an affected facility shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere, in accordance with 40 CFR Part 60 Appendix B "Performance Specifications" and Appendix F "Quality Assurance Procedures." If the owner or operator has installed a nitrogen oxides emission rate CEMS to meet the requirements of part 75 of this chapter and is continuing to meet the ongoing requirements of part 75 of this chapter, that CEMS may be used to meet the requirements of this section, except that the owner or operator shall also meet the requirements of §60.51Da. Data reported to meet the requirements of §60.51Da shall not include data substituted using the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter. If the requirements of this Section 2.1.J.2.h. are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524. [§60.49Da(c)]

i. The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the oxygen or carbon dioxide content of the flue gases at each location where sulfur dioxide or nitrogen oxides emissions are monitored, in accordance with 40 CFR Part 60 Appendix B "Performance Specifications" and Appendix F "Quality Assurance Procedures." If the requirements of this Section 2.1.J.2.i. are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524. [§60.49Da(d)]

j. The CEMS for sulfur dioxide, nitrogen oxides, oxygen and carbon dioxide shall be operated and data recorded during all periods of operation of the affected facility including periods of startup, shutdown, malfunction or emergency conditions, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments. If the requirements of this Section 2.1.J.2.j. are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

k. The procedures established in 40 CFR Part 60.49Da(i) shall be used to conduct monitoring system performance evaluations under §60.13(c) and calibration checks under §60.13(d). If the requirements of this Section 2.1.J.2.k. are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

l. The owner or operator of an affected facility demonstrating compliance with an output-based standard shall install, certify, operate, and maintain a continuous flow monitoring system meeting the requirements of Performance Specification 6 of appendix B and procedure 1 of appendix F of this subpart, and record the output of the system, for measuring the flow of exhaust gases discharged to the atmosphere; or alternatively, data from a continuous flow monitoring system certified according to the requirements of 40 CFR 75.20, meeting the applicable quality control and

quality assurance requirements of 40 CFR 75.21, and validated according to 40 CFR 75.23, may be used. If the requirements of this Section 2.1.J.2.l. are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524. [§60.49Da(l) and (m)]

m. The owner or operator of an affected facility shall demonstrate compliance with the PM emission limit in Section 2.1 J.2.b. above as follows [§60.48Da(o)]:
   i. Except as provided for in paragraph ii below, the owner or operator shall demonstrate compliance with the PM emission limit according to the requirements in paragraphs (A) and (B) below and use a continuous opacity monitoring system (COMS) to demonstrate compliance with the opacity limit in Section 2.1 J.2.b.
      (A) The owner or operator must conduct a performance test to demonstrate initial compliance with the PM limit by the applicable date specified in §60.8(a). Thereafter, the owner or operator must conduct each subsequent performance test within 12 calendar months of the date of the prior performance test. Each performance test must be conducted according to the requirements in §60.8 using the test methods and procedures in §60.50Da. If the performance tests are not conducted as required or the results of any performance test are above the PM limit in Section 2.1.J.2.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.
      (B) The owner or operator must monitor the performance of each fabric filter (baghouse) operated to comply with the PM emission limit by using a COMS according to the requirements in paragraphs (I) through (VI) below.
         (I) Each COMS must meet Performance Specification 1 in 40 CFR Part 60, Appendix B.
         (II) The owner or operator must comply with the quality assurance requirements in paragraphs (o)(4)(ii)(A) through (E) of §60.42Da(o).
         (III) During each performance test conducted according to paragraph (A) above, the owner or operator must establish an opacity baseline level. The value of the opacity baseline level is determined by averaging all of the 6-minute average opacity values (reported to the nearest 0.1 percent opacity) from the COMS measurements recorded during each of the test run intervals conducted for the performance test, and then adding 2.5 percent opacity to the calculated average opacity value for all of the test runs. If the opacity baseline level is less than 5.0 percent, then the opacity baseline level is set at 5.0 percent.
         (IV) The owner or operator must evaluate the preceding 24-hour average opacity level measured by the COMS each boiler operating day excluding periods of affected source startup, shutdown, and malfunction. If the measured 24-hour average opacity emission level is greater than the baseline opacity level determined in paragraph (III) above, the owner or operator must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high opacity incident and take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the measured 24-hour average opacity to a level below the baseline opacity level.
         (V) The owner or operator must record the opacity measurements, calculations performed, and any corrective actions taken. The record of corrective action taken must include the date and time during which the measured 24-hour average opacity was greater than baseline opacity level, and the date, time, and description of the corrective action.
         (VI) If the measured 24-hour average opacity remains at a level greater than the opacity baseline level after 7 days, then a new PM emission performance test must be conducted according to paragraph (A) above and establish a new opacity baseline value according to paragraph (B) above. This new performance test must be conducted within 60 days of the date that the measured 24-hour average opacity was first determined to exceed the baseline opacity level unless a wavier is granted by the DAQ.

      If any of the above monitoring/recordkeeping requirements in this Section 2.1.J.2.m.i.(B) are not met or if the measured 24-hour average opacity level excluding periods of startup, shutdown, and malfunction is above the opacity baseline level after 7 days and the results of the new PM performance test required in paragraph (VI) above exceeds the PM limit, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 from the date the measured 24-hour average opacity was first determined to exceed the baseline opacity level until the date a new PM emission performance test is conducted and a new opacity baseline value is established.
   ii. As an alternative to meeting the compliance provisions specified in paragraph i above, the owner or operator may elect to install, certify, maintain, and operate a CEMS measuring PM emissions discharged from the affected facility to the atmosphere and record the output of the system as specified in paragraphs (A) through (H) below [§60.48Da(p)].
      (A) The owner or operator shall submit a written notification to the DAQ of intent to demonstrate compliance with Subpart Da by using a CEMS measuring PM. This notification shall be sent at least 30 calendar days before the initial startup of the monitor for compliance determination purposes. The owner or operator may discontinue operation of the CEMS monitor and instead return to demonstration of compliance with Subpart Da according to the requirements in §60.402Da(o) by submitting written notification to the DAQ of such intent at least 30 calendar days before shutdown of the monitor for compliance determination purposes.

(B) Each CEMS shall be installed, certified, operated, and maintained according to the requirements in §60.49Da(v).
(C) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under Subpart A of 40 CFR Part 60 or within 180 days of the date of notification to the DAQ required under paragraph (A) above, whichever is later.
(D) Compliance with the PM emissions limit shall be determined based on a 24-hour daily (block) average of the hourly arithmetic average emissions concentrations using the CEMS outlet data. The 24-hour block arithmetic average emission concentration shall be calculated using EPA Reference Method 19 of Appendix A of 40 CFR Part 60, section 4.1.
(E) At a minimum, valid CEMS hourly averages shall be obtained for 75 percent of all operating hours on a 30-day rolling average basis. Beginning on January 1, 2012, valid CEMS hourly averages shall be obtained for 90 percent of all operating hours on a 30-day rolling average basis. At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
(F) The 1-hour arithmetic averages required shall be expressed in million Btu/hr and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of Subpart A of 40 CFR Part 60.
(G) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (E) above are not met.
(H) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the DAQ or EPA Reference Method 19 of Appendix A of 40 CFR Part 60 to provide, as necessary, valid emissions data for a minimum of 90 percent (only 75 percent is required prior to January 1, 2012) of all operating hours per 30-day rolling average.

If any of the monitoring/recordkeeping requirements in this Section 2.1.J.2.m.ii. are not met or if the 24-hour daily (block) average of the hourly arithmetic average emissions concentrations excluding periods of startup, shutdown, and malfunction is above the PM limit in Section 2.1.J.2.b., the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

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

n. In addition to any other reporting required by 40 CFR §60.51Da or notification requirements to the EPA, the Permittee shall submit the DAQ in writing of the following:
   i. For sulfur dioxide, nitrogen oxides, and particulate matter emissions, the performance test data from the initial and subsequent performance test and from the performance evaluation of any CEMS (including the transmissometer) are submitted to the Director. [§60.51Da(a)]
   ii. For SO_2 and NO_X, the Permittee shall submit to the Director for each 24-hour period the following information:
      (A) Calendar date.
      (B) The average SO_2 and NO_X emission rates (ng/J, lb/million Btu, or lb/MWh) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the emission standards; and, description of corrective actions taken.
      (C) For owners or operators of affected facilities complying with the percent reduction requirement, percent reduction of the potential combustion concentration of SO_2 for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.
      (D) Identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 75 percent of the hours of operation of the facility; justification for not obtaining sufficient data; and description of corrective actions taken.
      (E) Identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, or malfunction.
      (F) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
      (G) Identification of times when hourly averages have been obtained based on manual sampling methods.
      (H) Identification of the times when the pollutant concentration exceeded full span of the CEMS.
      (I) Description of any modifications to CEMS which could affect the ability of the CEMS to comply with Performance Specifications 2 or 3.

      [§60.51Da(b)]
   iii. If the minimum quantity of emission data as required by §60.49Da is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of §60.48Da(h) shall be reported to the Director for that 30-day period:
      (A) The number of hourly averages available for outlet emission rates (no) and inlet emission rates (n_i) as

applicable.

(B) The standard deviation of hourly averages for outlet emission rates (s_o) and inlet emission rates (s_i) as applicable.

(C) The lower confidence limit for the mean outlet emission rate (E_o*) and the upper confidence limit for the mean inlet emission rate (E_i*) as applicable.

(D) The applicable potential combustion concentration.

(E) The ratio of the upper confidence limit for the mean outlet emission rate (E_o*) and the allowable emission rate (E_{std}) as applicable.

[§60.51Da(c)]

iv. For any periods for which opacity, SO_2 or NO_X emissions data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability. [§60.51Da(f)]

v. For the purposes of the reports required under §60.7, periods of excess emissions are defined as all 6-minute periods during which the average opacity exceeds the applicable opacity standards under §60.402Da(b). Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Director each calendar quarter. [§60.51Da(i)]

vi. The Permittee shall submit the written reports required under §60.51Da and subpart A to the Director semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period. The owner or operator may submit electronic quarterly reports for SO_2 and/or NO_x and/or opacity in lieu of submitting the written reports required under §60.51Da(b) and (i). The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. All instances of deviations from the requirements of this permit must be clearly identified. [§60.51Da(j) and (k)]

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

a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements in accordance with 15A NCAC 02D .0530, "Prevention of Significant Deterioration of Air Quality" as promulgated in 40 CFR 51.166. [15A NCAC 02D .0530]

b. The following emission limits shall not be exceeded [15A NCAC 02D .0530]:

POLLUTANT	BACT EMISSION LIMIT	CONTROL TECHNOLOGY
PM_{10}	0.012 lb/million Btu heat input (filterable only) 0.018 lb/million Btu heat input (filterable + condensable) Compliance with the PM_{10} emission limits shall be based on a calendar day averaging time except that compliance will be determined over a shorter time period (no less than 6 hours) if the source elects to run the reference test method for less than 24 hours. 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity	Spray dry absorber followed by fabric filter baghouse
Carbon Monoxide	0.120 lb/million Btu heat input Compliance with the carbon monoxide emission limit shall be based the reference test method (minimum 6 hours).	Good combustion control
VOCs	0.003 lb/million Btu heat input Compliance with the VOC emission limit shall be based the reference test method (minimum 6 hours).	Good combustion control
Sulfuric Acid Mist	0.005 lb/million Btu heat input Compliance with the sulfuric acid mist emission limit shall	Spray dry absorber followed by fabric filter baghouse

POLLUTANT	BACT EMISSION LIMIT	CONTROL TECHNOLOGY
	be based the reference test method (minimum 6 hours).	
Lead	0.000022 lb/million Btu heat input Compliance with the lead emission limit shall be based the reference test method (minimum 6 hours).	Fabric filter baghouse

Particulate matter, opacity, nitrogen oxides and mercury standards apply at all times except during periods of startup.

Testing [15A NCAC 02D .0530]

c. Under the provisions of North Carolina General Statute 143-215.108, the Permittee shall demonstrate compliance with the BACT emission limits by conducting annual performance tests, utilizing EPA reference methods, as in effect on the date of permit issuance, contained in 40 CFR 60, Appendix A, AND in accordance with a testing protocol (using testing protocol submittal form) approved by the Division of Air Quality, as follows:

POLLUTANT	TEST METHOD
PM_{10} (including condensables)	Methods 19 (O_2 dry basis factor), 5B and 202
Carbon Monoxide	Method 10
Volatile Organic Compounds	Method 25A or Method 18
Sulfuric Acid Mist	Method 8
Lead	Method 29

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

i. Test results shall be the average of 3 valid test runs.
ii. Each annual test shall be performed no more than 13 months after the previous test. The Permittee shall submit the emission test reports in accordance with the requirements in General Condition JJ.
iii. This permit may be revoked, with proper notice to the Permittee, or enforcement procedures initiated, if the results of any test(s) indicate that the facility does not meet applicable limitations.

If the performance tests are not conducted as required or the results of any performance test are above the limits given in Section 2.1.J.3.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

d. Filterable and condensable PM10 emissions from pulverized coal boilers have not been widely quantified at very low emission rates and may be subject to positive bias in the test method. If the owner/operator can demonstrate to the DAQ's satisfaction that the filterable PM10 emission rate of 0.012 lb/million Btu is exceeded during testing or does not provide adequate margin for regulatory compliance, the DAQ may modify the permit to revise the filterable PM10 allowable emission rate to a level not to exceed 0.015 lb/million Btu. Further, if the owner/operator can demonstrate to the DAQ's satisfaction that the actual condensable portion of PM10 causes the total PM10 emission rate of 0.018 lb/million Btu to be exceeded or does not provide adequate margin for regulatory compliance, the DAQ may modify the permit to revise the total (filterable + condensable) PM10 allowable emission rate to a level not to exceed 0.024 lb/million Btu, which is the level at which the modeling was performed. Only as a result of the initial compliance test required in Section 2.1 J.3.c. above may the emissions of PM10 from the Unit 6 boiler not be considered to be a violation so long as the filterable PM10 emissions, as determined by EPA Methods 5, 17, 201, or 201A, do not exceed 0.015 lb/million Btu and the total PM10 emissions, including condensable PM10 emissions, as determined by EPA Method 202 or other DAQ-approved method, do not exceed 0.024 lb/million Btu. The PM10 emission limits apply at all times. If the emission rate of PM10 is exceeded during the initial stack test a follow-up test shall be performed within 60 days of completion of the initial test.

e. If additional 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.J.3.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

f. To ensure compliance with the PM-10 emission limits in Section 2.1.J.3.b. above, the Permittee shall comply with the monitoring/recordkeeping requirements using the COMS option in Section 2.1.J.2.m.i.(B) or using the PM CEMS option in Section 2.1.J.2.m.ii. (whichever option applies) except that the BACT PM-10 limits apply instead of the NSPS PM limit. When using the COMS option, if any of the monitoring/recordkeeping requirements in Section 2.1 J.2.m.i.(B) for the BACT PM-10 limits are not met or if the measured 24-hour average opacity level excluding periods of startup

is above the opacity baseline level after 7 days and the results of the new PM-10 performance test required in Section 2.1.J.2.m.i.(B).(VI) exceed the PM-10 limits, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 from the date the measured 24-hour average opacity was first determined to exceed the baseline opacity level until the date a new PM-10 emission performance test is conducted and a new opacity baseline value is established. When using the PM CEMS option, if any of the monitoring/recordkeeping requirements in Section 2.1.J.2.m.ii. are not met for the BACT PM-10 limits or if the 24-hour daily (block) average of the hourly arithmetic average emissions concentrations excluding periods of startup is above the PM-10 limits in Section 2.1.J.3.b., the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

g. Excess emissions during startup, shutdown and malfunctions shall be evaluated pursuant to 15A NCAC 02D. 0535.

h. The Permittee shall monitor and record the heat input rate to the boiler in order to demonstrate compliance with the National Ambient Air Quality Standards. Each hourly average heat input rate and rolling 24-hr average heat input rate, using valid CEMS data, shall be recorded (written or electronic format) and made available to an authorized DAQ representative upon request. If the heat input rate exceeds 7850 million Btu/hr on a rolling 24-hr average basis, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

i. The Permittee shall submit excess emissions and monitoring system performance reports for the opacity continuous emissions monitoring system or the PM CEMS monitoring system, postmarked by the 30th day following the end of each calendar year quarter. All instances of deviations from the requirements of this permit must be clearly identified.

j. For PM10, carbon monoxide, VOCs, sulfuric acid mist, and lead emissions, the performance test reports for the initial and subsequent performance tests, and from the performance evaluation of any CEMS (including the transmissometer), shall be submitted within 60 days from completion of such tests. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING (40 CFR PART 64)

a. The Permittee shall comply with all applicable requirements of 15A NCAC 02D .0614 "Compliance Assurance Monitoring" for the coal/No. 2 fuel oil/natural gas-fired supercritical electric utility boiler (ID No. ES-6).

b. To provide a reasonable assurance of compliance with the BACT for sulfuric acid and condensable PM-10 in Section 2.1.J.3.b. above for the anticipated range of operations for the boiler, the Permittee shall comply with the monitoring/recordkeeping in this section to ensure proper operation and maintenance for the two spray dry absorbers (ID No. CD-20) and two fabric filters (ID No. CD-21).

c. **Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]
The Permittee shall complete the necessary electronic linkages, wiring, and software changes to the data acquisition handling system (DAHS) and data control system (DCS) and comply with the monitoring/recordkeeping in this section as follows:

CAM Requirement	Description
A. Indicators Measurement Approach	The following parameters shall be continuously monitored: 1. average flue gas temperature (°F) at the inlet of each fabric filter and at the flue gas exit from the air preheaters; 2. lime slurry feed rate (gpm) to the in-service Spray Dry Absorber (SDA) Pre-Mix Tank; and 3. status indicators showing SDA atomizers in service, coal feed in service, fabric filter bypass closed, and the active SDA Pre-Mix Tank (Tank A or B).
B. Indicator Ranges	For any operation when only coal or coal and natural gas are being burned, verify that: 1. When the average air preheater temperature (average of both preheaters) is less than or equal to 250 °F: i. fabric filter inlet temperature for each active flue gas duct is less than or equal to 240 °F (hourly average); ii. fabric filter system is in service (bypass closed).

	2. When the average air preheater temperature (average of both preheaters) is greater than 250 ºF: i. fabric filter inlet temperature for each active flue gas duct is less than or equal to 240 ºF (hourly average); ii. fabric filter system is in service (bypass closed); iii. one or more SDA atomizers are in service for each active flue gas duct; and iv. lime slurry feed rate to active pre-mix tank is 7 gpm or greater (hourly average). An excursion exists if any of these conditions are not met. Excursions trigger an inspection of the control system and corrective action to be initiated within one hour. <u>For operation when only No. 2 fuel oil or natural gas is being burned in the boiler:</u> Continuous compliance with the BACT for sulfuric acid and condensable PM-10 is assured without any operation of a control device. The sulfur content of the Unit 6 No. 2 fuel oil for startup is limited to 0.05 percent by weight.
C. Performance Criteria 1. Data Representativeness	1. The parameters monitored are representative of effective operation of the SDA/fabric filter system that captures and removes sulfuric acid and that portion of condensable PM-10. Flue gas temperature is measured to provide an average at three points across the duct at the fabric filter inlet and at the air preheater flue gas exit using dual element Type-E thermocouples. Fabric filter inlet temperature is the primary control point for the SDA/fabric filter system. Air preheater flue gas outlet temperature is an indication that the flue gas is warm enough to assure the SDA slurry spray can begin. (Note that the flue gas will cool between the air preheater outlet and the fabric filter inlet even without any liquid slurry injection.) Lime slurry feed to the Pre-Mix Tank, along with an indication that atomizers are in service on each SDA, provides verification that calcium is being injected into the system to neutralize the condensed sulfuric acid as it is captured in the fabric filter with coal ash. (Note that capture of acid on the coal ash itself is sufficient to remove the acid from the flue gas, and calcium is added to neutralize the acid for protection of equipment.) Lime slurry feed rate is measured using a 1.5 inch Rosemount Series 8705 Flowtube and Series 8723E Flow Transmitter.
2. Verification of Operational Status	2. Proper operation of the SDA and fabric filter system are verified based on digital indications of atomizers in service, fabric filter bypass closed; and one Pre-Mix Tank in service.
3. QA/QC Practices and Criteria	3. Dual element Type-E thermocouples are highly accurate devices that require no routine calibration. The QA/QC process is to verify that a signal is obtained and to replace any thermocouple that fails to provide a signal. The Rosemount flow-monitoring device will be operated and maintained according to the manufacture's recommendations. Frequent monitoring of flow readings verses valve position will be performed to ensure continued flow monitoring accuracy. Failure of the device to read properly will result in inspection and maintenance or replacement with a new or refurbished factory-calibrated device.

4. Monitoring Frequency	4. Continuous
5. Data Averaging Period	5. Hourly average for measured data (load, temperature and flow rate).
6. Data Collection	6. Data from the DCS (Digital Control System) will be compiled on an hourly basis. An alarm will be provided to the control room operators for any hour where an excursion condition is triggered. The CEMS DAHS will record the status of the CAM indicators and provide reports. Depending on the final data management design, some or all of the data compilation and alarm function may be handled by the CEMS DAHS using data provided from the DCS.

d. For any excursion, the Permittee shall initiate an inspection of the control system and initiate corrective action within one hour. In addition, the following corrective actions shall be taken as soon as practical:
   i. Identify cause of excursion.
   ii. Initiate actions to correct the cause of any excursions identified in step i above. Repair equipment that is not operating properly.
   iii. Document nature and cause of excursions in operations log.
   iv. If excursions occur for 5 percent or greater of the total operating time in a calendar quarter, stack tests shall be conducted as specified in Section 2.1.J.3.c. in the following quarter to demonstrate compliance with the BACT emission limits for sulfuric acid and condensable PM-10 in Section 2.1.J.3.b. If the unit operates less than 2200 hours during a calendar quarter, the facility may determine the percent of excursion time based on the most recent data from the current and previous quarters until 2200 hours are obtained. If any stack test exceeds 80 percent of the sulfuric acid or condensable PM-10 limit then retesting shall be conducted quarterly. Upon demonstration that the source is operating under 80 percent of the applicable limit, as shown by three consecutive quarterly stack tests, the source may resume the annual BACT stack tests in Section 2.1.J.3.c. If a test is required but no changes are being made to the most recently approved protocol for conducting the annual sulfuric acid or condensable PM-10 compliance test, it is not necessary for the facility to submit a new testing protocol 45 days prior to the scheduled test date as specified in General Condition JJ. Instead, the facility shall notify the Asheville Regional Office by email, fax, or letter, within 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 30 calendar days from the date of this notification.
   v. If excursions occur for 5 percent or greater of the total operating time in a calendar quarter for more than one quarter in a 60-month period, the Permittee shall develop and submit a Quality Improvement Plan in accordance with 40 CFR 64.8.
   vi. Provide notification to DAQ in accordance with reporting requirements in Section 2.1.J.4.f. below.

   If the above monitoring and recordkeeping is not performed or the results of any performance test are above the limits given in Section 2.1.J.3.b., the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0614.

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

e. The results of any stack test shall be reported within 30 days, and the test report shall be submitted within 60 days after the test.
f. The Permittee shall submit the quarterly reports as required under 15A NCAC 02D .0614 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, as applicable, and the corrective actions taken.
   iii. The percent of total operating time in a calendar quarter for which excursions occur.

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

State-only Requirement

5. 15A NCAC 02Q .0309: TERMINATION, MODIFICATION AND REVOCATION OF PERMITS

(ADDITIONAL REQUIREMENTS FOR SULFUR DIOXIDE AND NITROGEN OXIDES)

a. Actual emissions of nitrogen oxides from the boiler (ID No. ES-6) shall be no greater than 0.07 lb/million Btu as measured by the continuous emissions monitoring system (CEMS) on a rolling 30-day average*. The emissions limit shall not apply during periods of startup, shutdown defined for purposes of this nitrogen oxides emissions limit as periods when a boiler is being brought into operation or out of operation and the gas temperature at the Selective Catalytic Reduction system is below 620 degrees Fahrenheit.
b. Actual emissions of sulfur dioxide from the boiler (ID No. ES-6) shall be no greater than 0.12 lb/million Btu as measured by the continuous emissions monitoring system (CEMS) on a rolling 30-day average*.

Testing [15A NCAC 02Q .0308(a)(1)]
c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ.

Monitoring/Recordkeeping [15A NCAC 02Q .0308(a)(1)]
d. The Permittee shall demonstrate compliance with this section by determining nitrogen oxides and sulfur dioxide emissions in pounds per million Btu using a CEMS meeting the requirements of 40 CFR Part 75 except that data shall not be bias-adjusted and data shall not include data substituted using the missing data procedures of 40 CFR Part 75. Compliance with nitrogen oxides and sulfur dioxide emission standards shall be determined based on a 30-day rolling average. To compute the 30-day rolling average, determine the valid average hourly values from 30 successive boiler-operating days.* The CEMS shall obtain emissions data for at least 90 percent of all operating hours for each 30 successive boiler-operating days. The sum of all valid data for each 30 successive operating days shall be divided by the number of valid hourly values during the period less the number of hours excluded due to startup, shutdown, or malfunction. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75.

Reporting [15A NCAC 02Q .0308(a)(1)]
e. The Permittee shall submit the continuous emissions monitoring data showing the 30-day rolling average values in pounds per million Btu for each 30-day 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. The Permittee may submit electronic quarterly reports for nitrogen oxides and sulfur dioxide in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period.
f. CEMS Availability - The Permittee shall submit sulfur dioxide and nitrogen oxides CEMS 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.

* For purposes of this condition, boiler operating day is any 24-hour period during which fossil fuel is combusted in a steam generating unit for the entire 24 hours.

State-only Requirement
6. PART I SECTION 5.4 of S1587 (GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2005)

a. The Permittee shall install advanced control technology designed to remove ninety-nine percent (99%) of baseline emissions of SO_2 as defined in 15A NCAC 02D .0530(b)(1)(A) from the electric generating unit (ID No. ES-6). The Permittee shall operate the advanced control technology at any time that electricity is being produced by the unit other than during startup or when firing only natural gas.
b. Actual emissions of SO_2 from the boiler (ID No. ES-6) shall be no greater than 0.15 lb/million Btu as measured by the continuous emissions monitoring system (CEMS) on a rolling 30-day average*.

Testing [15A NCAC 02Q .0308(a)(1)]

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

Monitoring/Recordkeeping [15A NCAC 02Q .0308(a)(1) and Part I Section 5.4 of S1587]

d. The Permittee shall ensure compliance with Part I Section 5.4 of Ratified S1587 by determining sulfur dioxide emissions in pounds per million Btu using a CEMS 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 based on a 30-day rolling average. To compute the 30-day rolling average, determine the valid average hourly values from 30 successive boiler-operating days* (missing data shall be filled in accordance with 40 CFR Part 75), and the sum shall be divided by 720. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75.

Reporting [15A NCAC 02Q .0308(a)(1)]

e. The Permittee shall submit the continuous emissions monitoring data showing the 30-day rolling average values in pounds per million Btu for each 30-day 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. The Permittee may submit electronic quarterly reports for SO2 in lieu of submitting the written reports. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period.

f. CEMS Availability - The Permittee shall submit sulfur dioxide CEMS 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.

* For purposes of this condition, boiler-operating day is any 24-hour period during which fossil fuel is combusted in a steam-generating unit for the entire 24 hours.

State-only Requirement

7. THE FOLLOWING ADDITIONAL REQUIREMENTS FOR HAZARDOUS AIR POLLUTANTS SHALL APPLY:

a. Emissions from the boiler (ID No. ES-6) cannot exceed 10 tons per year for any single Hazardous Air Pollutant (HAP), as listed in Section 112(b) of the federal Clean Air Act, or 25 tons per year of any combination of HAPs.

b. The Permittee shall at all times operate the spray dry absorber, and the flue gas desulfurization scrubber with the minimum number of limestone slurry recycle spray pumps to achieve 99.913% hydrogen chloride (HCl) control efficiency as measured during the first required stack test (see Testing below).

Testing [15A NCAC 02Q .0308(a)(1)]

c. Under the provisions of North Carolina General Statute 143-215.108, the Permittee shall perform quarterly stack tests for HCl. The testing shall be conducted at loads greater than 90% of the maximum production rate in accordance with a testing protocol (using testing protocol submittal form) approved by the Division of Air Quality using coal consistent in chlorine content and HHV with coals used throughout the previous 12-month period. Details of the emissions testing requirements including test reports submittal can be found in Section 3 - General Condition JJ.
   i. Test results shall be the average of 3 valid test runs.
   ii. If test results show actual HCl emissions are greater than 1.83 lb/hr for any two quarters in a rolling 12-month period, the Permittee shall install, operate and maintain a continuous emission monitor (CEM) for HCl.
   iii. If test results show actual HCl emissions are below 1.83 lb/hr for four consecutive quarters, then only annual testing is required as long as emissions remain below 1.83 lb/hr during the annual tests. Each annual test shall be performed no more than 13 months after the previous test.
   iv. If test results from any annual testing (in Section 2.1.J.7.c.iii. above) show actual HCl emissions are greater than 1.83 lb/hr, then quarterly testing shall resume.

State-only Requirement

8. THE FOLLOWING ADDITIONAL REQUIREMENTS FOR CARBON DIOXIDE IMPACT APPLY:

a. Permittee shall mitigate the potential impacts of carbon dioxide emissions from Unit 6 pursuant to the Greenhouse Gas Reduction Plan ("Plan") (attached). The Plan provides for retirement of 800 megawatts of older coal-fired electric generating capacity by December 31, 2018 as well as a commitment by the Permittee to take additional action to render Cliffside Unit 6 carbon neutral by 2018. The retirements required under the Plan will be in addition to the retirement of Cliffside Units 1-4* required under Section 2.2 C.(1)(a)(i) of Air Quality Permit 04044T28 (January 29, 2008). The retirement schedule set out in the Plan may be revised, subject to approval by the DAQ, if the North Carolina Utilities Commission determines that the scheduled retirement of any unit identified for retirement pursuant to the Plan will have a material impact on the reliability of Permittee's electric generating system. Nothing in this condition shall be interpreted to prohibit Permittee from receiving credit for emissions reductions realized as a result of the retirement of units identified in the Plan.

* These Units were retired effective October 1, 2011.

K. One No. 2 fuel oil/propane-fired auxiliary boiler (ID No. ES-AuxBU6)

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 lb/million Btu heat input	15A NCAC 02D .0516
	0.30 weight percent sulfur content fuel	15A NCAC 02D .0524 (40 CFR Part 60, Subpart Db)
	0.05 weight percent sulfur content fuel	15A NCAC 02D .0501(c)
Nitrogen Oxides (as NO_2)	0.30 weight percent nitrogen content fuel	15A NCAC 02D .0524 (40 CFR Part 60, Subpart Db)
Particulate Matter	0.10 lb/million Btu heat input	15A NCAC 02D .0503
	0.30 weight percent sulfur content fuel 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity	15A NCAC 02D .0524 (40 CFR Part 60, Subpart Db)
PM_{10}	0.014 lb/million Btu heat input (filterable only) 0.024 lb/million Btu heat input (filterable + condensable)	15A NCAC 02D .0530
Carbon Monoxide	0.036 lb/million Btu heat input	
VOCs	0.0024 lb/million Btu heat input	
Hazardous Air Pollutants	See Section 2.2.E.1.	15A NCAC 02D .1111 (40 CFR 63, Subpart DDDDD)

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

a. In addition to any control or manner of operation necessary to meet emission standards in 15A NCAC 02D .0500, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards of 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in 15A NCAC 02D .0500 are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls. [15A NCAC 02D .0501(c)]

b. The maximum sulfur content of the fuel oil received and burned in the Auxiliary Boiler (ID No. ES-AuxBU6) shall not exceed 0.05 percent by weight.

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

c. To ensure compliance with the sulfur content limit of 0.05 percent by weight, the Permittee shall monitor the sulfur

content of the fuel oil by using fuel oil supplier certification per total shipment received. The fuel oil supplier certifications shall be recorded and maintained in a logbook (written or electronic format) per total shipment. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(c) if the sulfur content of the fuel oil exceeds the limit in Section 2.1.K.1.b. above or if fuel oil supplier certifications are not recorded and maintained.

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

d. No reporting is required.

2. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

a. Emissions of particulate matter from the combustion of fuel oil or propane, that are discharged from these sources into the atmosphere shall not exceed 0.10 pounds per million Btu heat input. [15A NCAC 02D .0503 (a)]

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 K.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

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

c. No monitoring/recordkeeping/reporting is required for emissions of particulate matter from this source to ensure compliance with this regulation.

3. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from this source shall not exceed 2.3 pounds per million Btu heat input when burning propane. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 02D .0516]

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

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

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

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

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60, SUBPART Db)

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

b. The boiler shall only fire No. 2 fuel oil (except for propane during startup) with a nitrogen content of 0.30 weight percent or less and operation of the boiler is limited to a combined annual capacity factor of 10 percent or less. [§60.44b(j)]

c. The following emission limits shall not be exceeded [15A NCAC 02D .0524]:
   i. Sulfur Dioxide – Units firing only oil that contains no more than 0.30 weight percent sulfur are exempt from all other sulfur dioxide emission limits. [§60.42b(k)(2)]
   ii. Particulate Matter – Units firing only oil that contains no more than 0.30 weight percent sulfur are not subject to the PM limits. [§60.43b(h)(5)]
   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 for one six-minute period per hour of not more than 27 percent opacity. [§60.43b(f)]
   iii. Nitrogen Oxides – The boiler is not subject to the nitrogen oxides emission limits as long as the requirements in Section 2.1 K.4.b. above (nitrogen content not to exceed 0.30 weight percent and annual capacity factor does not exceed 10 percent) are met. [§60.44b(j) and (k)]

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

d. The owner or operator shall demonstrate the maximum heat input capacity of the steam generating unit by operating the facility at a maximum capacity for 24 hours in accordance with 40 CFR §60.46b(g). This demonstration of maximum heat input capacity shall be made during the initial performance test. It shall be made within 60 days after

achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of the facility. The Director may require subsequent demonstrations at any other time. If this demonstration indicates that the maximum heat input capacity of the affected facility is less than that stated by the manufacturer of the affected facility, the maximum heat input capacity determined during this demonstration shall be used to determine the capacity utilization rate for the affected facility. Otherwise, the maximum heat input capacity provided by the manufacturer is used. If the requirements of this Section 2.1.K.4.d. are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524. [§60.46b(g)]

e. The owner or operator of an affected facility who elects to demonstrate that the affected facility burns only very low sulfur oil under §60.42b(k)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier which certify that the oil meets the definition of distillate oil as defined in §60.41b. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained. [§60.45b(j) and 60.49b(r)]

f. The owner or operator of an affected facility that burns very low sulfur oil is not subject to the emissions monitoring requirements for sulfur dioxide if the owner or operator obtains and maintains fuel receipts as described in Section 2.1 K.4.e. above. [§60.47b(f)]

g. The owner or operator of an affected facility that burns only liquid (excluding residual oil) or gaseous fuels with potential SO_2 emissions of 0.060 lb/million Btu or less, does not use a post-combustion technology to reduce SO_2 or PM emissions, and maintains fuel records of the sulfur content of the fuels burned as described in Section 2.1 K.4.e. above shall conduct a Method 9 performance test to demonstrate compliance with the visible emissions limit within 180 days after initial startup of the facility, and shall comply with either paragraphs §60.48b(a)(1), (a)(2), or (a)(3). [§60.48b(a) and §60.48b(j)(2)]

h. The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained. [§60.49b(d)(1)]

i. The owner or operator shall conduct Method 9 performance tests according to the applicable schedule in paragraphs i through iv below, as determined by the most recent Method 9 performance test results. The observation period for Method 9 performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation. [§60.48b(a)]
   i. If no visible emissions are observed, a subsequent Method 9 performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;
   ii. If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;
   iii. If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or
   iv. If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.

   If the requirements of this Section 2.1.K.4.i. are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

j. The owner or operator shall maintain records of each Method 9 and Method 22 performance test including the following information: [§60.49b(f)]
   i. For each performance test conducted using Method 9, the owner or operator shall keep records including the following information:
      (A) Dates and time intervals of all opacity observation periods;
      (B) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and
      (C) Copies of all visible emission observer opacity field data sheets.
   ii. For each performance test conducted using Method 22, the owner or operator shall keep records including the following information:
      (A) Dates and time intervals of all visible emissions observation periods;
      (B) Name and affiliation for each visible emission observer participating in the performance test;
      (C) Copies of all visible emission observer opacity field data sheets; and

(D) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

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

k. The owner or operator shall maintain records of the following information for each steam generating unit operating day:
   i. Calendar date,
   ii. The number of hours of operation, and
   iii. A record of the hourly steam load.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained. [§60.49b(p)]

l. All records shall be maintained for a period of at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The records can be kept offsite for the remaining 3 years. [§60.49b(o)] The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the records, meeting the requirements in this Section 2.1.K.4.l., are not maintained.

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

m. In addition to any other reporting required by 40 CFR §60.49b or notification requirements to the EPA, the Permittee shall submit to the DAQ in writing of the following:
   ii. The maximum heat input capacity data from the demonstration of the maximum heat input capacity of the boiler described in Section 2.1.K.4.d. above. [§60.49b(b)]
   ii. The excess emission reports for any excess emissions of opacity standards that occurred during the reporting period postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. [§60.49b(h)(1)]
   iv. All instances of deviations from the requirements of this permit must be clearly identified.

n. The Permittee shall submit to the Director a semi-annual report containing the following information 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.
   i. The annual capacity factor over the previous 12 months, and
   ii. The results of any nitrogen oxides emission tests required during the reporting period, the hours of operation during the reporting period, and the hours of operation since the last nitrogen oxides emission test. [§60.49b(q)]

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

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

a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements in accordance with 15A NCAC 02D .0530, "Prevention of Significant Deterioration of Air Quality" as promulgated in 40 CFR 51.166. [15A NCAC 02D .0530]

b. The following emission limits shall not be exceeded [15A NCAC 02D .0530]:

POLLUTANT	BACT EMISSION LIMIT	CONTROL TECHNOLOGY
PM_{10}	0.014 lb/million Btu heat input (filterable only) 0.024 lb/million Btu heat input (filterable + condensable)	Low ash fuel 10% capacity factor
Carbon Monoxide	0.036 lb/million Btu heat input Compliance with the carbon monoxide emission limit shall be based the reference test method (minimum 6 hours).	Good combustion control
VOCs	0.0024 lb/million Btu heat input	Good combustion control

c. The following emission limits apply in order to demonstrate compliance with the National Ambient Air Quality Standards as required by 15A NCAC 02D .0530; 40 CFR 51.166(k):

POLLUTANT	EMISSION LIMIT				
	Annual (tons/yr)[a]	per 24-hour (lb)	per 8-hour (lb)	per 3-hour (lb)	per 1-hour (lb)
Carbon Monoxide	3.00		54.72		6.84
PM_{10}	2.00*	109.44*			

* Assumes 100% of TSP is PM-10 and operation at 876 hours per year. Boiler is limited to a 10% annual capacity factor to qualify as a limited-use boiler for NSPS and MACT.

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

d. The Permittee shall monitor and record the heat input rate to the boiler in order to demonstrate compliance with the National Ambient Air Quality Standards. Each hourly average heat input rate and rolling 24-hr average heat input rate, using valid CEMS data, shall be recorded (written or electronic format) and made available to an authorized DAQ representative upon request. If the heat input rate exceeds 190 million Btu/hr on a rolling 24-hr average basis, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

e. No reporting is required.

L. One multi-cell cooling tower (ID No. ES-CT1)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons/hr or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons/hr Where: E = allowable emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 02D .0515
Particulates/PM-10	As defined in specific conditions	15A NCAC 02D .0530

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

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

$$E = 4.10 \times P^{0.67} \quad \text{for } P \leq 30 \text{ tons per hour}$$

or

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

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

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

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

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

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

c. No monitoring/recordkeeping/reporting is required for particulate matter emissions from this source.

2. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. The following emission limits apply in order to demonstrate compliance with the National Ambient Air Quality Standards as required by 15A NCAC 02D .0530; 40 CFR 51.166(k):

AFFECTED SOURCE	POLLUTANT	BACT EMISSION LIMIT	
		Annual (tons/yr)[a]	per 24-hour (lb)
Multi-cell cooling tower (ID No. ES-CT1*)	PM_{10}	12.94	70.8

[a] Tons per rolling consecutive 12-month period.

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

b. No monitoring/recordkeeping/reporting is required for particulate emissions from this source.

M. One No. 2 fuel oil/diesel-fired emergency generator (ID No. ES-EG6) One No. 2 fuel oil/diesel-fired emergency firewater pump (ID No. ES-FWP)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible Emissions	20 percent opacity (except during startup, shutdowns, and malfunctions)	15A NCAC 02D .0521
VOC NOx CO PM Sulfur Dioxide (as fuel sulfur content)	See Section 2.2 F.1.	15A NCAC 02D .0524 (40 CFR 60, Subpart IIII)
Various	See Section 2.2.A.1.	15A NCAC 02D .0530
HAPs	- (ID No. ES-EG6 only)	15A NCAC 02D .1111 (40 CFR 63, Subpart ZZZZ)[3]

1. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources shall not be more than 20 percent opacity (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. [15A NCAC 02D .0521(c)]

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

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

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

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of No. 2 fuel oil/diesel in these sources.

2. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. The following Best Available Control Technology (BACT) limit shall not be exceeded: [15A NCAC 02D .0530]:

AFFECTED SOURCE	POLLUTANT	BACT**	CONTROL

[3] No requirements remained to comply under this applicable requirement.

		(g/hp-hr)	TECHNOLOGY
Emergency Generator (ID No. ES-EG6)	Nitrogen Oxides + VOCs*	4.8	Low-NOx engine design 0.05% sulfur fuel oil Good combustion control Max. 100 hr/yr usage
	Carbon Monoxide	0.5	Good combustion control Max. 100 hr/yr usage
	PM_{10}	0.15	0.05% sulfur fuel oil Max. 100 hr/yr usage
Emergency Firewater Pump (ID No. ES-FWP)	Nitrogen Oxides + VOCs*	7.8 (2008 and earlier) 3.0 (2009 and later)	Low-NOx engine design 0.05% sulfur fuel oil Good combustion control Max. 100 hr/yr usage
	Carbon Monoxide	0.5	Good combustion control Max. 100 hr/yr usage
	PM_{10}	0.40 (2008 and earlier) 0.15 (2009 and later)	0.05% sulfur fuel oil Max. 100 hr/yr usage

* These diesel engines are not subject to BACT for NOx. However, for purposes of BACT for VOC, the BACT standard is based on federal model year performance standards for diesel engines which specify a limit based on the combined NO + VOC emissions.

** BACT emission limits shall apply at all times. Excess emissions during startup, shutdown and malfunctions shall be evaluated pursuant to 15A NCAC 02D. 0535.

b. The following emission limits apply in order to demonstrate compliance with the National Ambient Air Quality Standards as required by 15A NCAC 02D .0530 and 40 CFR 51.166(k):

AFFECTED SOURCE	POLLUTANT	EMISSION LIMIT				
		Annual (tons/yr)[a]	per 24-hour (lb)	per 8-hour (lb)	per 3-hour (lb)	per 1-hour (lb)
Emergency Generator (ID No. ES-EG6)	Carbon Monoxide			107.76		13.47
	PM_{10}	0.19*	3.89*			
Emergency Firewater Pump (ID No. ES-FWP)	Carbon Monoxide			19.68		2.46
	PM_{10}	0.04*	0.71*			

* Assumes 100% of TSP as PM10 and operation at 100 hours per year. The engines are limited to 100 hours per year to qualify as emergency-use under NSPS.

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

c. The hours of operation for these sources shall be less than 100 per consecutive 12-month period.

d. The Permittee shall record monthly and total annually the hours of operation for these sources. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained.

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

e. The Permittee shall submit a summary report of monitoring and recordkeeping activities within 30 days after each calendar year quarter, due and post marked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 for the 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.

N. Unit 6 Coal Handling consisting of the following:

Unit 6 Coal Reclaim Hopper (ID No. ES-C19)

Unit 6 Coal Blend Reclaim Hopper (ID No. ES-C20)

Unit 6 Boiler House Coal Handling Point Source:

Coal Reclaim Conveyor RC11 to U6 Boiler Building (ID No. ES-C27), Coal Reclaim Conveyor RC12 to U6 Boiler Building (ID No. ES-C28), Unit 6 Tripper Conveyor TR2 (ID No. ES-C29), and Unit 6 Tripper Conveyor TR3 (ID No. ES-C30) with associated bagfilter (ID No. CD-28)

Unit 6 Coal Blend Reclaim Conveyor (ID No. ES-C31)

Coal Reclaim Feeders for Unit 6 (ID Nos. ES-VF1 thru ES-VF4)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10\ P^{0.67}$ Where: E = allowable particulate emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 02D .0515
Particulate Matter	0.010 gr/dscf (ID No. CD-28)	15A NCAC 02D .0524 (40 CFR Part 60, Subpart Y)
Visible Emissions	10 percent opacity (ID Nos. ES-C19, ES-C20, ES-C27, ES-C28, ES-C29, ES-C30, CD-28, ES-C31 and ES-VF1 thru VF-4)	
PM_{10}	See Section 2.2 A (all sources except ES-C20 and ES-C31)	15A NCAC 02D .0530
Toxic Air Pollutants	See Section 2.2 D.1.	15A NCAC 02D .1100

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

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

$$E = 4.10 \times P^{0.67}$$

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

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

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

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

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

c. Particulate matter emissions from sources (ID Nos. ES-C27, ES-C28, ES-C29 and ES-C30) shall be controlled by the bagfilter (ID No. CD-28). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. A monthly visual inspection of the system ductwork and material collection unit for leaks; and
   ii. An annual (for each 12 month period following the initial inspection) internal inspection of the bagfilter's structural integrity.

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

d. The results of inspection and maintenance in Section 2.1.N.1.c above for the sources (ID Nos. ES-C27, ES-C28, ES-C29 and ES-C30) shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date and time of each recorded action;
   ii. The results of each inspection;
   iii. The results of any maintenance performed on the bagfilters; and
   iv. Any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

e. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.
f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60 SUBPART Y)

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

Emission Standards [40 CFR 60.254]

b. Particulate matter emissions from the mechanical vent (ID Nos. CD-28) shall not exceed 0.010 gr/dscf.
c. Visible emissions (except during startup, shutdowns, and malfunction) from sources (ID Nos. ES-C19, ES-C20, ES-C27, ES-C28, ES-C29, ES-C30, CD-28, ES-C31, and ES-VF1 thru VF-4) shall be less than 10 percent opacity.

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

d. The Permittee shall conduct performance tests for the mechanical vent subject to a PM emissions standard (ID Nos. CD-28) according to the requirements of §60.8 and the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards. An initial performance test must be performed and thereafter, a new performance test must be conducted as follows:
   i. If the results of the most recent performance test demonstrate that emissions are greater than 50 percent of the applicable emissions standard, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.
   ii. If the results of the most recent performance test demonstrate that emissions are 50 percent or less of the applicable emissions standard, a new performance test must be conducted within 24 calendar months of the date that the previous performance test was required to be completed.
   iii. An owner or operator of an affected facility that has not operated for the 60 calendar days prior to the due date of a performance test is not required to perform the subsequent performance test until 30 calendar days after the next operating day.

   If the results of any tests are above the limit given in Section 2.1.N.2.b. above or the requirements of this Section 2.1 N.2.d. are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

e. The Permittee shall conduct performance tests for the sources subject to an opacity standard (ID Nos. ES-C19, ES-C20[4], ES-C27, ES-C28, ES-C29, ES-C30, CD-28, ES-C31[2] and ES-VF1 thru VF-4) according to the requirements of §60.8 and the methods identified in §60.257 to demonstrate compliance with the applicable emissions standards. An initial performance test must be performed and thereafter, a new performance test must be conducted as follows:
   i. If any 6-minute average opacity reading in the most recent performance test exceeds half the applicable opacity limit, a new performance test must be conducted within 90 operating days of the date that the previous performance test was required to be completed.

[4] Test point for Unit 6 Coal Blend Reclaim Hopper (ID No. ES-C20) is where the conveyor ES-C31/tunnel structure comes aboveground. Test point for Unit 6 Coal Blend Reclaim Conveyor (ID No. ES-C31) is at conveyor drop point.

ii. If all 6-minute average opacity readings in the most recent performance test are equal to or less than half the applicable opacity limit, a new performance test must be conducted within 12 calendar months of the date that the previous performance test was required to be completed.

If the results of any tests are above the limit given in Section 2.1.N.2.c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

f. For the sources enclosed in a building (ID Nos. ID Nos. ES-C19, ES-C27, ES-C28, ES-C29, ES-C30, CD-28 and ES-VF1 thru VF-4) for which emissions from the building do not exceed any of the applicable standards in Sections 2.1.N.2.b. and c. above, then the source shall be deemed to be in compliance with such standards.

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

g. The Permittee shall maintain in a logbook (written or electronic) on-site and make it available upon request. The logbook shall record the following:
   i. The manufacturer's recommended maintenance procedures and the date and time of any maintenance and inspection activities and the results of those activities. Any variance from manufacturer's recommendations shall be noted.
   ii. The date and time of periodic coal preparation and processing plant visual observations, noting those sources with visible emissions along with corrective actions taken to reduce visible emissions. Results from the actions shall be noted.
   iii. The amount and type of coal processed each calendar month.
   iv. The amount of chemical stabilizer or water purchased for use in the coal preparation and processing plant.
   v. Monthly certification that the dust suppressant systems were operational when any coal was processed and that manufacturer's recommendations were followed for all control systems. Any variance from the manufacturer's recommendations shall be noted.

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

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

h. For the purpose of reports required under §60.7(c), the Permittee shall report semiannually periods of excess emissions of all 6-minute average opacities that exceed the applicable standard.
i. The Permittee shall submit the results of all performance tests consistent with the provisions of section §60.8.
j. Within 60 days after the date of completing each performance evaluation conducted to demonstrate compliance, the Permittee shall submit the test data to EPA by successfully entering the data electronically into EPA's WebFIRE data base available at *http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main.* For performance tests that cannot be entered into WebFIRE (*i.e.,* Method 9 of appendix A-4 of Part 60 opacity performance tests) the Permittee shall mail a summary copy to United States Environmental Protection Agency; Energy Strategies Group; 109 TW Alexander DR; mail code: D243-01; RTP, NC 27711.
k. All instances of deviations from the requirements of this permit must be clearly identified.

O. Unit 6 Ash Handling consisting of the following:

Wet Bottom Ash Transfer and Pickup (ID No. ES-A1) and Dry Fly Ash Pickup at Boiler Economizer (Transfers to Wet Bottom Ash System) (ID No. ES-A3)

Dry Fly Ash Pickup at Bagfilter (ID No. ES-A9), Dry Fly Ash Pickup at Air Heater (ID No. ES-8), and Ash Vacuum Exhauster (ID No. ES-A5), with associated bagfilter (ID No. CD-31)

Dry Fly Ash Silo (ID No. ES-A6) and Dry Fly Ash Truck Loading (ID No. ES-A7), with associated bagfilter (ID No. CD-30)

Dry Fly Ash Discharge to Truck (ID No. ES-A12)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation

Particulate Matter	$E = 4.10\ P^{0.67}$ Where: E = allowable particulate emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 02D .0515
Visible Emissions	20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.	15A NCAC 02D .0521
PM_{10}	See Section 2.2.A.	15A NCAC 02D .0530
Toxic Air Pollutants	See Section 2.2.D.1.	15A NCAC 02D .1100

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

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

$$E = 4.10 \times P^{0.67}$$

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

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

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

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

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

c. Particulate matter emissions from the sources (ID Nos. ES-A6 and ES-A7) shall be controlled by the bagfilter (ID No. CD-30). Particulate matter emissions from the sources (ID Nos. ES-A5, ES-A8, and ES-A9) shall be controlled by the bagfilter (ID No. CD-31). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. A monthly visual inspection of the system ductwork and material collection unit for leaks; and
   ii. An annual (for each 12 month period following the initial inspection) internal inspection of the bagfilter's structural integrity.

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

d. The results of inspection and maintenance in Section 2.1.O.1.c. above for the sources (ID Nos. ES-A6, ES-A7, ES-A8, ES-A5, and ES-A9) shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date and time of each recorded action;
   ii. The results of each inspection;
   iii. The results of any maintenance performed on the bagfilters; and
   iv. Any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

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

f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each

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

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

a. Visible emissions from these sources (ID Nos. ES-A1, ES-A3, ES-A5, ES-A6, ES-A7, ES-A8, and ES-A9 and ES-A12) shall not be more than 20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

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

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

c. To ensure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. For sources enclosed in a building or underground, the observation shall be made around any opening from the enclosure. If visible emissions from these sources are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 02D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2610 for 30 minutes is below the limit given in Section 2.1.O.2.a. above. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

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

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

c. 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.

P. Lime Silo for SDA (ID No. ES-LSSDA) with associated bagfilter (ID No. CD32-3)

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	15A NCAC 02D .0510
PM_{10}	See Section 2.2.A.	15A NCAC 02D .0530
Fugitive Non-Process Dust Emissions	See Section 2.2.B.1.	15A NCAC 02D .0540

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

a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent exceeding the ambient air quality standards beyond the property line for particulate matter, both PM10 and total suspended

particulates.

b. Fugitive non-process dust emissions shall be controlled by 15A NCAC 02D .0540.

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

c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.2 A.1.a. or b. below, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0510.

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

d. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there 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 internal inspection of the bagfilters structural integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0510 if the ductwork and bagfilters are not inspected and maintained.

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

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

f. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 02D .0510 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2610 for 30 minutes shall not exceed 20 percent opacity. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0510.

Q. Facility haul roads (ID No. FVehicle)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM_{10}	See Section 2.2.A.1.	15A NCAC 02D .0530

R. Portable hydrated lime sorbent receiving trailer (ID No. ES-U5Sorb1) and portable hydrated lime sorbent metering trailer (ID No. ES-U5Sorb2) with associated bagfilter (ID No. CD-U5SorbBf)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons/hr, or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons/hr where: E = allowable emission rate in pounds per hour P = process weight rate in tons per hour	15A NCAC 02D .0515
visible emissions	20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period	15A NCAC 02D .0521

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

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

$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons/hr, or
$E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons/hr

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

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

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

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

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

c. Particulate matter emissions from these sources shall be controlled by the bagfilter (ID No. CD-U5SorbBf). To ensure that optimum control efficiency is maintained, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement must include the following:
   i. an annual internal inspection of the bagfilter's structural integrity; and
   ii. a monthly visual inspection of the system ductwork, and material collection unit for leaks.

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

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

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

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

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

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

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

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1.R.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. To ensure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following start-

up of the sources. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) immediately shutdown the source and repair the malfunction, (b) be deemed to be in noncompliance with 15A NCAC 02D .0521 or (c) demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2610 for 30 minutes is below the limit given in Section 2.1.R.2.a. above. If the demonstration in (c) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

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

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

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

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

A. One railcar coal unloading station and two unloading hoppers (ID No. C-1)
Two belt feeders (ID Nos. BF-1 and BF-2)
Three coal stockout conveyors (ID Nos. C-2, C-3, and C-4)
One circular stacker and boom conveyor (ID No. C-7)
Coal storage pile fugitives (ID Nos. C-9 and C-10)
Coal bulldozing and reclaim hoppers (ID Nos. C-11)
One coal crusher house (ID No. C-15) and associated dust extraction system (ID No. CD-34)
One railcar limestone unloading station (ID No. LS-1) and two unloading hoppers (ID Nos. LS-1A and LS-1B)
Two belt feeders (ID Nos. BF-3 and BF-4)
One limestone stockout conveyor (ID No. LS-6)
Limestone storage pile (ID No. LS-8)
Limestone bulldozing and reclaim hoppers (ID Nos. LS-9, LS-10A, and LS-10B)
Two reclaim feeders (ID Nos. VF-40 and VF-41)
One limestone reclaim conveyor (ID No. LS-11), one limestone silo fill conveyor (ID No. LS-12), two limestone silos (ID Nos. LS13-1 and LS13-2), and associated baghouses (ID Nos. CD32-1 and CD32-2)
Two limestone ball mills (ID Nos. LSBM-1 and LSBM-2)
Two gypsum stockout conveyors (ID Nos. GS-3 and GS-4)
Gypsum truck loading (ID No. GS-9)
One gypsum storage pile (ID No. GS-5)
Landfill for ash and gypsum (ID No. Landfill)
One diesel fuel-fired emergency quench water pump (ID No. QP5)
U6 Coal Reclaim Hoppers (ID No. ES-C19)
Coal Reclaim Conveyor RC11 to U6 Boiler Building (ID No. ES-C27), Coal Reclaim Conveyor RC12 to U6 Boiler Building (ID No. ES-C28), Unit 6 Tripper Conveyor TR2 (ID No. ES-C29), and Unit 6 Tripper Conveyor TR3 (ID No. ES-C30) with associated bagfilter (ID No. CD-28)
Coal Reclaim Feeders for Unit 6 (ID Nos. ES-VF1 thru ES-VF4)
Wet Bottom Ash Transfer and Pickup (ID No. ES-A1) and Two Dry Fly Ash Pickups at Boiler Economizer and Air Heater (Transfers to Wet Bottom Ash System) (ID No. ES-A3 and ES-A8)
Dry Fly Ash Pickup at Bagfilter (ID No. ES-A9), and Ash Vacuum Exhauster (ID No. ES-A5) with associated bagfilter (ID No. CD-31)
Dry Fly Ash Silo (ID No. ES-A6), and Dry Fly Ash Truck Loading (ID No. ES-A7) with associated bagfilter (CD-30)
Dry Fly Ash Discharge to Truck (ID No. ES-A12)
Lime Silo for SDA (ID No. ES-LSSDA) with associated bagfilter (ID No. CD32-3)
Facility haul roads (ID No. FVehicle)

1. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

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

EMISSION SOURCE	POLLUTANT	BACT*	CONTROL TECHNOLOGY
One railcar coal unloading station and two unloading hoppers (ID No. C-1)	PM_{10}	10 percent opacity [6-minute average]	Partially covered building and dust suppression (Water or chemical)
Two belt feeders (ID Nos. BF-1 and BF-2)	PM_{10}	10 percent opacity [6-minute average]	Underground
Three coal stockout conveyors (ID Nos. C-2, C-3, and C-4)	PM_{10}	10 percent opacity [6-minute average]	Partial enclosure and dust suppression (Water or chemical)
One circular stacker and boom conveyor (ID No. C-7)	PM_{10}	20 percent opacity [6-minute average]	Dust suppression (Water or chemical)
Coal storage pile fugitives (ID Nos. C-9 and C-10)	PM_{10}	None	Good pile management and dust suppression (Water or chemical)
Coal bulldozing (ID No. C-11)	PM_{10}	None	Dressing of working pile
One coal crusher house (ID No. C-15) and associated dust extraction system (ID No. CD-34)	PM_{10}	10 percent opacity [6-minute average]	Dust extraction system, partial enclosure for conveyor and enclosed building for crusher house
One railcar limestone unloading station (ID No. LS-1)	PM_{10}	20 percent opacity [6-minute average]	Partially covered building and dust suppression (Water or chemical)
Two limestone unloading hoppers (ID No. LS-1A and LS-1B)	PM_{10}	10 percent opacity [6-minute average]	Partially covered building and dust suppression (Water or chemical)
Two belt feeders (ID Nos. BF-3 and BF-4)	PM_{10}	10 percent opacity [6-minute average]	Underground
One limestone stockout conveyor (ID No. LS-6)	PM_{10}	10 percent opacity [6-minute average]	Partial enclosure and dust suppression (water or chemical)
One limestone storage pile (ID No. LS-8)	PM_{10}	None	Good pile management and dust suppression (Water or chemical)
Limestone bulldozing (ID No. LS-9)	PM_{10}	None	Dressing of working pile
Limestone reclaim hoppers (ID Nos. LS-10A and LS-10B)	PM_{10}	10 percent opacity [6-minute average]	Underground
Two limestone reclaim feeders (ID Nos. VF-40 and VF-41)	PM_{10}	10 percent opacity [6-minute average]	Underground
One limestone reclaim conveyor (ID No. ES-11)	PM_{10}	10 percent opacity [6-minute average]	Partial enclosure and dust suppression (water or chemical)
One limestone silo fill conveyor (ID No. LS-12) and two limestone silos (ID Nos. LS13-1, and LS13-2)	PM_{10}	0.01 grain/dscf (filterable only) for both PM and PM_{10} [3-hr average], and 7 percent opacity [6-minute average]	Baghouse, partially underground and partial enclosures for conveyors
Two limestone ball mills (ID Nos. LSBM-1 and LSBM-2)	PM_{10}	15 percent opacity [6-minute average]	Total enclosure

EMISSION SOURCE	POLLUTANT	BACT*	CONTROL TECHNOLOGY
Two gypsum stockout conveyors (ID Nos. GS-3 and GS-4)	PM_{10}	20 percent opacity [6-minute average]	None
Gypsum truck loading (ID No. GS-9)	PM_{10}	20 percent opacity [6-minute average]	None
One gypsum storage pile (ID No. GS-5)	PM_{10}	None	Good pile management and dust suppression (Water or chemical)
Landfill for ash and gypsum (ID No. Landfill)	PM_{10}	None	Good pile management and dust suppression (Water or chemical)
Emergency quench water pump (ID No. QP5)	PM_{10}	0.2 gram/kW-hr (filterable only) [3-hr average]	None
U6 Coal Reclaim Hoppers (ID No. ES-C19)	PM_{10}	10 percent opacity [6-minute average]	Underground
Coal Reclaim Feeders for Unit 6 (ID Nos. ES-VF1 thru ES-VF4)	PM_{10}	10 percent opacity [6-minute average]	Underground
Coal Reclaim Conveyor RC11 to U6 Boiler Building (ID No. ES-C27), Coal Reclaim Conveyor RC12 to U6 Boiler Building (ID No. ES-C28), Unit 6 Tripper Conveyor TR2 (ID No. ES-C29), and Unit 6 Tripper Conveyor TR3 (ID No. ES-C30) with associated bagfilter (ID No. CD-28)	PM_{10}	0.01 grain/dscf (filterable only) for both PM and PM_{10} [3-hr average], and 10 percent opacity [6-minute average]	Baghouse, partial enclosures and enclosed buildings
Dry Fly Ash Pickup at Bagfilter (ID No. ES-A9), Dry Fly Ash Pickup at Air Heater (ID No. ES-A8), Dry Fly Ash Silo (ID No. ES-A6), Dry Fly Ash Truck Loading (ID No. ES-A7), and Ash Vacuum Exhauster (ID No. ES-A5)	PM_{10}	0.01 grain/dscf (filterable only) for both PM and PM_{10} [3-hr average], and 20 percent opacity [6-minute average]	Baghouse
Dry Fly Ash discharge to truck (ID No. ES-A12)	PM_{10}	20 percent opacity [6-minute average]	Dust suppression (Water or chemical)
Lime Silo for SDA (ID No. ES-LSSDA)	PM_{10}	0.01 grain/dscf (filterable only) for both PM and PM_{10} [3-hr average], and 20 percent opacity [6-minute average]	Baghouse
Facility haul roads (ID No. FVehicle)	PM_{10}	None	Dust suppression (Water or chemical)

* BACT shall apply at all times. Excess emissions during startup, shutdown and malfunctions shall be evaluated pursuant to 15A NCAC 02D. 0535.

b. The following emission limits shall apply and shall not be exceeded in order to demonstrate compliance with the National Ambient Air Quality Standards as required by 15A NCAC 02D .0530 and 40 CFR 51.166(k):

EMISSION SOURCE	POLLUTANT	EMISSION LIMITS	
		Annual Tons/year[a]	Daily Pounds/24 hr
One railcar coal unloading station and two unloading hoppers (ID No. C-1)	PM_{10} (Filterable and condensable both)	0.40	8.48
Two coal stockout conveyors (ID Nos. C-3, and C-4)	PM_{10} (Filterable and condensable both)	0.80	16.96
One circular stacker and boom conveyor (ID No. C-7)	PM_{10} (Filterable and condensable both)	0.40	8.48
Coal storage pile fugitives (ID Nos. C-9 and C-10)	PM_{10} (Filterable and condensable both)	1.64	9.01
Coal bulldozing (ID No. C-11)	PM_{10} (Filterable and condensable both)	2.79	15.27
One coal crusher house (includes one coal stockout conveyor (ID No. ES-C2)) (ID No. C-15)	PM_{10} (Filterable and condensable both)	3.49	19.13
One railcar limestone unloading station (ID No. LS-1) and two unloading hoppers (ID Nos. LS-1A and LS-1B)	PM_{10} (Filterable and condensable both)	0.01	3.00
One limestone stockout conveyor (ID No. LS-6)	PM_{10} (Filterable and condensable both)	0.06	16.50
One limestone storage pile (ID No. LS-8)	PM_{10} (Filterable and condensable both)	0.16	0.87
Limestone bulldozing (ID No. LS-9)	PM_{10} (Filterable and condensable both)	0.84	4.60
One limestone silo (ID No. LS13-1	PM_{10} (Filterable and condensable both)	0.004	0.24
One limestone silo (ID No. LS13-2)	PM_{10} (Filterable and condensable both)	0.004	0.24
Two gypsum stockout conveyors (ID Nos. GS-3 and GS-4)	PM_{10} (Filterable and condensable both)	0.04	0.70
One gypsum storage pile (ID No. GS-5)	PM_{10} (Filterable and condensable both)	0.58	3.20
Gypsum truck loading (ID No. GS-9)	PM_{10} (Filterable and condensable both)	0.09	1.39
Landfill for ash and gypsum (ID No. Landfill)	PM_{10} (Filterable and condensable both)	5.31	29.01
Emergency quench water pump (ID No. QP5)	PM_{10} (Filterable and condensable both)	0.01	3.38
Coal Reclaim Conveyor RC11 to U6 Boiler Building (ID No. ES-C27), Coal Reclaim Conveyor RC12 to U6 Boiler Building (ID No. ES-C28), Unit 6 Tripper Conveyor TR2 (ID No. ES-C29), and Unit 6 Tripper Conveyor TR3 (ID No. ES-C30)	PM_{10} (Filterable and condensable both)	15.02	82.29
Dry Fly Ash Pickup at Bagfilter (ID No. ES-A9), Dry Fly Ash Pickup at Air Heater (ID No. ES-A8), and Ash Vacuum Exhauster (ID No. ES-A5)	PM_{10} (Filterable and condensable both)	0.01	0.07

Dry Fly Ash Silo (ID No. ES-A6) and Dry Fly Ash Truck Loading (ID No. ES-A7)	PM_{10} (Filterable and condensable both)	0.01	0.06
Dry Fly Ash discharge to truck (ID No. ES-A12)	PM_{10} (Filterable and condensable both)	0.05	0.57
Lime Silo for SDA (ID No. ES-LSSDA)	PM_{10} (Filterable and condensable both)	0.0002	0.24
Facility haul roads (ID No. FVehicle)	PM_{10} (Filterable and condensable both)	5.04	30.00

[a] Tons per rolling consecutive 12-month period.

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

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

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

d. The maximum throughput of rail car coal unloading (ID No. C-1) shall not exceed 5,000 tons/hr and 5,422,440 tons per consecutive 12-month period.
e. The maximum throughput of rail car limestone unloading (ID No. LS-1) shall not exceed 2,800 tons/hr and 796,651 tons per consecutive 12-month period.
f. The maximum throughput of gypsum stockout conveyor (ID No. GS-3) shall not exceed 300 tons/hr and 913,445 tons per consecutive 12-month period.
g. The Permittee shall keep records of throughput of rail car coal unloading (ID No. C-1), rail car limestone unloading (ID No. LS-1), and gypsum stockout conveyor (ID No. GS-3) on a daily basis, and then total for each month. If any consecutive 12 months' total throughput for rail car coal unloading (ID No. C-1), rail car limestone unloading (ID No. LS-1), or gypsum stockout conveyor (ID No. GS-3), exceed the respective limits in Section 2.2.A.1. d., e., and f., respectively, above, or if the records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

h. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
   i. The maximum throughput of rail car coal unloading (ID No. C-1), rail car limestone unloading (ID No. LS-1), and gypsum stockout conveyor (ID No. GS-3), for each of the 12-month periods in the previous 17 months. All instances of deviations from the requirements of this permit must be clearly identified.

B. One railcar limestone unloading station (ID No. LS-1) and two unloading hoppers (ID Nos. LS-1A and LS-1B)
Two belt feeders (ID Nos. BF-3 and BF-4)
One limestone stockout conveyor (ID No. LS-6)
Limestone storage pile (ID No. LS-8)
Limestone bulldozing and reclaim hoppers (ID Nos. LS-9, LS-10A and LS-10B)
Two reclaim feeders (ID Nos. VF-40 and VF-41)
One limestone reclaim conveyor (ID No. LS-11), one limestone silo fill conveyor (ID No. ES-12), two limestone silos (ID Nos. LS13-1 and LS13-2), and associated baghouses (ID Nos. CD32-1 and CD32-2)
Two limestone ball mills (ID Nos. LSBM-1 and LSBM-2)
Lime silo for SDA (ID No. ES-LSSDA) with associated bagfilter (ID No. CD32-3)

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

a. For the purpose of this Rule the following definitions shall apply:

i. "Fugitive non-process dust emission" means particulate matter that is not collected by a capture system and is generated from areas such as pit areas, process areas, haul roads, stockpiles, and plant roads.
ii. "Substantive complaints" means complaints that are verified with physical evidence acceptable to the DAQ.

b. The Permittee shall not cause or allow fugitive non-process dust emissions (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).

c. 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.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0540, if the requirements of this Section 2.2.B.1.c. are not complied with.

d. The Director may require that the Permittee develop and submit a fugitive non-process dust control plan if:
   i. Ambient air quality measurements or dispersion modeling acceptable to the DAQ show violation or a potential for a violation of an ambient air quality standard for particulates in 15A NCAC 02D .0400 "Ambient Air Quality Standards;" or
   ii. If the DAQ observes excessive fugitive non-process dust emissions from the facility beyond the property boundaries.

   The control plan shall be submitted to the Director no later than 90 days after notification. The facility shall be in compliance with the plan within 30 days after the Director approves the plan.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0540, if the requirements of this Section 2.2.B.1.d. are not complied with.

e. 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.

f. 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.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0540, if the requirements of this Section 2.2.B.1.f. are not complied with.

g. 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. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0540, if the requirements of this Section 2.2.B.1.g. are not complied with.

C. One coal/natural gas/No. 2 fuel oil-fired electric utility boiler (ID No. ES-5(U5Boiler)) equipped with low-NOX concentric firing and separated over-fire air/lowered firing low-NOX control equipment, and associated selective catalytic reduction system (ID No. CD-11b (U5SCR)) installed in series with flue gas conditioning systems consisting of an ammonia injection system (ID No. CD-12 (U5FG)) and sulfur trioxide injection system (ID No. CD-13 (U5FG)), portable hydrated lime dry sorbent injection system (ID No. CD-U5(DS1), two electrostatic precipitators (ID Nos. CD-5 (U5ESP) and CD-6 (U5ESP)), and wet flue gas

desulfurization system consisting of spray tower absorber (ID No. CD-33)

One coal/natural gas/No. 2 fuel oil-fired supercritical electric utility boiler (ID No. ES-6) equipped with low-NOX concentric firing and over-fire air low-NOX control, and with associated selective catalytic reduction system (ID No. CD-19), two spray dry absorbers (ID No. CD-20), two fabric filters (ID No. CD-21), and a wet flue gas desulfurization system (ID Nos. CD-22)

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

a. In order to avoid applicability of 15A NCAC 02D .0530(g), the Permittee shall comply with the following [15A NCAC 02D .0530]:
   i. Unit 5 (ID No. ES-5) shall not discharge into the atmosphere more than 2,465 tons per year of nitrogen oxides on a rolling consecutive 12-month period basis.
   ii. Unit 5 and 6 (ID Nos. ES-5 and ES-6) shall not discharge into the atmosphere more than 6,370 tons per year of nitrogen oxides on a rolling consecutive 12-month period basis.
   iii. Units 5 and 6 (ID Nos. ES-5 and ES-6) shall not discharge into the atmosphere more than 25,185 tons per year of sulfur dioxide on a rolling consecutive 12-month period basis.

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

b. The Permittee shall keep records of the monthly nitrogen oxides and sulfur dioxide emissions from each source (ID Nos. ES-5 and ES-6) in a logbook (written or in electronic format). The monthly nitrogen oxides and sulfur dioxide emissions shall be determined using CEMS data.
   i. Both NOx and SO_2 CEMS data used to meet the requirements of this Section 2.2.C.1.b. above shall include data substituted using the missing data procedures in Subpart D of 40 CFR Part 75 except that unbiased values may be used. The missing data procedure shall be used whenever the emission unit combusts any fuel.
   ii. Excess Emissions: For each CEMS required by Section 2.2.C.1.b. above, excess emissions shall be defined as any consecutive 12-month period that exceeds the annual limit in Section 2.2.C.1.a. above.
   iii. Monitor downtime*:* For each CEMS required by Sections 2.2.C.1.b. above, monitor downtime:
      (A) shall not exceed 5.0 percent of the operating time in a calendar quarter;
      (B) shall be calculated using the following equation:

$$\%MD = \left(\frac{\text{Total Monitor Downtime}}{\text{Total Source Operating Time}}\right) \times 100$$

Where:
"Total Monitor Downtime" is the number of hours in a calendar quarter where an emission source was operating but data from the associated CEMS are invalid or not available or filled with missing data procedure.
"Total Source Operating Time" is the number of hours in a calendar quarter where the emission source associated with the CEMS was operating.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the monthly records of nitrogen oxides and sulfur dioxide emissions are not kept for each source or if nitrogen oxides, or sulfur dioxide emissions for any consecutive 12-month period exceed the limits in Section 2.2 C.1.a. above, or if the requirements in Section 2.2.C.1.b.i. through iii. above are not complied with.

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

c. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of nitrogen oxides and sulfur dioxide emissions from each source (ID Nos. ES-5 and ES-6) and the total for both sources based on the calculations above (tons per rolling consecutive 12-month period) postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain:
   i. the monthly sulfur dioxide emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

ii. Records of excess emissions and monitor downtime for the associated CEMS in the format approved by DAQ Technical Services Section for Units 5 and 6 (ID Nos. ES-5 and ES-6). The Permittee shall report excess emissions for all periods of operation, including start-up, shutdown, and malfunction.
iii. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (40 CFR PART 63 SUBPART UUUUU)

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

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

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

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

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

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

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

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

The Permittee shall operate all CMS during startup, except during periods of bypass of the main stack as provided in §63.10010(a)(4). For startup of a unit, clean fuels must be used as defined in §63.10042 for ignition. Once the unit converts to firing coal, the Permittee shall engage all of the applicable control technologies except the SCR. The Permittee shall start the SCR system appropriately to comply with relevant standards applicable during normal operation. The Permittee shall comply with all applicable emissions limits at all times except for periods that meet the applicable definitions of startup and shutdown in Subpart UUUUU.

The Permittee shall keep records during startup periods.

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

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

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

e. During periods of shutdown of an EGU:

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

i. The Permittee shall operate all CMS during shutdown, except during periods of bypass of the main stack as provided in §63.10010(a)(4). The Permittee shall also collect appropriate data, and shall calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used. While firing coal during shutdown, the Permittee shall vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal being fed into the EGU and for as long as possible thereafter considering operational and safety concerns as provided for bypass of the main stack in §63.10010(a)(4). In any case, the permittee shall operate the controls when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than Subpart UUUUU and that require operation of the control devices. All periods of bypass of the main stack shall be reported as deviations as provided in §63.10010(a)(4)(ii).

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

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

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

<u>General Compliance Requirements</u> [15A NCAC 02Q .0508(f)]

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

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

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

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

j. The Permittee shall demonstrate compliance with the filterable particulate matter (PM) emission limit through an

initial performance test and shall monitor continuous performance through use of a PM continuous emissions monitoring system (PM CEMS). [§63.10000(c)(1)(iv)]

k. The Permittee may demonstrate initial and continuous compliance by installing and operating a sulfur dioxide (SO_2) CEMS installed and operated in accordance with 40 CFR Part 75 to demonstrate compliance with the applicable SO_2 emissions limit. [§63.10000(c)(1)(v)]

l. The Permittee shall demonstrate initial and continuous compliance through use of a Hg CEMS or a sorbent trap monitoring system in accordance with Appendix A to the Subpart. [§63.10000(c)(1)(vi)]

m. As part of demonstration of continuous compliance, the Permittee shall perform periodic tune-ups of the affected EGUs, according to §63.10021(e). [§63.10000(e)]

n. On or before the date an EGU is subject to Subpart UUUUU, the Permittee shall install, certify, operate, maintain, and quality-assure each monitoring system necessary for demonstrating compliance with the work practice standards for PM during startup periods and shutdown periods. The Permittee shall collect, record, report, and maintain data obtained from these monitoring systems during startup periods and shutdown periods. [§63.10000(l)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the general compliance requirements in Sections 2.2.C.2.f. through n. above are not met.

<u>Continuous Compliance Requirements</u> [15A NCAC 02Q .0508(f)]

o. The Permittee shall monitor and collect data according to §63.10020. [§63.10020(a)]

p. The Permittee shall operate the monitoring system and collect data at all required intervals at all times that the affected EGU is operating, except for periods of monitoring system malfunctions or out-of-control periods (see §63.8(c)(7)), and required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments. The Permittee is required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable. [§63.10020(b)]

q. Except for periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments, failure to collect required data is a deviation from the monitoring requirements. [§63.10020(d)]

r The Permittee shall demonstrate continuous compliance with each emissions limit, operating limit, and work practice standard in Tables 2 and 3 to Subpart UUUUU that applies to the affected EGU, according to the monitoring specified in Table 7 to Subpart UUUUU and paragraphs (b) through (g) of §63.10021(a). [§63.10021(a)]

s. Except as otherwise provided in §63.10020(c), if the Permittee uses a CEMS to measure SO_2, PM, HCl, HF, or Hg emissions, or uses a sorbent trap monitoring system to measure Hg emissions, the Permittee shall demonstrate continuous compliance by using all quality-assured hourly data recorded by the CEMS (or sorbent trap monitoring system) and the other required monitoring systems (e.g., flow rate, CO_2, O_2, or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on a continuous 30-boiler operating day (or, if alternate emissions averaging is used for Hg, 90-boiler operating day) rolling average basis, updated at the end of each new boiler operating day. The Permittee shall use Equation 8 to Subpart UUUUU to determine the 30- (or, if applicable, 90-) boiler operating day rolling average.

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

Where:

Her_i is the hourly emissions rate for hour i and n is the number of hourly emissions rate values collected over 30- (or, if applicable, 90-) boiler operating days.

[§63.10021(b)]

t. Conduct periodic performance tune-ups of the EGUs, as specified in paragraphs (e)(1) through (9) of §63.10021. For the first tune-up, the Permittee may perform the burner inspection any time prior to the tune-up or delay the first burner inspection until the next scheduled EGU outage provided the requirements of §63.10005 are met. Subsequently, the Permittee shall perform an inspection of the burner at least once every 36 calendar months unless the EGU employs neural network combustion optimization during normal operations in which case an inspection of the burner and combustion controls shall be performed at least once every 48 calendar months. If the EGU is offline when a deadline to perform the tune-up passes, the tune-up work practice requirements shall be performed within 30 days after the re-start of the affected unit. [§63.10021(e)]

u. The Permittee shall follow the startup or shutdown requirements as given in Table 3 to the Subpart for each coal-

fired EGU and comply with all applicable requirements in §63.10011(g). [§§63.10005(j), 63.10011(g) and §63.10021(h)]

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

w. The Permittee shall determine the fuel whose combustion produces the least uncontrolled emissions, taking safety considerations into account, *i.e.*, the cleanest fuel, either natural gas or distillate oil, that is available on site or accessible nearby for use during periods of startup or shutdown. The cleanest fuel, either natural gas or distillate oil, for use during periods of startup or shutdown determination may take safety considerations into account. [§§63.10011(f)(1) and (2)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the continuous compliance requirements in Sections 2.2.C.2.o. through w. above are not met.

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

x. For an affected unit that exhausts to the atmosphere through a single, dedicated stack, the Permittee shall either install the required CEMS and sorbent trap monitoring systems in the stack or at a location in the ductwork downstream of all emissions control devices, where the pollutant and diluents concentrations are representative of the emissions that exit to the atmosphere. [§63.10010(a)(1)]

y. If the Permittee uses an oxygen (O_2) or carbon dioxide (CO_2) CEMS to convert measured pollutant concentrations to the units of the applicable emissions limit, the O_2 or CO_2 concentrations shall be monitored at a location that represents emissions to the atmosphere, *i.e.*, at the outlet of the EGU, downstream of all emission control devices. The Permittee shall install, certify, maintain, and operate the CEMS according to 40 CFR Part 75. Use only quality-assured O_2 or CO_2 data in the emissions calculations; do not use Part 75 substitute data values. [§63.10010(b)]

z. If the Permittee is required to use a stack gas flow rate monitor, either for routine operation of a sorbent trap monitoring system or to convert pollutant concentrations to units of an electrical output-based emission standard in Table 2 to Subpart UUUUU, the Permittee shall install, certify, operate, and maintain the monitoring system and conduct on-going quality-assurance testing of the system according to 40 CFR Part 75. Use only unadjusted, quality-assured flow rate data in the emissions calculations. Do not apply bias adjustment factors to the flow rate data and do not use substitute flow rate data in the calculations. [§63.10010(c)]

aa. If the Permittee is required to make corrections for stack gas moisture content when converting pollutant concentrations to the units of an emission standard in Table 2 to Subpart UUUUU, the Permittee shall install, certify, operate, and maintain a moisture monitoring system in accordance with 40 CFR Part 75. Alternatively, for coal-fired units, the Permittee may use appropriate fuel-specific default moisture values from §75.11(b) to estimate the moisture content of the stack gas. If the Permittee installs and operates a moisture monitoring system, the Permittee shall not use substitute moisture data in the emissions calculations. [§63.10010(d)]

bb. The Permittee shall use an SO_2 CEMS and must install the monitor at the outlet of the EGU, downstream of all emission control devices, and must certify, operate, and maintain the CEMS according to 40 CFR Part 75 as specified in paragraphs (f)(1) through (4) of §63.10010. [§63.10010(f)]

cc. The Permittee shall use a Hg CEMS or a sorbent trap monitoring system, the Permittee shall install, certify, operate, maintain and quality-assure the data from the monitoring system in accordance with Appendix A to Subpart UUUUU and as specified in §63.10010(g). [§63.10010(g)]

dd. The Permittee shall install, certify, operate, and maintain a PM CEMS and record the output of the PM CEMS as specified in paragraphs (i)(1) through (5) of §63.10010 (shown below). The compliance limit shall be expressed as a 30-boiler operating day rolling average of the applicable numerical emissions limit value in Table 2 to Subpart UUUUU. [§63.10010(i)]

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

ii. Operate and maintain the PM CEMS according to the procedures and requirements in Procedure 2—Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources in Appendix F to 40 CFR Part 60.

(A) Conduct the relative response audit (RRA) for the PM CEMS at least once annually (once per 12 month

period).

(B) Conduct the relative correlation audit (RCA) for the PM CEMS at least once every 3 (calendar) years.

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

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

v. Collect data using the PM CEMS at all times the process unit is operating and at the intervals specified in §63.10010(a), except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.

(A) Use all the data collected during all boiler operating hours in assessing the compliance with the operating limit except:

(I) Any data collected during periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or quality control activities that temporarily interrupt the measurement of emissions (e.g., calibrations, certain audits). Report any monitoring system malfunctions or out of control periods in the annual deviation reports. Report any monitoring system quality assurance or quality control activities per the requirements of §63.10031(b);

(II) Any data collected during periods when the monitoring system is out of control as specified in the site-specific monitoring plan, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or quality control activities conducted during out-of-control periods. Report any such periods in the annual deviation report;

(III) Any data recorded during periods of startup or shutdown.

(B) Record and make available upon request results of PM CEMS system performance audits, dates and duration of periods when the PM CEMS is out of control to completion of the corrective actions necessary to return the PM CEMS to operation consistent with the site-specific monitoring plan.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the monitoring requirements in Sections 2.2.C.2.x. through dd. above are not met.

<u>Recordkeeping</u> [15A NCAC 02Q .0508(f)]

ee. The Permittee shall keep records of the following:

i. Records required under appendix A and/or appendix B to Subpart UUUUU for continuous monitoring of Hg emissions.

ii. Each notification and report that is submitted to comply with Subpart UUUUU, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted, according to the requirements in §63.10(b)(2)(xiv).

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

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

i. Records described in §63.10(b)(2)(vi) through (xi).

ii. Previous (i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

iii. Request for alternatives to relative accuracy test for CEMS as required in §63.8(f)(6)(i).

iv. Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period. [§63.10032(b)]

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

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

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

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

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

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

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

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the recordkeeping requirements in Sections 2.2.C.2.ee. through mm. above are not met.

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

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

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

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

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

rr. The Permittee shall submit each report in Table 8 to 40 CFR 63 Subpart UUUUU, as applicable. If the Permittee is required to (or elect to) continuously monitor Hg and/or HCl and/or HF emissions, the Permittee shall also submit the electronic reports required under appendix A and/or appendix B to the Subpart, at the specified frequency. [§63.10031(a)]

ss. The Permittee shall submit each report in Table 8 to 40 CFR 63 Subpart UUUUU, as applicable postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. [§63.10031(b)]

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

uu. Each affected source that has obtained a Title V operating permit pursuant to 40 CFR Part 70 or Part 71 shall report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 8 of Subpart UUUUU along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40

CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. Submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [§63.10031(e)]

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

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

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

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

b. The following emission limits shall not be exceeded [15A NCAC 02D .0530]:

EMISSION SOURCE	POLLUTANT	BACT	CONTROL DESCRIPTION
		Natural Gas Only or Natural Gas and Coal Co-firing	
Unit 5 (ID No. ES-5)	CO	0.08 lb/million Btu (6-hour average), all operations except start-ups and shut-downs	Good combustion control
Unit 6 (ID No. ES-6)	CO	0.12 lb/million Btu (6-hour average), all operations except start-ups and shut-downs	Good combustion control
Units 5 and 6 (ID Nos. ES-5 and ES-6)	CO	Work practice standards during start-ups and shutdowns – Section 2.2 C. 3.b.i. through iii.	Work practices
Unit 5 (ID No. ES-5)	VOC	0.0055 lb/million Btu (6-hour average), all operations except start-ups and shut-downs	Good combustion control
Unit 6 (ID No. ES-6)	VOC	Natural Gas Only 0.0055 lb/million Btu (6-hour average), all operations except start-ups and shut-downs Natural Gas and Coal Co-firing $E_{gc} = (E_g * Q_g + E_c * Q_c)/Q_t$ (6-hour average), all operations except start-ups and shut-downs Where: E_{gc} = BACT for natural gas and coal co-firing, lb/million Btu E_g = 0.0055 lb/million Btu E_c = 0.003 lb/million Btu Q_g = natural gas heat input in million Btu Q_c = coal heat input in million Btu $Q_t = Q_g + Q_c$	Good combustion control
Units 5 and 6 (ID Nos. ES-5 and ES-6)	VOC	Work practice standards during start-ups and shutdowns – Section 2.2 C. 3.b.i. through iii.	Work practices

i. For startup of a unit, the Permittee shall use clean fuels as defined in Section 2.2 C.3.b.iii. below for ignition.

When firing coal, the Permittee shall utilize all of the applicable control technologies except dry scrubber and SCR. The Permittee shall start dry scrubber and SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation.

ii. While firing coal during shutdown, the Permittee shall vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal being fed into the EGU and for as long as possible thereafter considering operational and safety concerns. If, in addition to the fuel used prior to initiation of shutdown, another fuel shall be used to support the shutdown process, that additional fuel shall be one or a combination of the clean fuels defined in Section 2.2 C.3.b.iii. below and shall be used to the maximum extent possible, taking into account considerations such as not compromising boiler or control device integrity.

iii. Clean fuel means natural gas, synthetic natural gas that meets the specification necessary for that gas to be transported on a Federal Energy Regulatory Commission (FERC) regulated pipeline, propane, distillate oil, synthesis gas that has been processed through a gas clean-up train such that it could be used in a system's combustion turbine, or ultra-low-sulfur diesel (ULSD) oil, including those fuels meeting the requirements of 40 CFR part 80, subpart I ("Subpart I-Motor Vehicle Diesel Fuel; Nonroad, Locomotive, and Marine Diesel Fuel; and ECA Marine Fuel").

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

c. Under the provisions of North Carolina General Statute 143-215.108, the Permittee shall demonstrate compliance with the BACT in Section 2.2.C.3.b. above for Units 5 and 6 (ID Nos. ES-5 and ES-6) when burning (i) natural gas only and (ii) natural gas and coal co-firing, by conducting annual performance tests, utilizing EPA reference methods, as in effect on the date of permit issuance, contained in 40 CFR 60, Appendix A, AND in accordance with a testing protocol (using testing protocol submittal form) approved by the Division of Air Quality, as follows:

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

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

i. Test results shall be the average of 3 valid test runs.

ii. Within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after the commencement of natural gas burning in Units 5 and 6 (ID Nos. ES-5 and ES-6), the Permittee shall conduct the initial performance test(s) and submit a written report of the test(s) to the Regional Supervisor, Division of Air Quality.

The Permittee shall conduct the subsequent annual performance tests (no more than 13 months after the previous test). The Permittee shall submit the emission test reports in accordance with the requirements in General Condition JJ.

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

If the results of any performance tests are above the BACT in Section 2.2.C.3.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

d. The Permittee shall perform periodic tune-ups on Units 5 and 6 (ID Nos. ES-5 and ES-6) in accordance with Section 2.2.C.2.t. above to ensure compliance with 15A NCAC 02D .0530. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the Permittee does not comply with the periodic tune-ups requirement in Section 2.2.C.2.t. above.

Reporting requirements in Section 2.2.C.2.nn. through ww. above, as applicable, shall be sufficient to ensure compliance with 15A NCAC 02D .0530.

Federal-Only Requirement

4. Cross-State Air Pollution Rule Requirements

a. For fossil-fuel fired boilers (ID Nos. ES-5 (U5Boiler) and ES-6), the Permittee shall comply with all applicable requirements in 40 CFR Part 97, Subpart AAAAA "TR NOx Annual Trading Program", Subpart BBBBB "TR NOx Ozone Season Trading Program", and Subpart CCCCC "TR SO_2 Group 1 Trading Program".

D. One flyash transfer and storage system (ID No. ES-8(FTS)) consisting of:

One flyash vacuum handling system (ID No. ES-8A) and associated vacuum filter (ID No. CD-15 (Fltr)),

and;

One flyash storage silo, truck load out and blow off system (ID No. ES-8B) and associated bagfilter (ID No. CD-14 (Fltr));

One flyash transfer and storage system (ID No. ES-9(FTS)) consisting of:

One flyash vacuum handling system (ID No. ES-9A) and associated bagfilter (ID No. CD-17(Fltr)), and;

One flyash storage silo (ID No. ES-9B) and associated bagfilter (ID No. CD-16(Fltr)); and;

Two flyash vaccum systems (ID Nos. ES-13A and ES-13B) and associated filter/separators (ID Nos. CD-13A and CD-13B)

One Unit 5 remote ash storage silo (ID No. ES-SiloU5) and associated bin vent filter (ID No. CD-SiloU5)

One railcar coal unloading station and two unloading hoppers (ID No. C-1)
Two belt feeders (ID Nos. BF-1 and BF-2)
Three coal stockout conveyors (ID Nos. C-2, C-3, and C-4)
One circular stacker and boom conveyor (ID No. C-7)
Coal storage pile fugitives (ID Nos. C-9 and C-10)
Coal bulldozing and reclaim hoppers (ID No. C-11)
One coal crusher house (ID No. C-15) and associated dust extraction system (ID No. CD-34)
Unit 5 coal blend reclaim hopper (ID No. C-21) (capped for future use, inoperable)

Unit 6 Coal Handling consisting of the following:

Unit 6 Coal Reclaim Hopper (ID No. ES-C19)

Unit 6 Coal Blend Reclaim Hopper (ID No. ES-C20)

Unit 6 Boiler House Coal Handling Point Source:
Coal Reclaim Conveyor RC11 to U6 Boiler Building (ID No. ES-C27), Coal Reclaim Conveyor RC12 to U6 Boiler Building (ID No. ES-C28), Unit 6 Tripper Conveyor TR2 (ID No. ES-C29), and Unit 6 Tripper Conveyor TR3 (ID No. ES-C30) with associated bagfilter (ID No. CD-28)

Unit 6 Coal Blend Reclaim Conveyor (ID No. ES-C31)

Coal Reclaim Feeders for Unit 6 (ID Nos. ES-VF1 thru ES-VF4)

Unit 6 Ash Handling consisting of the following:

Wet Bottom Ash Transfer and Pickup (ID No. ES-A1) and Dry Fly Ash Pickup at Boiler Economizer (Transfers to Wet Bottom Ash System) (ID No. ES-A3)

Ash Handling Point Sources Unit 6:
Dry Fly Ash Pickup at Bagfilter (ID No. ES-A9), Dry Fly Ash Pickup at Air Heater (ID No. ES-8), and Ash Vacuum Exhauster (ID No. ES-A5), with associated bagfilter (ID No. CD-31)

Dry Fly Ash Silo (ID No. ES-A6) and Dry Fly Ash Truck Loading (ID No. ES-A7) with associated bagfilter (CD-30)

Dry Fly Ash Discharge to Truck (ID No. ES-A12)

State-only Requirement

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

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

Emission Source	Toxic Air Pollutant	Emission Limit(s)
Coal Storage and Handling	Arsenic and inorganic arsenic compounds	0.1408 lb/yr
	Beryllium	0.0215 lb/yr
	Cadmium	0.00534 lb/yr
	Soluble Chromate Compounds as Chromium VI Equivalent	0.000082 lb/day
	Manganese and compounds	0.001035 lb/day
	Mercury Vapor	0.000005 lb/day
	Nickel Metal	0.000118 lb/day
Ash Storage and Handling	Arsenic and inorganic arsenic compounds	0.6627 lb/yr
	Beryllium	0.0976 lb/yr
	Cadmium	0.0122 lb/yr
	Soluble Chromate Compounds as Chromium VI Equivalent	0.000422 lb/day
	Manganese and compounds	0.002175 lb/day
	Mercury Vapor	0.000021 lb/day
	Nickel Metal	0.001037 lb/day

Monitoring/Recordkeeping/Reporting [15A NCAC 02D .0611]

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

E. One No. 2 fuel oil/propane-fired auxiliary boiler (ID No. ES-AuxBU5) One No. 2 fuel oil/propane-fired auxiliary boiler (ID No. ES-AuxBU6)

1. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (40 CFR Part 63, Subpart DDDDD)

Applicability [40 CFR 63.7485, §63.7490(d), §63.7499(o)]

a. For boilers (ID Nos. ES-AuxBU5 and ES-AuxBU6), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63, Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" and Subpart A "General Provisions."
   i. For boiler (ID No. ES-AuxBU5), the Permittee shall comply with the CAA §112(j) standard in Section 2.1 B.4. above through May 19, 2019. The Permittee shall be subject to the requirements of this standard starting May 20, 2019. Note that the requirements of this standard may require action on behalf of the Permittee prior to May 20, 2019.
   ii. For boiler (ID Nos. ES-AuxBU6), the Permittee shall be subject to the requirements of this standard no later than January 31, 2016.

Definitions and Nomenclature [§63.7575]

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

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

c. The operation of boilers (ID No. ES-AuxBU5 and ES-AuxBU6) shall each be limited to an annual capacity factor of no more than 10 percent.

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

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

Compliance Date [40 CFR 63. 7510(e), §63.56(b)]

e. The Permittee shall complete the initial tune up for boiler (ID No. ES-AuxBU5) and boiler (ES-AuxBU6) no later than May 20, 2019 and January 31, 2016, respectively.

Notifications [§63.7545(e), §63.7530(f)]

f. The Permittee shall submit a Notification of Compliance Status. The notification shall be signed by a responsible official and submitted by July 19, 2019 (ID No. ES-AuxBU5) and April 1, 2016 (ID No. ES-AuxBU6). The notification shall contain the following:
   i. a description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, and description of the fuel(s) burned.
   ii. the following certification(s) of compliance, as applicable:
      (A) "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR Part 63 Subpart DDDDD at the site according to the procedures in.40 CFR 63.7540(a)(10)(i) through (vi)" [i.e., Section 2.2 E.1.g.i through v. and l.ii]; and
      (B) "No secondary materials that are solid waste were combusted in any affected unit."

Work Practice Standards [§63.7500(c)]

g. The Permittee shall conduct a tune-up on each boiler (ID Nos. ES-AuxBU5 and ES-AuxBU6) every 5 years as specified below. The Permittee shall conduct the tune-up while burning the type of fuel (or fuels in case of units that routinely burn a mixture) that provided the majority of the heat input to the boiler or process heater over the 12 months prior to the tune-up.
   i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection

until the next scheduled or unscheduled unit shutdown, but shall inspect each burner at least once every 72 months.

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

iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. The Permittee may delay the inspection until the next scheduled unit shutdown. If applicable, the oxygen trim system shall have the oxygen level set to a level no lower than the oxygen concentration measured during the most recent tune-up;

iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject; and

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

[§63.7540(a)(10), (12)]

h. Each tune-up shall be conducted no more than 61 months after the previous tune-up. [§ 63.7515(d)]

i. If the unit is not operating on the required date for a tune-up, the tune-up shall be conducted within 30 calendar days of startup. [§63.7540(a)(13), §63.7515(g)]

j. At all times, you shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.7500(a)(3)]

k. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Section 2.2 E.1.c. through j. above are not met.

<u>Recordkeeping Requirements</u> [15A NCAC 02Q .0508(f)]

l. The Permittee shall keep the following:

i. A copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status, or 5-year compliance report that has been submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1)]

ii. maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (A) through (C) below:

(A) the concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the source;

(B) a description of any corrective actions taken as a part of the tune-up; and

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

[40 CFR 63.7540(a)(10)(vi)]

iii. the associated records for Section 2.2 E.1.g. through j. above.

m. The Permittee shall keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent and fuel use records for the days the boiler was operating. The Permittee shall maintain calculations on a monthly basis for annual capacity factor. [§63.7525(k), §63.7555(a)(3)]

n. The Permittee shall:

i. maintain records in a form suitable and readily available for expeditious review;

ii. keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and

iii. keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.

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

o. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if records are not maintained pursuant to Section 2.2 E.1.l. through n. above or the annual capacity factor calculations in Section 2.2 E.1.m. above demonstrate an exceedance of annual capacity factor of 10 percent.

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

p. The Permittee shall submit compliance reports to the DAQ on a 5-year basis. The first report for boiler (ID Nos. ES-AuxBU5) shall be postmarked on or before January 30, 2024, covering the compliance period from May 20, 2019 through December 31, 2023. The first report for boiler (ID Nos. ES-AuxBU6) shall be postmarked on or before January 30, 2021, covering the compliance period from January 31, 2016 through December 31, 2020. Subsequent reports shall cover the 5-year periods from January 1 to December 31. The Permittee shall submit the compliance reports postmarked on or before January 30 for the preceding 5-year period. [40 CFR 63.7550(a), (b)]

q. The compliance report shall also be submitted electronically via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). You shall use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (http://www.epa.gov/ttn/chief/cedri/index.html), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you shall submit the report to the Administrator at the appropriate address listed in §63.13. You shall begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [40 CFR 63.7550(h)(3)]

r. The compliance report shall contain the following information:
   i. company name and address;
   ii. process unit information, emissions limitations, and operating parameter limitations;
   iii. date of report and beginning and ending dates of the reporting period;
   iv. the total operating time during the reporting period.
   v. include the date of the most recent tune-up for each unit required according to Section 2.2 E.1.g. Include the date of the most recent burner inspection if it was not done on a 5-year basis and was delayed until the next scheduled or unscheduled unit shutdown.
   vi. statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

   [40 CFR 63.7550(a) (b), and (c), and Table 9]

F. One diesel fuel-fired emergency quench water pump (ID No. QW5)
One diesel fuel-fired emergency firewater pump (ID No. FWP5)
One No. 2 fuel oil/diesel-fired emergency generator (ID No. ES-EG6)
One No. 2 fuel oil/diesel-fired emergency firewater pump (ID No. ES-FWP)

1. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60, SUBPART IIII)

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

b. The following emission limits shall not be exceeded:

AFFECTED FACILITY (SOURCE)	AIR POLLUTANT EMISSION LIMIT, g/kW-hr (g/hp-hr)		
	NOx + VOCs (combined)	CO	PM
Emergency Quench Water Pump (ID No. QP5)	4.0 (3.0)	3.5 (2.6)	0.20 (0.15)
Emergency Firewater Pump (ID No. FWP5)	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
Emergency Generator (ID No. ES-EG6)	6.4 (4.8)	3.5 (2.6)	0.20 (0.15)
Emergency Firewater Pump (ID No. ES-FWP)			
Model years 2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
Model years 2009 and later	4.0 (3.0)	3.5 (2.6)	0.20 (0.15)

[§60.4205(b) and §60.4205(c)]

c. Beginning October 1, 2010, the Permittee shall use diesel fuel in the CI engine, meeting the following requirements, if the displacement of engine is less than 30 liters per cylinder, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

Sulfur content: Maximum 15 ppm
Cetane index: Minimum 40
or
Aromatic content: Maximum 35 volume percent

[§60.4207(b) and §80.510(b)]

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

d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.2.F.1.b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

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

e. The CI engine shall be equipped with a non-resettable hour meter prior to startup. If the CI engine is not equipped with non-resettable hour meters prior to startup, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524. [§60.4209(a)]

f. The Permittee shall operate and maintain CI engine that achieves the emission standards in §60.4205 over the entire life of the engine according to the manufacturer's emission-related written instructions or procedures developed by the Permittee that are approved by the engine manufacturer. The Permittee may only change engine settings that are permitted by the manufacturer. The Permittee shall also meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524, if the requirements of this Section 2.2.F.1.f. are not complied with. [§60.4206 and §60.4211(a)]

g. For pre-2007 model year emergency stationary CI internal combustion engine requiring to comply with the emission standards specified in §60.4205(a) or for a CI fire pump engine that is manufactured prior to the model years in Table 3 to this Subpart and must comply with the emission standards specified in §60.4205(c), the Permittee shall demonstrate compliance according to one of the methods in paragraphs (b)(1) through (b)(5) of §60.4211. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524, if the requirements of this Section 2.2.F.1.g. are not complied with. [§60.4211(b)]

h. For 2007 model year and later stationary CI internal combustion engine requiring to comply with the emission standards specified in §60.4205(b) or a CI fire pump engine that is manufactured during or after the model year that applies to the fire pump engine power rating in Table 3 to this Subpart and must comply with the emission standards specified in §60.4205(c), the Permittee shall comply by purchasing an engine certified to the emission standards in §60.4205(b) or (c), as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications except as permitted under 40 CFR 60.4211(g). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524, if the requirements of this Section 2.2.F.1.h. are not complied with. [§60.4211(c)]

i. The Permittee shall operate the stationary ICE according to the requirements in paragraphs (f)(1) through (3) of §60.4211. In order for the engine to be considered an emergency stationary ICE under this Subpart, any operation other than emergency operation, maintenance and testing, and operation in nonemergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of §60.4211, is prohibited. If the Permittee does not operate the engine according to the requirements in paragraphs (f)(1) through (3) of §60.4211, the engine will not be considered an emergency engine under this Subpart and shall meet all requirements for non-emergency engines.
   i. There is no time limit on the use of emergency stationary ICE in emergency situations.
   ii. The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of §60.4211 for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f)(3) of §60.4211 counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).
      (A) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of

additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

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

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

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

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

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

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

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

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524, if the requirements of this Section 2.2.F.1.i. above are not complied with.
[§60.4211(f]

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

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

ii. If Permittee's stationary CI internal combustion engine is greater than 500 HP, the Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer. The Permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524, if the requirements of this Section 2.2.F.1.j. are not complied with.
[§60.4211(g)]

<u>Recordkeeping</u> [15A NCAC 02Q .0508(f)]

k. Starting with the model years in Table 5 to NSPS Subpart IIII, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524, if these records are not maintained. [§60.4214(b)]

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

l. No initial notification under §60.7 is required for an emergency use CI engine. [§60.4214(b)]

m. If the Permittee operates the emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purposes specified in §60.4211(f)(3)(i), the Permittee shall submit an annual report according to the requirements in paragraphs (d)(1) through (3) of §60.4214. [§60.4214(d)]

n. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.2.F.1.e. through k. above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2.3 - Other Applicable Requirements

A. 15A NCAC 02Q .0508(h): PREVENTION OF ACCIDENTAL RELEASES - SECTION 112 (r) OF THE CLEAN AIR ACT

1. The Permittee is subject to Section 112(r) of the Clean Air Act and shall comply with all applicable requirements in accordance with 40 CFR Part 68 [15A NCAC 02Q .0508(h)]

2.4 - 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.

In addition to any other provision of this permit, the DAQ retains the authority to reopen and revise this permit under the following circumstances [15A NCAC 02Q .0517]:

a. To incorporate additional conditions related to carbon dioxide emissions if necessary to comply with state or federal statutes or rules addressing carbon dioxide emissions; or
b. To include additional requirements necessary to conform the permit to the terms of any settlement or final judgment in the federal enforcement action U.S. v. Duke Energy, Civil Action No. 1:00 CV 1262.

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

A. The following requirements are not applicable to boiler ID No. ES-5; nor auxiliary boiler ES-AuxBU5):

1. 15A NCAC 02D .2618, testing for mercury emissions, is not applicable because 15A NCAC 02D .0537, “Control of Mercury Emissions”, does not apply to fuel combustion.

2. 15A NCAC 02D .0607, calibration and maintenance requirements do not apply as these sources do not combust wood and wood-fossil fuels.

3. 15A NCAC 02D .1110, NESHAP promulgated in 40 CFR Part 61, is not applicable because no NESHAP evaluation has been triggered.

4. 15A NCAC 02D .0902(f), applicability of VOC rules to sources in non-attainment areas, is not applicable because there are no rules applicable to these sources in 02D .0900.

5. 15A NCAC 02D .0902(e), exemptions from VOC rules in 15A NCAC 02D .0900, is not applicable because there are no rules applicable to these sources in 02D .0900.

B. The following requirements are not applicable to boiler ID No. ES-5:

1. 15A NCAC 02D .0503(c), particulates from fuel burning indirect heat exchangers, is not applicable since the boilers are covered under 15A NCAC 02D .0536 for particulate emissions.

C. The following requirements are not applicable to auxiliary boiler ID No. ES-AuxBU5:

1. 15A NCAC 02D .2612, compliance testing for nitrogen oxides, is not applicable because there are no nitrogen oxide requirements applicable to these sources.

D. The following requirements are not applicable to auxiliary boiler ID No. ES-AuxBU5 nor auxiliary boiler ID No. ES-AuxBU6:

1. 15A NCAC 02D .2609(c), particulate testing for steam generators which utilize soot blowing shall determine the contribution of soot blowing, is not applicable to these sources because these source do not utilize soot blowing.

2. 15A NCAC 02D .0519, nitrogen oxide emission limits, is not applicable because the auxiliary boilers have a heat input rating of less than 250 million Btu per hour each.

3. 15A NCAC 02D .0535(d) and (e), malfunction abatement plan requirements and submittal, is not applicable because the plan is only required for electric utility boilers.

4. 15A NCAC 02D .0536, emission limits for particulate matter from utility boilers, is not applicable because these sources are not utility boilers.

5. 15A NCAC 02D .0606, monitoring of fossil-fired steam generators in accordance with Appendix P of 40 CFR Part 51, is not applicable because the auxiliary boilers have a heat input rating of less than 250 million Btu per hour each.

6. 15A NCAC 02D .0608, sulfur dioxide emissions from other coal or residual oil burners, is not applicable because these sources do not burn coal or residual oil.

7. 15A NCAC 02Q .0401, implementation of Phase II of the federal acid rain program pursuant to the requirements of Title IV of the Clean Air Act as provided in 40 CFR Part 72, is not applicable because these sources are not utility units.

E. The following requirement is not applicable to boiler ES-6:

1. Emissions of sulfur dioxide, nitrogen oxides and filterable particulate matter/PM-10 are exempt from Compliance Assurance Monitoring in accordance with 40 CFR 64.2(b)(vi) since the permit specifies a continuous compliance determination method for meeting the applicable emission limits.

2.5 - Phase II Acid Rain Permit Requirements

ORIS code: 2721

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 Environmental Quality, Division of Air Quality issues this permit pursuant to Title 15A North Carolina Administrative Codes, Subchapter 02Q .0400 and 02Q .0500, and other applicable Laws.

B. SO_2 Allowance Allocations and NO_x Requirements for each affected unit

ES-5 (U5Boiler) **Boiler ID No. 5**	SO_2 allowances, under Tables 2, 3, or 4 of 40 CFR part 73.	The number of allowances of sulfur dioxide is allocated to Phase II-affected units by U.S. EPA under Tables 2, 3, or 4 of 40 CFR Part 73 and may change. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA.
	NO_x limit	Pursuant to 40 CFR 76.11, the Division of Air Quality approves a NO_X emissions averaging plan for this unit. 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 0.25 lb/million Btu or has an annual heat input less than 13,315,200 million Btu, then excess emissions of nitrogen oxides occur during the year at this unit. A penalty for excess emissions will be assessed in accordance with 40 CFR 77.6. In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO_X compliance plan and requirements covering excess emissions.

ES-6 **Boiler ID No. 6**	SO_2 allowances	SO_2 allowances are not allocated by U.S. EPA for new units under 40 CFR Part 72.
	NO_x limit	The Division of Air Quality approves a standard NO_x compliance plan for this unit. Under the compliance plan, this unit's annual average NOx emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.7(a)(2) of 0.46 lb/million Btu for dry bottom wall-fired boilers. 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.

C. Comments, Notes and Justifications

None.

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

The permit applications submitted for this facility, as approved by the Department of Environmental Quality, 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 August 11, 2014
Phase II NOx Compliance Plan dated August 11, 2014
Acid Rain NOx Compliance Plan dated June 23, 2015
Acid Rain NOx Averaging Plan dated June 23, 2015

SECTION 3 - GENERAL CONDITIONS (version 5.5, 08/25/2020)

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

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

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

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

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

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

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]

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

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

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

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

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

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

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

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

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

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

Excess Emissions

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

Permit Deviations

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

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

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

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

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

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

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

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

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

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]

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

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]

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

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]

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

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and

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

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

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

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

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

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

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

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

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

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

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

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

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

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

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q .0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

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

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(3)]

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

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(d)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain

such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.

2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

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

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

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

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

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

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

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

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.

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

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

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

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

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. **Fugitive Dust Control Requirement** [15A NCAC 02D .0540]

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are

observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

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

NN. **Specific Permit Modifications** [15A NCAC 02Q .0501 and .0523]

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

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

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

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

ATTACHMENT 1 to Air Quality Permit 04044T44

List of Acronyms

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

ATTACHMENT 2 to Air Quality Permit 04044T44

Acid Rain Permit Application dated August 11, 2014
Phase II NOx Compliance Plan dated August 11, 2014
Acid Rain NOx Compliance Plan dated June 23, 2015
Acid Rain NOx Averaging Plan dated June 23, 2015

ATTACHMENT 3 to Air Quality Permit 04044T44

Greenhouse Gas Reduction Plan