



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

Michael F. Easley, Governor

William G. Ross, Jr., Secretary  
B. Keith Overcash, P.E., Director

May 30, 2007

Mr. Gary D. Taylor  
Regional Station Manager  
Duke Energy Carolinas LLC  
175 Steam Plant Road  
Mount Holly, NC 28120

SUBJECT: Air Quality Permit No. 03788T31  
Facility ID: 3600040  
Duke Energy Carolinas LLC  
Riverbend Steam Station  
Mount Holly, North Carolina  
Gaston County  
Fee Class: Title V

Dear Mr. Taylor:

In accordance with your completed Air Quality Permit Application for an administrative amendment received March 13, 2007, we are forwarding herewith Air Quality Permit No. 03788T31 to Duke Energy Carolinas LLC, Riverbend Steam Station, Mount Holly, Gaston 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 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3 of Part I. **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.

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

One  
North Carolina  
*Naturally*

Mr. Gary D. Taylor  
May 30, 2007  
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If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with **both** the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

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

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

This Air Quality Permit shall be effective from May 30, 2007 until October 31, 2008, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

The changes made to the permit are summarized in Attachment A. Should you have any questions concerning this matter, please contact Edward L. Martin, P.E., at (919) 715-6283.

Sincerely yours,

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

Enclosure

c: Gregg Worley, EPA Region 4  
Michael Landis, Mooresville Regional Office  
Central Files  
Bill Horton, Duke Energy Carolinas LLC, PO Box 1006, EC13K, Charlotte, NC 28201-1006

## ATTACHMENT A

The following changes were made to the Duke Energy Carolinas LLC Riverbend Steam Station Air Permit No. 03788T31:

Page(s):	Part, Section	Change
<b>Insignificant Activities List</b>		
--	--	Revised some ID Nos. and added the following to match ESM: I-58 850 gallon above ground fuel oil storage tank
<b>Part I</b>		
Cover	--	Amended to reflect current permit number, issue and effective date, and associated application information.
		Changed name from Duke Power Company LLC to Duke Energy Carolinas LLC.
3-4	Part I, Section 1, table of permitted emission sources	Moved all low-NO <sub>x</sub> control equipment (low NO <sub>x</sub> concentric firing system and separated overfire air (SOFA) low-NO <sub>x</sub> control equipment) for Units 4-7 from control device description column to equipment source description column.
5	Part I, Section 2.1 A, equipment listing	Removed all low-NO <sub>x</sub> control equipment (low NO <sub>x</sub> concentric firing system and separated overfire air (SOFA) low-NO <sub>x</sub> control equipment) ID Nos. for Units 4-7 from equipment description.
26-33	Part I, Section 3	General Conditions were updated to match permit shell as follows: 1. Changes to several referenced rule citations that have changed. 2. Changed condition IA.3.a.

**Attachment**  
**Air Quality Permit No. 03788T31**  
**List of Insignificant Activities under 15A NCAC 2Q .0503(8)**

<b>Emission Source I.D.</b>	<b>Emission Source Description</b>
I-1	Coal fugitives from coal pile, unloading operations, conveyors, feed systems, etc. ( <i>Note: These conveyors are different than those in Section 2.1 E of the permit</i> )
I-2	Ash fugitives from ash removal, ash loading, leaks in collection pipes and hopper system, emissions during maintenance, hauling of ash in trucks, truck loading operations, as sales operations, duct vacuum truck unloading, ash landfill, etc.
I-3	Non-stack emissions of hydrazine and ammonia from blowdown vents, overpressure vents, deareator vents, valve leakage, purge vents, etc.
I-4	Propane-fired generator for supplying backup power for microwave tower (13,646 Btu per hour)
I-5	Diesel fuel-fired portable welder
I-6	Gasoline, fuel oil, and kerosene pumps
I-7	Welding shops, vented to outside atmosphere
I-8	4,277,000 gallon aboveground No. 2 fuel oil storage tank and associated fuel oil unloading station, tank installed in 1969
I-9	27,000 gallon aboveground light-off No. 2 fuel oil storage tank and associated unloading station and pump, tank installed in 1990
I-10	1,000 gallon underground gasoline storage tank and associated unloading station
I-11	55 gallon kerosene storage drum
I-12	24,860 gallon aboveground mineral oil storage tank and associated unloading station, containing PCB contaminated oil, tank installed in 1982
I-15	2,000 gallon aboveground new-lubricating oil storage tank (planned)
I-16	Lubricating oil tank for Unit 2, 1,696 gallon capacity, normally empty
I-17	Lubricating oil tank for Unit 4, 4,181 gallon capacity
I-18	Lubricating oil tank for Unit 5, 4,181 gallon capacity
I-19	Lubricating oil tank for Unit 6, 5,370 gallon capacity
I-20	Lubricating oil tank for Unit 7, 5,370 gallon capacity
I-21	Lubricating oil tank for Unit 8C, 800 gallon capacity
I-22	Lubricating oil tank for Unit 9C, 800 gallon capacity
I-23	Lubricating oil tank for Unit 10C, 800 gallon capacity

I-24	Lubricating oil tank for Unit 11C, 800 gallon capacity
I-25	Lubricating oil storage tank for maintenance on Units 4 & 5, 4,181 gallon capacity, normally empty
I-26	Lubricating oil storage tank for maintenance on Units 6 & 7, 5,370 gallon capacity, normally empty
I-27	Lubricating oil storage tank for maintenance on Units 8C - 11C, 4,181 gallon capacity, normally empty
I-28	250 gallon used-oil trailer tank
I-29	Satellite accumulation areas for storage of used-oil in drums
I-30	Transformers containing oil, 86,448 gallon total capacity.
I-31	Circuit breakers, containing a total of 57,348 gallons of oil
I-32	Various equipment containing lubricating oil: 9 boiler feed pumps, 160 gallons total 5 boiler feed pump hydraulic couplings, 400 gallons total 8 hotwell pumps, 40 gallons total 16 pulverizer mills, 1,240 gal. total 8 fans, 1,200 gallons total 8 hydraulic coupling ID fans, 150 gallons total 8 preheater drives, 120 gallons total 8 air compressors, 130 gallons total Jet engine trap tank, 300 gallon Filter & heater on equip. with trap tanks, 400 gallon total capacity
I-33	Misc. oil trap tanks used for spill collection for oils in transformers and other yard drain locations
I-34	Sodium hydroxide (NaOH) storage tanks: 20,000 gallon tank for bulk storage 100 gallon day storage tank
I-35	750 gallon tank aboveground sulfuric acid (H <sub>2</sub> SO <sub>4</sub> ) storage tank
I-36	100 gallon aboveground sulfuric acid (H <sub>2</sub> SO <sub>4</sub> ) day storage tank
I-37	300 gallon hydrazine (N <sub>2</sub> H <sub>4</sub> ) storage/mixing tank
I-38	300 gallon ammonia hydroxide (NH <sub>3</sub> OH) storage/mixing tank
I-39	Misc. cylinders containing: SO <sub>2</sub> , NO <sub>x</sub> , NO <sub>2</sub> , CO, CO <sub>2</sub> , chlorine, hydrogen, nitrogen, acetylene, argon, oxygen, helium, HeF, or any combination of these
I-40	Misc. CFC and HCFC refrigerant cylinders
I-41	Misc. non-CFC and non-HCFC refrigerant cylinders
I-42	Propane storage tank for supplying fuel to microwave tower generator, and misc. propane

	tanks
I-43	Satellite accumulation areas for storage of waste paint and solvents
I-44	Satellite accumulation area for used antifreeze
I-45	Storage area for new antifreeze
I-46	Misc. containers of Oil-Dri and oil contaminated materials resulting from cleanup of oil spills
I-47	Chiller systems used for cooling of control equipment
I-48	Fire extinguishers located throughout the plant
I-49	Continuous Emissions Monitoring System (CEMS) equipment, which emit ozone, CO <sub>2</sub> , SO <sub>2</sub> , and other pollutants
I-50	Sewage treatment plant
I-51	Sewer system vents located throughout the plant
I-52	Vents from groundwater monitoring wells for areas contaminated with diesel fuel, gasoline, etc.
I-53	Laboratory for performing analyses of plant operating conditions
I-55	Application of paints, solvents, degreasers, etc.
I-56	Open burning for fire brigade training, and burning of brush, etc. Application of sodium carbonate and sodium bicarbonate ESP conditioning agents
I-57	Application of sodium carbonate and sodium bicarbonate ESP conditioning agents
I-58	850 gallon above ground fuel oil storage tank
I-59	1,200 gallons above ground diesel fuel oil storage tank

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

**Division of Air Quality**



## AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date *	Expiration Date *
03788T31	03788T30	May 30, 2007	October 31, 2008

\* Effective dates for the Phase II Acid Rain portion of this permit may differ from these dates

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, Subchapters 2D and 2Q, and other applicable Laws. This permit contains all the terms, conditions and limitations applicable to this facility and is fully enforceable.

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

**Permittee:** **Duke Energy Carolinas LLC**  
**Facility ID:** **3600040 (Riverbend Steam Station)**

**Facility Site Location:** **175 Steam Plant Road**  
**City, County, State, Zip:** **Mount Holly, Gaston County, NC, 28120**

**Mailing Address:** **526 S. Church St., PO Box 1006, Mail Code EC13K**  
**City, State, Zip:** **Charlotte, NC, 28201-1006**

**Application Number:** **3600040.07B**  
**Complete Application Date:** **March 13, 2007**  
**Primary SIC Code:** **4911**

**Division of Air Quality,**  **Mooresville Regional Office**  
**Regional Office Address:** **610 East Center Avenue**  
**Mooresville, NC, 28115**

Permit issued this the 30th day of May, 2007

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

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# PART I

The Division of Air Quality (DAQ), the United States Environmental Protection Agency (EPA), and citizens as defined under the federal Clean Air Act have the authority to enforce the terms, conditions, and limitations contained in Part I of this permit unless otherwise specified. However, state-enforceable-only requirements are enforceable only by DAQ, and neither EPA nor citizens have authority to enforce state-enforceable-only requirements.

Under Title 15A NCAC 2Q, the operation of emission source(s) and associated air pollution control device(s) listed in Part I of this permit is based on plans, specifications, operating parameters, and other information as submitted in the air permit application.

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

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

Emission Source I.D. No.	Emission Source Description	Control Device I.D. No.	Control Device Description
ES-1 (U4, Boiler 7)	one coal/No. 2 fuel oil/low-level PCB-contaminated mineral oil-fired electric utility boiler (1270 million Btu per hour heat input) equipped with a low-NO <sub>x</sub> concentric firing system* and separated overfire air (SOFA) low-NO <sub>x</sub> control equipment*  (Unit No. 4 - Boiler No. 7)	CD-1b(U4SNCR)  CD-2(U4esp)	one selective non-catalytic reduction (SNCR) NO <sub>x</sub> control system <sup>HH</sup>  one hot-side electrostatic precipitator (136,080 square feet of plate area)
ES-2 (U5, Boiler 8)	one coal/No. 2 fuel oil/low-level PCB-contaminated mineral oil-fired electric utility boiler (1270 million Btu per hour heat input) equipped with a low-NO <sub>x</sub> concentric firing system* and separated overfire air (SOFA) low-NO <sub>x</sub> control equipment* <sup>H</sup>  (Unit No. 5 - Boiler No. 8)	CD-3b(U5SNCR)  CD-4(U5esp)	one selective non-catalytic reduction (SNCR) NO <sub>x</sub> control system <sup>HH</sup>  one hot-side electrostatic precipitator (136,080 square feet of plate area)
ES-3 (U6, Boiler 9)	one coal/No. 2 fuel oil-fired electric utility boiler (1590 million Btu per hour heat input) equipped with a low-NO <sub>x</sub> concentric firing system* and separated overfire air (SOFA) low-NO <sub>x</sub> control equipment* <sup>H</sup>  (Unit No. 6 - Boiler No. 9)	CD-5b(U6SNCR)  CD-6(U6esp)	one selective non-catalytic reduction (SNCR) NO <sub>x</sub> control system**  one hot-side electrostatic precipitator (158,760 square feet of plate area)

Emission Source I.D. No.	Emission Source Description	Control Device I.D. No.	Control Device Description
ES-4 (U7, Boiler 10)	one coal/No. 2 fuel oil-fired electric utility boiler (1590 million Btu per hour heat input) equipped with a low-NO <sub>x</sub> concentric firing system* and separated overfire air (SOFA) low-NO <sub>x</sub> control equipment* <sup>H</sup>  (Unit No. 7 - Boiler No. 10)	CD-7b(U7SNCR)  CD-8(U7esp)	one selective non-catalytic reduction (SNCR) NO <sub>x</sub> control system**  one hot-side electrostatic precipitator (158,760 square feet of plate area)
ES-5(CT1) ES-6(CT2) ES-7(CT3) ES-8(CT4)	four No. 2 fuel oil/natural gas-fired simple-cycle internal combustion turbines (775 million Btu per hour heat input each)  (Units Nos. 8C, 9C, 10C, and 11C)	None	NA
ES-9(Aux)	one No. 2 fuel oil-fired auxiliary boiler (11.8 million Btu per hour heat input)	None	NA
CRA and CRB NSPS	two coal crushers (625 tons per hour maximum rated capacity each)	None	NA
CB1 and CB2 NSPS	two coal conveyors (1250 tons per hour maximum rated capacity each)	None	NA
ES-10(EmGen)	one No. 2 fuel oil-fired emergency/blackout protection diesel generator (1250 kW) <sup>+</sup>	None	NA

\* The low-NO<sub>x</sub> control systems 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 emission standards.

H These control devices are listed as a 502(b)(10) change per 15A NCAC 2Q .0523(a). The permit shield described in General Condition R does not apply.

+ These emission sources or control devices are listed as a minor modification pursuant to 15 A NCAC 2Q .0515. The permit shield described in General Condition R does not apply. Unless otherwise notified by NCDAQ, the terms and conditions of this permit (excluding General Condition R) shall become final on January 23, 2005. Until this date, the Permittee shall comply with the proposed permit terms and conditions herein pursuant to 15A NCAC 2Q .0515(f).

\*\* These control devices (ID Nos. CD-5b (U6SNCR) and CD-7b (U7SNCR)) are listed as a minor modification per 15 A NCAC 2Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected Part I terms of this permit (excluding the permit shield as described General Condition R) for these control devices shall become final on February 20, 2006. Until this date, the affected Part I permit terms herein reflect the proposed operating language that the Permittee shall operate these control devices pursuant to 15A NCAC 2Q .0515(f). Also, the control devices (ID Nos. CD-5b (U6SNCR) and CD-7b (U7SNCR)) may be operated independently of each other or in combination. Each control device may be operated intermittently as necessary, based on boiler system requirements, to maintain compliance with applicable emission standards.

HH These control devices (ID Nos. CD-1b (U4SNCR) and CD-3b (U5SNCR)) are listed as a minor modification per 15 A NCAC 2Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected Part I terms of this permit (excluding the permit shield as described General Condition R) for these control devices shall become final on September 12, 2006. Until this date, the affected Part I permit terms herein reflect the proposed operating language that the Permittee shall operate these control devices

pursuant to 15A NCAC 2Q .0515(f). Also, the control devices (ID Nos. CD-1b (U4SNCR) and CD-3b (U5SNCR)) may be operated independently of each other or in combination. Each control device may be operated intermittently as necessary, based on boiler system requirements, to maintain compliance with applicable emission standards.

## **SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS**

### **2.1- Emission Source(s) Specific Limitations and Conditions**

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

**A. one coal/No. 2 fuel oil/low-level PCB-contaminated mineral oil-fired electric utility boiler (ID No. ES-1(U4, Boiler 7)) with a low-NO<sub>x</sub> concentric firing system and separated overfire air (SOFA) low-NO<sub>x</sub> control equipment, and associated selective non-catalytic reduction (SNCR) NO<sub>x</sub> control system (ID No. CD-1b(U4SNCR))<sup>HH</sup> and electrostatic precipitator (ID No. CD-2(U4esp))**

**one coal/No. 2 fuel oil/low-level PCB-contaminated mineral oil-fired electric utility boiler (ID No. ES-2(U5, Boiler 8)) with a low-NO<sub>x</sub> concentric firing system and separated overfire air (SOFA) low-NO<sub>x</sub> control equipment<sup>H</sup>, and associated selective non-catalytic reduction (SNCR) NO<sub>x</sub> control system (ID No. CD-3b(U5SNCR))<sup>HH</sup> and electrostatic precipitator (ID No. CD-4(U5esp))**

**one coal/No. 2 fuel oil-fired electric utility boiler (ID No. ES-3(U6, Boiler 9)) with a low-NO<sub>x</sub> concentric firing system and separated overfire air (SOFA) low-NO<sub>x</sub> control equipment<sup>H</sup>, and associated selective non-catalytic reduction (SNCR) NO<sub>x</sub> control system (ID No. CD-5b(U6SNCR))<sup>\*\*</sup> and electrostatic precipitator (ID No. CD-6(U6esp))**

**one coal/No. 2 fuel oil-fired electric utility boiler (ID No. ES-4(U7, Boiler 10)) with low-NO<sub>x</sub> concentric firing system and separated overfire air (SOFA) low-NO<sub>x</sub> control equipment<sup>H</sup>, and associated selective non-catalytic reduction (SNCR) NO<sub>x</sub> control system (ID No. CD-7b(U7SNCR))<sup>\*\*</sup> and electrostatic precipitator (ID No. CD-8(U7esp))**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
	Phase II Acid Rain Permit Requirements (see Section 2.3)	15A NCAC 2Q .0402 (40 CFR Part 72)
nitrogen oxides	<b>when burning only coal</b> 1.8 pounds per million Btu heat input	15A NCAC 2D .0519
	<b>when burning only oil</b> 0.8 pounds per million Btu heat input	
	<b>when burning both coal and oil</b>  $E = [(E_c)(Q_c) + (E_o)(Q_o)]/Q_t$  where: E = emission limit for combined burning of coal and oil in pounds per million Btu heat input E <sub>c</sub> = 1.8 pounds per million Btu heat input for coal only E <sub>o</sub> = 0.8 pounds per million Btu heat input for oil Q <sub>c</sub> = coal heat input in Btu per hour Q <sub>o</sub> = oil heat input in Btu per hour Q <sub>t</sub> = Q <sub>c</sub> + Q <sub>o</sub>	
	Phase II Acid Rain Permit Requirements (see Section 2.3)	15A NCAC 2Q .0402 (40 CFR Part 72)
	as defined in specific conditions	15A NCAC 2D .1416
visible emissions	40 percent opacity when averaged over a six-minute period except that: (i) no more than four six-minute periods shall exceed the opacity standard in any one day; and (ii) the percent of excess emissions (defined as the percentage of monitored operating time in a calendar quarter above the opacity limit) shall not exceed 0.8 percent of the total operating hours. If a source operates less than 500 hours during a calendar quarter, the percent of excess emissions shall be calculated by including hours operated immediately previous to this quarter until 500 operational hours are obtained. Excess emissions during startup and shutdown shall be excluded from the determinations in paragraphs (i) and (ii) above, if the excess emissions are exempted according to the procedures set out in 2D .0535(g). Excess emissions during malfunctions shall be excluded from the determinations in paragraphs (i) and (ii) above, if the excess emissions are exempted according to the procedures set out in 2D .0535(c).	15A NCAC 2D .0521
	<b>State-only requirement</b> 12 percent annual average opacity	
particulate matter	0.12 pounds per million Btu heat input	15A NCAC 2D .0536
malfunction abatement plan	as defined in specific conditions	15A NCAC 2D .0535
good operations and maintenance practices	as defined in specific conditions	15A NCAC 2D .0606
ammonia	as defined in specific conditions - <b>State-only requirement</b>	15A NCAC 2D .1100

H These emission sources or control devices are listed as a 502(b)(10) change per 15A NCAC 2Q .0523(a). The permit

shield described in General Condition R does not apply.

\*\* These control devices (ID Nos. CD-5b (U6SNCR) and CD-7b (U7SNCR)) are listed as a minor modification per 15 A NCAC 2Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected Part I terms of this permit (excluding the permit shield as described General Condition R) for these control devices shall become final on February 20, 2006. Until this date, the affected Part I permit terms herein reflect the proposed operating language that the Permittee shall operate these control devices pursuant to 15A NCAC 2Q .0515(f). Also, the control devices (ID Nos. CD-5b (U6SNCR) and CD-7b (U7SNCR)) may be operated independently of each other or in combination. Each control device may be operated intermittently as necessary, based on boiler system requirements, to maintain compliance with applicable emission standards.

HH These control devices (ID Nos. CD-1b (U4SNCR) and CD-3b (U5SNCR)) are listed as a minor modification per 15 A NCAC 2Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected Part I terms of this permit (excluding the permit shield as described General Condition R) for these control devices shall become final on September 12, 2006. Until this date, the affected Part I permit terms herein reflect the proposed operating language that the Permittee shall operate these control devices pursuant to 15A NCAC 2Q .0515(f).

## 1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these sources shall not exceed **2.3 pounds per million Btu heat input**. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516 and 2D .0608]

### Testing [15A NCAC 2D .0501(c)(4)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

### Monitoring/Recordkeeping [15A NCAC 2Q .0508(f) and 2D .0608]

- c. The Permittee shall assure compliance with 15A NCAC 2D .0516 by determining sulfur dioxide emissions in pounds per million Btu using a continuous emissions monitoring (CEM) system meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75). Compliance with sulfur dioxide emission standards shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75) shall be summed, and 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 2.3 pounds per million Btu heat input or records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- d. 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.
- e. CEMs Monitor 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.

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

- a. Emissions of nitrogen oxides from these sources when burning coal and/or oil (No. 2 fuel oil or polychlorinated biphenyl (PCB)-contaminated mineral oil) shall be calculated by the following equation [15A NCAC 2D .0519]:

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

where: E = emission limit for combined burning of coal and oil in **pounds per million Btu heat input**

Ec = 1.8 pounds per million Btu heat input for coal only

Eo = 0.8 pounds per million Btu heat input for oil

Qc = coal heat input in Btu per hour

Qo = oil heat input in Btu per hour

Qt = Qc + Qo

### **Testing** [15A NCAC 2D .0501(c)(7) ]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(7) and 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 2D .0519.

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

The Permittee shall assure compliance with 15A NCAC 2D .0519 by determining nitrogen oxide emissions in pounds per million Btu using a continuous emissions monitoring (CEM) system meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75). Compliance with this emission standard shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75) shall be summed, and 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.

For monitoring purposes, the following emission limits will apply:

- i. When only coal is burned, the emission limit shall be **1.8 pounds per million Btu heat input**.
- ii. When only oil is burned, the emission limit shall be **0.8 pounds per million Btu heat input**.
- iii. When oil is burned other than for startup, the emission limit shall be **1.1 pounds per million Btu heat input**. At no time shall no more than 70 percent of the total heat input result from the combustion of fuel oil.

If any 24-hour block average exceeds the emission limit, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0519.

- d. The Permittee shall maintain records of monthly coal and oil consumption (written or electronic form) and shall submit such records within 30 days of a request by DAQ. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0519 if these records are not maintained.

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

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

- f. **CEMs Monitor Availability** - The Permittee shall submit the nitrogen oxide CEM systems monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, no later than January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June.

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

- a. Visible emissions from these sources shall not be more than **40 percent opacity** when averaged over a six-minute period. [15A NCAC 2D .0521(c)]
- b. For sources required to install, operate, and maintain continuous opacity monitoring systems (COMS), compliance with the 40 percent opacity limit shall be determined as follows:[15A NCAC 2D .0521(g)]
  - i. No more than four six-minute periods shall exceed the opacity standard in any one day; and
  - ii. The percent of excess emissions (defined as the percentage of monitored operating time in a calendar quarter above the opacity limit) shall not exceed 0.8 percent of the total operating hours. If a source operates less than 500 hours during a calendar quarter, the percent of excess emissions shall be calculated by including hours operated immediately previous to this quarter until 500 operational hours are obtained.

Excess emissions during startup and shutdown shall be excluded from the determinations in paragraphs b.i. and b.ii. above, if the excess emissions are exempted according to the procedures set out in 2D .0535(g). Excess emissions during malfunctions shall be excluded from the determinations in paragraphs b.i. and b.ii. above, if the excess emissions are exempted according to the procedures set out in 2D .0535(c). All periods of excess emissions shall be included in the determinations in paragraphs b.i. and b.ii. above until such time that the excess emissions are exempted according to the procedures in 2D .0535.

#### Testing [15A NCAC 2D .0501(c)(8)]

- c. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- d. Opacity shall be measured using an opacity monitoring system that meets the performance specifications of Appendix B of 40 CFR Part 60. The opacity monitoring system shall be subjected to a quality assurance program approved by the Director. The Permittee, for each unit subject to 2D .0521(g) shall have on file with the Director an approved quality assurance program, and shall submit to the Director within the time period of his request for his approval a revised quality assurance program, including at least procedures and frequencies for calibration, standards traceability, operational checks, maintenance, auditing, data validation, and a schedule for implementing the quality assurance program. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if the monitoring is not performed, if the monitored values exceed the limitations given above, or if the records are not maintained.

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

- d. The Permittee shall submit the COMS data in accordance with the reporting requirements given in Section 2.1 A. 6.c. All instances of excess emissions must be clearly identified.

### 4. 15A NCAC 2D .0536: PARTICULATE EMISSIONS FROM ELECTRIC UTILITY BOILERS

- a. Emissions of particulate matter from these sources shall not exceed **0.12 pounds per million Btu heat input**. [15A NCAC 2D .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 reinjected into the electric utility boilers (ID Nos. ES-1 through ES-4). If the collected flyash is reinjected into these boilers, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0536.
- d. Testing [15A NCAC 2D .0501(c)(3)]  
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.4.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0536.

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

- e. A stack test shall be conducted in accordance with Method 5 or Method 17 of Appendix A of 40 CFR Part 60 once per calendar year. In the event that a 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 0.12 pounds per million Btu heat input, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0536.

- f. In addition to the stack test required in Section 2.1 A.4.e. above, to assure compliance with the particulate standard, the Permittee shall use a continuous opacity monitor system (COMS) meeting the requirements of 15A NCAC 2D .0536(g). Excluding startups, shutdowns, and periods of off-line maintenance (ie. no fire in boiler), if any three-hour block average opacity value exceeds the following:

ES-1 (U4, Boiler 7) -	<b>32 percent</b>
ES-2 (U5, Boiler 8) -	<b>32 percent</b>
ES-3 (U6, Boiler 9) -	<b>35 percent</b>
ES-4 (U7, Boiler 10) -	<b>35 percent</b>

the Permittee shall initiate an inspection of the control equipment and/or the COMS and initiate the necessary repairs. A work order should be initiated for items which were identified but could not be corrected during the inspection. Repairs should be scheduled for completion as soon as practical. If 5 percent or greater of the three-hour block averaged COMS data (excluding startups, shutdowns and periods of off-line maintenance) recorded in a calendar quarter exceeds the opacity value, the Permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard. 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 a source operates less than 2200 hours during any quarter, the source may evaluate three-hour opacity values using operating data for the current quarter and the preceding quarters until 2200 hours of data are obtained. If the result of any stack test is greater than 0.12 pounds per million Btu heat input, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0536.

**Reporting** [15A NCAC 2D .0536 and 15A NCAC 2Q .0508(f)]

- g. 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.
- h. The Permittee shall submit the COMS data in accordance with the reporting requirements given in Section 2.1 A 6.c.
- i. All instances of deviations from the requirements of this permit must be clearly identified.

**STATE-ONLY REQUIREMENTS:**

- j. Visible emissions from the utility boiler units shall not exceed an annual average opacity (AAO) of **12 percent**. 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 2D .0536(b)]

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

- k. 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.

**5. 15A NCAC 2D .0535: EXCESS EMISSIONS REPORTING AND MALFUNCTIONS**

- a. All electric utility boiler units shall have a malfunction abatement plan approved by the Director as specified in 15A NCAC 2D .0535(d). [15A NCAC 2D .0535]

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

- b. The Permittee shall maintain logs to show that the operation and maintenance parts of the malfunction abatement plan are implemented. These logs (written or electronic form) shall be subject to inspection by DAQ personnel upon request during business hours. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0535 if these records are not maintained.

**6. 15A NCAC 2D .0606: SOURCES COVERED BY APPENDIX P OF 40 CFR PART 51 (CONTINUOUS OPACITY MONITORING AND EXCESS EMISSIONS)**

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

- a. The Permittee shall use a continuous opacity monitoring system (COMS) to monitor and record opacity. 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.
- b. 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.

Calculations for %EE and %MD

Percent Excess Opacity Emission (%EE) Calculation:

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

Percent Monitor Downtime (%MD) Calculation for COMS:

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

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

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

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

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

- c. The Permittee shall submit the excess emissions and monitor downtime reports as required under Appendix P of 40 CFR Part 51 no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. For periods of excess emissions, 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. All instances of deviations from the requirements of this permit must be clearly identified.

**7. 15A NCAC 2D .1416: EMISSION ALLOCATIONS FOR UTILITY COMPANIES**

- a. The total emissions from all the coal-fired boilers and combustion turbines that are not listed in 15A NCAC 2D .1417 at Duke Energy Corporation's Allen, Belews Creek, Buck, Cliffside, Dan River, Marshall, and Riverbend facilities shall not exceed: [15A NCAC 2D .1416(b)]
  - i. 17,816 tons per ozone season for 2004;
  - ii. 22,270 tons per ozone season for 2005; and
  - iii. 16,780 tons per ozone season for 2006 and each year thereafter until revised according to 15A NCAC 2D .1420.
- b. Furthermore, except as allowed under Section 2.1 A.7.c. below, individual sources at these facilities named in the table below shall not exceed during the ozone season the nitrogen oxide emission allocations in the table. [15A NCAC 2D .1416(b)]

SOURCE	NO <sub>x</sub> EMISSION ALLOCATIONS (TONS/SEASON) 2004	NO <sub>x</sub> EMISSION ALLOCATIONS (TONS/SEASON) 2005	NO <sub>x</sub> EMISSION ALLOCATIONS (TONS/SEASON) 2006 AND LATER
ES-1 (U4, Boiler 7)	216	270	204
ES-2 (U5, Boiler 8)	225	281	212
ES-3 (U6, Boiler 9)	285	356	268
ES-4 (U7, Boiler 10)	299	374	282

- c. Sources (ID Nos. ES-1, ES-2, ES-3 and ES-4) shall comply with the requirements of 15A NCAC 2D .1416 using the nitrogen oxide budget trading program set out in 15A NCAC 2D .1419. If a source operates during the ozone season, it shall have installed and begun operating by May 1, 2004, a continuous emissions monitoring system that complies with 40 CFR Part 96. [15A NCAC 2D .1416(d) and 15A NCAC 2D .1419 (b)(2)]
- d. **Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f), 15A NCAC 2D .1416(e), and 15A NCAC 2D .1404(d) and (h)]  
The Permittee shall assure compliance with 15A NCAC 2D .1416 by determining nitrogen oxide emissions in tons per ozone season using a continuous emissions monitoring (CEM) system that meets the requirements of 40 CFR Part 75 Subpart H, with such exceptions as allowed under 40 CFR Part 75, Subpart H or 40 CFR 96. The Permittee shall comply with the recordkeeping requirements of 40 CFR 96, Budget Trading Program for State Implementation Plans. All instances of deviations from the requirements of this permit must be clearly identified. If nitrogen oxide emissions for any ozone season exceed the allowances held in the Compliance Account as of November 30 of each year or the recordkeeping requirements are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1416.
- e. **Reporting** [15A NCAC 2Q .0508(f), and 15A NCAC 2D .1404(g) and (h)]  
The Permittee shall comply with the reporting requirements of 40 CFR 96, Budget Trading Program for State Implementation Plans. The Permittee shall report no later than July 30 of each year the tons of nitrogen oxides emitted during the previous May and June and shall report no later than October 30 the tons of nitrogen oxides emitted during the previous ozone season. One copy of this report shall be sent to the appropriate Regional Office and one copy shall be sent to the Stationary Source Compliance Supervisor at the address shown in General Condition D. All instances of deviations from the requirements of this permit must be clearly identified.

**STATE-ONLY REQUIREMENT:**

**8. 15A NCAC 2Q .0700: TOXIC AIR POLLUTANT PROCEDURES**

The Permittee is allowed to burn low-level polychlorinated biphenyl (PCB)-contaminated mineral oil in boiler Unit No. 4 (ID No. ES-1) and boiler Unit No. 5 (ID No. ES-2) as outlined in 40 CFR, Part 761.60(a), subject to the following conditions and stipulations:

- a. Total PCB content shall not exceed 500 parts per million.
- b. Total maximum boiler injection rate shall not exceed 10 percent (on a volume basis) of the total fuel feed rate.
- c. Mineral oil may be burned in only one unit at a time.
- d. Mineral oil shall not be burned during startup, shutdown, malfunctions or when operating at less than 75 percent net load.

**Monitoring**

- e. Stack gases shall be continuously monitored for carbon monoxide (CO) and oxygen (O<sub>2</sub>) as required by EPA regulations; if at any time the CO level exceeds 100 parts per million or the O<sub>2</sub> level falls below three percent (3 percent), the flow of mineral oil shall be stopped immediately.

**Recordkeeping**

- f. The PCB content, the ASTM analyses results, and the amount of mineral oil dielectric fluid burned in gallons per month must be maintained on file in accordance with EPA regulations and be open for review by DAQ personnel upon request.

**STATE-ONLY REQUIREMENT:**

**9. 15A NCAC 2D .1100: TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REPORTING REQUIREMENT**

Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limits shall not be exceeded:

<b>Emission Source</b>	<b>Pollutant</b>	<b>Emission Rate lbs/hr</b>
ES-1 (U4, Boiler 7)	Ammonia	1.748
ES-2 (U5, Boiler 8)	Ammonia	1.748
ES-3 (U6, Boiler 9)	Ammonia	2.214
ES-4 (U7, Boiler 10)	Ammonia	2.214

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

- a. No monitoring/recordkeeping/reporting is required to assure compliance with this requirement.

**B. four No. 2 fuel oil/natural gas-fired simple-cycle internal combustion turbines (ID Nos. ES-5(CT1), ES-6(CT2), ES-7(CT3) and ES-8(CT4))**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
visible emissions	40 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent opacity if (i) no six-minute period exceeds 90 percent opacity, (ii) no more than one six-minute period exceeds 40 percent opacity in any hour, and (iii) no more than four six-minute periods exceed 40 percent opacity in any 24-hour period.	15A NCAC 2D .0521
nitrogen oxides	as defined in specific conditions	15A NCAC 2D .1416* and 15A NCAC 2D .1417*

\* These regulations and the associated requirements are listed as a minor modification pursuant to 15 A NCAC 2Q .0515. The permit shield described in General Condition R does not apply. Unless otherwise notified by NCDAQ, the terms and conditions of this permit (excluding General Condition R) shall become final on June 16, 2004. Until this date, the Permittee shall comply with the proposed permit terms and conditions herein pursuant to 15A NCAC 2Q .0515(f).

**1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

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

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

- a. Visible emissions from these sources shall not be more than **40 percent opacity** (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 90 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. [15A NCAC 2D .0521(c)]

**Testing** [15A NCAC 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, the Permittee shall perform a Method 9 test for 1 hour using a preapproved protocol to be submitted in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ before the sources operate more than 1100 hours using No. 2 fuel oil. This monitoring protocol shall be repeated before each subsequent 1100 hours of operation using No. 2 fuel oil from the last test for each source. The hours of operation using natural gas do not count toward the 1100 hours requirement. No opacity monitoring is required while the source is burning natural gas. If the results of any Method 9 test is above the limit in Section 2.1 B.2.a above, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

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

- d. The Permittee shall keep records of the hours and associated dates, when these sources are in operation using No. 2 fuel oil, and the dates of performance of Method 9 tests. The Permittee shall be deemed in

noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

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

- e. The permittee shall submit the results of the Method 9 test as a part of the quarterly report described in Section 2.1 A.6.c. above. All instances of deviations from the requirements of this permit must be clearly identified.

**3. 15A NCAC 2D .1416: EMISSIONS ALLOCATIONS FOR UTILITY COMPANIES\* and  
15A NCAC 2D .1417: EMISSION ALLOCATIONS FOR LARGE COMBUSTION SOURCES\***

- a. The total emissions from all the coal-fired boilers and combustion turbines that are not listed in 15A NCAC 2D .1417 at Duke Energy Corporation=s Allen, Belews Creek, Buck, Cliffside, Dan River, Marshall, and Riverbend facilities shall not exceed: [15A NCAC 2D .1416(b)]
  - i. 17,816 tons per ozone season for 2004;
  - ii. 22,270 tons per ozone season for 2005; and
  - iii. 16,780 tons per ozone season for 2006 and each year thereafter until revised according to 15A NCAC 2D .1420.
- b. Sources (ID Nos. ES-5(CT1), ES-6(CT2), ES-7(CT3) and ES-8(CT4)) shall comply with the requirements of 15A NCAC 2D .1417 using the nitrogen oxide budget trading program set out in 15A NCAC 2D .1419. If a source operates during the ozone season, it shall have installed and begun operating by May 1, 2004, a continuous emissions monitoring system that complies with 40 CFR Part 96. [15A NCAC 2D .1417(d) and 15A NCAC 2D .1419 (b)(2)]

**Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f), 15A NCAC 2D .1417(e) and 15A NCAC 2D .1404(d) and (h)]

- c. The Permittee shall assure compliance with 15A NCAC 2D .1416 by determining nitrogen oxide emissions in tons per year using a continuous emissions monitoring (CEM) system that meets the requirements of 40 CFR Part 75 Subpart H, with such exceptions as allowed under 40 CFR Part 75, Subpart H or 40 CFR 96. The Permittee shall also comply with 40 CFR 96, Budget Trading Program for State Implementation Plans, for recordkeeping and reporting requirements. All instances of deviations from the requirements of this permit must be clearly identified. If the nitrogen oxides emissions for any ozone season exceed the applicable emission allocations indicated above or the recordkeeping requirements are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1416.
- d. **Reporting** [15A NCAC 2Q .0508(f), and 15A NCAC 2D .1404(g) and (h)]  
The Permittee shall comply with the reporting requirements of 40 CFR 96, Budget Trading Program for State Implementation Plans. The Permittee shall report no later than July 30 of each year the tons of nitrogen oxides emitted during the previous May and June and shall report no later than October 30 the tons of nitrogen oxides emitted during the previous ozone season. One copy of this report shall be sent to the appropriate Regional Office and one copy shall be sent to the Stationary Source Compliance Supervisor at the address shown in General Condition D. All instances of deviations from the requirements of this permit must be clearly identified.

\* These regulations and the associated requirements are permitted as a minor modification pursuant to 15 A NCAC 2Q .0515. The permit shield described in General Condition R does not apply. Unless otherwise notified by NCDAQ, the terms and conditions of this permit (excluding General Condition R) shall become final on June 16, 2004. Until this date, the Permittee shall comply with the proposed permit terms and conditions herein pursuant to 15A NCAC 2Q .0515(f).

### C. one No. 2 fuel oil-fired auxiliary boiler (ID No. ES-9(Aux))

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	0.115 pounds per million Btu heat input	15A NCAC 2D .0503
sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
visible emissions	40 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent opacity if (i) no six-minute period exceeds 90 percent opacity, (ii) no more than one six-minute period exceeds 40 percent opacity in any hour, and (iii) no more than four six-minute periods exceed 40 percent opacity in any 24-hour period.	15A NCAC 2D .0521

#### 1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of fuel oil or natural gas, that are discharged from this source into the atmosphere shall not exceed **0.115 pounds per million Btu heat input**. [15A NCAC 2D .0503 (a)]

**Testing** [15A NCAC 2D .0501(c)(3)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(3) and General Condition JJ. If the results of this test are above the limits given in Section 2.1 C.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

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

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

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

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

- a. Visible emissions from this source 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 2D .0521(c)]

**Testing** [15A NCAC 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, the Permittee shall perform a Method 9 test for 1 hour using a preapproved protocol to be submitted in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ before the sources operate more than 1100 hours using No. 2 fuel oil. This monitoring protocol shall be repeated before each subsequent 1100 hours of operation using No. 2 fuel oil from the last test for each source. If the results of any Method 9

test is above the limit in Section 2.1 C.3.a above, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

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

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

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

- e. The permittee shall submit the results of the Method 9 test as a part of the quarterly report described in Section 2.1 A.6.c. above. All instances of deviations from the requirements of this permit must be clearly identified.

**D. two coal crushers (ID Nos. CRA and CRB)**

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 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0524 (40 CFR Part 60 Subpart Y)

**1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$$E = 4.10 \times P^{0.67} \quad \text{Where } E = \text{allowable emission rate in pounds per hour}$$

$$P = \text{process weight in tons per hour}$$

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

**Testing** [15A NCAC 2D .0501(c)(3)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(3) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

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

**2. 15A NCAC 2D .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 2D .0524, "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60, Subpart Y, including Subpart A "General Provisions." [15A NCAC 2D .0524]
- b. On or after the date on which the performance test required to be conducted under 40 CFR 60.8 is completed, visible emissions shall not be **20 percent opacity** or greater.
- c. No monitoring/recordkeeping/reporting is required for emissions from this source.

**E. two coal conveyors (ID Nos. CB1 and CB2)**

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 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0524 (40 CFR Part 60 Subpart Y)

## 1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$$E = 4.10 \times P^{0.67} \quad \text{Where } E = \text{allowable emission rate in pounds per hour}$$

$$P = \text{process weight in tons per hour}$$

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

### Testing [15A NCAC 2D .0501(c)(3)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(3) and 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 2D .0515.

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

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

## 2. 15A NCAC 2D .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 2D .0524, "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60, Subpart Y, including Subpart A "General Provisions." [15A NCAC 2D .0524]
- b. On or after the date on which the performance test required to be conducted under 40 CFR 60.8 is completed, visible emissions shall not be **20 percent opacity** or greater.
- c. No monitoring/recordkeeping/reporting is required for emissions from this source.

**F. one emergency/blackout protection diesel generator (ID No. ES-10(EmGen<sup>+</sup>))**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
visible emissions	20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent opacity if (i) no six-minute period exceeds 87 percent opacity, (ii) no more than one six-minute period exceeds 20 percent opacity in any hour, and (iii) no more than four six-minute periods exceed 20 percent opacity in any 24-hour period.	15A NCAC 2D .0521
HAPs	Notification Requirements	15A NCAC 2D .1111 40 CFR 63 Subpart ZZZZ

<sup>+</sup> These emission sources or control devices are listed as a minor modification pursuant to 15 A NCAC 2Q .0515. The permit shield described in General Condition R does not apply. Unless otherwise notified by NCDAQ, the terms and conditions of this permit (excluding General Condition R) shall become final on January 23, 2005. Until this date, the Permittee shall comply with the proposed permit terms and conditions herein pursuant to 15A NCAC 2Q .0515(f).

**1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

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

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

- a. Visible emissions from this source shall not be more than **20 percent opacity** (except during startup, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2D .0501(c)(8)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, the Permittee shall perform a Method 9 test for 1 hour using a preapproved protocol to be submitted in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ before the sources operate more than 1100 hours using No. 2 fuel oil. This monitoring protocol shall be repeated before each subsequent 1100 hours of operation using No. 2 fuel oil from the last test for each source. If the results of any Method 9 test is above the limit in Section 2.1 F.2.a. above, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

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

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

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

- e. The permittee shall submit the results of the Method 9 test as a part of the quarterly report described in Section 2.1 A.6.c. above. All instances of deviations from the requirements of this permit must be clearly identified.

**3. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT – 40 CFR PART 63 SUBPART ZZZZ)**

a. **Notification and Recordkeeping** [15A NCAC 2Q .0508(f)]

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

## 2.2- Permit Shield for Nonapplicable Requirements

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

The Permittee is shielded from the following nonapplicable requirements as of the date of issuance of this permit based on information furnished with all previous applications. This shield does not apply to future modifications or changes in the method of operation. [15A NCAC 2Q .0512(a)(1)(B)]

**A. The following requirements are not applicable to boilers ID Nos. ES-1, ES-2, ES-3 and ES-4, combustion turbines ID Nos. ES-5, ES-6, ES-7 and ES-8; nor to the non-NSPS auxiliary boiler ID No. ES-9:**

1. 15A NCAC 2D .0501(c)(11), testing for mercury emissions, is not applicable because 15A NCAC 2D .0537, AControl of Mercury Emissions, does not apply to fuel combustion.
2. 15A NCAC 2D .0501(c)(14), testing for sources for which emissions are based on process rates, is not applicable because emissions for the boilers and turbines are not based on process rates.
3. 15A NCAC 2D .0521(d), visible emissions shall not exceed 20% opacity, is not applicable because the boilers and turbines were manufactured as of July 1, 1971.
4. 15A NCAC 2D .1110, NESHAP promulgated in 40 CFR Part 61, is not applicable because no NESHAP evaluation has been triggered.
5. 15A NCAC 2D .0607, calibration and maintenance requirements do not apply as these sources do not combust wood fuels.
6. 15A NCAC 2D .0902(c), applicability of VOC rules to sources in nonattainment areas, is not applicable because there are no rules applicable to boilers or combustion turbines in 2D .0900.
7. 15A NCAC 2D .0902(f)(1), exemptions from VOC rules in 15A NCAC 2D .0900, is not applicable because there are no rules applicable to boilers or combustion turbines in 2D .0900.

8. 15A NCAC 2D .0903(b), recordkeeping on VOC emissions and control equipment, is not applicable because there are no rules applicable to boilers or combustion turbines in 2D .0900.
9. 15A NCAC 2D .0903(d)(2), recordkeeping on VOC source compliance, is not applicable because there are no rules applicable to boilers or combustion turbines in 2D .0900.
10. 15A NCAC 2D .0903(e), recordkeeping on VOCs, is not applicable because there are no rules applicable to boilers or combustion turbines in 2D .0900.
11. 15A NCAC 2D .0912(c), testing on VOCs, is not applicable because there are no rules applicable to boilers or combustion turbines in 2D .0900.
12. 15A NCAC 2D .0912(d), reporting on VOCs and corrective actions, is not applicable because there are no rules applicable to boilers or combustion turbines in 2D .0900.
13. 15A NCAC 2D .0912(e), testing on VOCs, is not applicable because there are no rules applicable to boilers or combustion turbines in 2D .0900.
14. 15A NCAC 2D .0939(a), testing for VOCs for sources subject to 2D .0912, is not applicable because there are no rules applicable to boilers or combustion turbines in 2D .0900.
15. 15A NCAC 2D .0939(b), testing for VOCs for sources subject to 2D .0912, is not applicable because there are no rules applicable to boilers or combustion turbines in 2D .0900.
16. 15A NCAC 2Q .0508(p)(1), recordkeeping on alternative operating scenarios, is not applicable because there are not alternative operating scenarios.

**B. The following requirement is not applicable to boilers ID Nos. ES-1, ES-2, ES-3 and ES-4; and combustion turbines ID Nos. ES-5, ES-6, ES-7 and ES-8:**

1. 15A NCAC 2D .0503(a), particulates from fuel burning indirect heat exchangers, is not applicable to the boilers since these sources are covered under 15A NCAC 2D .0536 for particulate emissions, nor is it applicable to the combustion turbines since these sources are simple-cycle units without heat exchangers.

**C. The following requirements are not applicable to combustion turbines ID Nos. ES-5, ES-6, ES-7 and ES-8; nor to the non-NSPS auxiliary boiler ID No. ES-9:**

1. 15A NCAC 2D .0501(c)(7), compliance testing for nitrogen oxides, is not applicable because there are no nitrogen oxide requirements applicable to these sources.
2. 15A NCAC 2D .0501(c)(16), particulate testing for steam generators which utilize soot blowing shall determine the contribution of soot blowing, is not applicable because these sources do not utilize soot blowing.
3. 15A NCAC 2D .0519, nitrogen oxide emission limits, is not applicable because the turbines are simple-cycle units without heat exchangers and are therefore not boilers, the diesel generators are not boilers, and the auxiliary boiler has a heat input rating of less than 250 million Btu per hour.
4. 15A NCAC 2D .0535(d) and (e), malfunction abatement plan requirements and submittal, is not applicable because the plan is only required for electric utility boilers.
5. 15A NCAC 2D .0536, emission limits for particulate matter from utility boilers, is not applicable because these sources are not utility boilers.
6. 15A NCAC 2D .0606, monitoring of fossil-fired steam generators in accordance with Appendix P of 40 CFR Part 51, is not applicable because the turbines and diesel generators are not steam generators and the auxiliary boiler has a heat input of less than 250 million Btu per hour.

7. 15A NCAC 2D .0608, sulfur dioxide emissions from other coal or residual oil burners, is not applicable because these sources do not burn coal or residual oil.
8. 15A NCAC 2Q .0401, implementation of Phase II of the federal acid rain program pursuant to the requirements of Title IV of the Clean Air Act as provided in 40 CFR Part 72, is not applicable because these sources are not utility units.

**D. The following requirements are not applicable to the 4,277,000 gallon No. 2 fuel storage tank nor any other fuel oil or mineral oil storage tanks (insignificant activities):**

1. 15A NCAC 2D .0518(b), miscellaneous VOC emissions from tanks, is not applicable because the vapor pressure of the fuel oil and mineral oil is less than 1.5 pounds per square inch.
2. 15A NCAC 2D .0925(d), petroleum tank hardware requirements for VOCs, is not applicable because the vapor pressure of the fuel oil and mineral oil is less than 1.52 pounds per square inch.
3. 15A NCAC 2D .0949(a) and (b), storage of miscellaneous VOCs (non-petroleum), are not applicable because the vapor pressure of the fuel oil and mineral oil is less than 1.52 pounds per square inch.

**E. The following requirement is not applicable facility-wide:**

1. 15A NCAC 2Q .0508(g), option to only reference Accidental Release Risk Management Plan in the Title V application, is not applicable because the facility does not exceed the threshold limit for Section 112(r) applicability for accidental releases.

## 2.3- Phase II Acid Rain Permit Requirements

**ORIS code: 2732**

**Effective: January 1, 2003 through December 31, 2007**

### A. Statement of Basis

Statutory and Regulatory Authorities: In accordance with the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended and Titles IV and V of the Clean Air Act, the Department of Environment and Natural Resources, Division of Air Quality issues this permit pursuant to Title 15A North Carolina Administrative Codes, Subchapter 2Q .0400 and 2Q .0500, and other applicable Laws.

### B. SO<sub>2</sub> Allowance Allocations and NO<sub>x</sub> Requirements for each affected unit

		2003	2004	2005	2006	2007
<b>ES-1 Unit 4 Boiler ID No. 7</b>	SO <sub>2</sub> allowances, under Tables 2, 3, or 4 of 40 CFR part 73.	2152*	2152*	2152*	2152*	2152*
	NO <sub>x</sub> limit	<p>Pursuant to 40 CFR 76.8(d)(2), the Division of Air Quality approves a NO<sub>x</sub> early election compliance plan for boiler No. 7. The compliance plan is effective for calendar year 2000 through calendar year 2007. Under the compliance plan, this unit's annual average NO<sub>x</sub> emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a)(1) of <b>0.45 lb/mmBtu</b> for tangentially fired boilers. If the unit is in compliance with its applicable emission limitation above for each year of the plan, then the unit shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(1), of 0.40 lb/mmBtu until calendar year 2008.</p> <p>In addition to the described NO<sub>x</sub> compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO<sub>x</sub> compliance plan and requirements covering excess emissions.</p>				

		2003	2004	2005	2006	2007
<b>ES-2</b>  <b>Unit 5</b>  <b>Boiler ID No. 8</b>	SO <sub>2</sub> allowances, under Tables 2, 3, or 4 of 40 CFR part 73.	2113*	2113*	2113*	2113*	2113*
	NO <sub>x</sub> limit	<p>Pursuant to 40 CFR 76.8(d)(2), the Division of Air Quality approves a NO<sub>x</sub> early election compliance plan for boiler No. 8. The compliance plan is effective for calendar year 2000 through calendar year 2007. Under the compliance plan, this unit's annual average NO<sub>x</sub> emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a)(1) of <b>0.45 lb/mmBtu</b> for tangentially fired boilers. If the unit is in compliance with its applicable emission limitation above for each year of the plan, then the unit shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(1), of 0.40 lb/mmBtu until calendar year 2008.</p> <p>In addition to the described NO<sub>x</sub> compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO<sub>x</sub> compliance plan and requirements covering excess emissions.</p>				

		2003	2004	2005	2006	2007
<b>ES-3</b>  <b>Unit 6</b>  <b>Boiler ID No. 9</b>	SO <sub>2</sub> allowances, under Tables 2, 3, or 4 of 40 CFR part 73.	2267*	2267*	2267*	2267*	2267*
	NO <sub>x</sub> limit	<p>Pursuant to 40 CFR 76.8(d)(2), the Division of Air Quality approves a NO<sub>x</sub> early election compliance plan for boiler No. 9. The compliance plan is effective for calendar year 2000 through calendar year 2007. Under the compliance plan, this unit's annual average NO<sub>x</sub> emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a)(1) of <b>0.45 lb/mmBtu</b> for tangentially fired boilers. If the unit is in compliance with its applicable emission limitation above for each year of the plan, then the unit shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(1), of 0.40 lb/mmBtu until calendar year 2008.</p> <p>In addition to the described NO<sub>x</sub> compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO<sub>x</sub> compliance plan and requirements covering excess emissions.</p>				

		2003	2004	2005	2006	2007
<b>ES-4</b>  <b>Unit 7</b>  <b>Boiler</b> <b>ID No.</b> <b>10</b>	SO <sub>2</sub> allowances, under Tables 2, 3, or 4 of 40 CFR part 73.	2626*	2626*	2626*	2626*	2626*
	NO <sub>x</sub> limit	<p>Pursuant to 40 CFR 76.8(d)(2), the Division of Air Quality approves a NO<sub>x</sub> early election compliance plan for boiler No. 10. The compliance plan is effective for calendar year 2000 through calendar year 2007. Under the compliance plan, this unit's annual average NO<sub>x</sub> emission rate for each year, determined in accordance with 40 CFR part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a)(1) of <b>0.45 lb/mmBtu</b> for tangentially fired boilers. If the unit is in compliance with its applicable emission limitation above for each year of the plan, then the unit shall not be subject to the applicable emission limitation, under 40 CFR 76.7(a)(1), of 0.40 lb/mmBtu until calendar year 2008.</p> <p>In addition to the described NO<sub>x</sub> compliance plan, this unit shall comply with all other applicable requirements of 40 CFR part 76, including the duty to reapply for a NO<sub>x</sub> compliance plan and requirements covering excess emissions.</p>				

\* The number of allowances allocated to Phase II-affected units by U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO<sub>2</sub> allowance allocations identified in this permit (See 40 CFR 72.84).

**C. Comments, Notes and Justifications**

None.

**D. Phase II Permit Application and Phase II NO<sub>x</sub> Compliance Plan (attached)**

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

Acid Rain Permit Application dated May 15, 2002  
Phase II NO<sub>x</sub> Compliance Plan dated May 15, 2002

## SECTION 3 - GENERAL CONDITIONS

This section describes terms and conditions applicable to this Title V facility. All references to the Apermit≡ in this section apply only to Part I of the permit.

- A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
  2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
  3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
  4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
  5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
  6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.
- B. **Permit Availability** [15A NCAC 2Q .0507(k) and .0508(i)(9)(B)]  
The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environment and Natural Resources upon request.
- C. **Severability Clause** [15A NCAC 2Q .0508(i)(2)]  
In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.
- D. **Submissions** [15A NCAC 2Q .0507(e) and 2Q .0508(i)(16)]  
Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:
- Supervisor, Stationary Source Compliance  
North Carolina Division of Air Quality  
1641 Mail Service Center  
Raleigh, NC 27699-1641
- E. **Duty to Comply** [15A NCAC 2Q .0508(i)(2)]  
The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and 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 2Q .0514]  
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.
2. Transfer of Ownership or Operation [15A NCAC 2Q .0524]  
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q .0524.
3. Minor Permit Modifications [15A NCAC 2Q .0515]  
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.
4. Significant Permit Modifications [15A NCAC 2Q .0516]  
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.
5. Reopening for Cause [15A NCAC 2Q .0517]  
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

H. **Changes Not Requiring Permit Modifications**

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

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

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

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

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

Excess Emissions

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

Permit Deviations

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

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

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 2D .0535.

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

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

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

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

- c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
  - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
  5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

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

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

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

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

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

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

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

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

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

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

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

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street, Atlanta, GA 30303) postmarked on or before **March 1** a compliance certification (for the preceding calendar year ) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. 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:

- a. the identification of each term or condition of the permit that is the basis of the certification;
- b. the compliance status;
- c. whether compliance was continuous or intermittent; and
- d. the method(s) used for determining the compliance status of the source, currently and over the reporting period.

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

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

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

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
  - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
  - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance. It is specifically recognized that this exception to the permit shield applies to a judicial determination made as a result of litigation pending between Duke and EPA that major or minor new source construction permit requirements apply to the source. Nothing in the permit shield under any condition has made any specific finding of non-applicability of any PSD, NSPS, or SIP minor source review requirements for any modifications to which these requirements should have applied;
  - c. the applicable requirements under Title IV; or
  - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 2Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 2Q .0515.

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

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

- a. the information contained in the application or presented in support thereof is determined to be incorrect;
- b. the conditions under which the permit or permit renewal was granted have changed;
- c. violations of conditions contained in the permit have occurred;
- d. the EPA requests that the permit be revoked under 40 CFR §§ 70.7(g) or 70.8(d); or
- e. 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 2Q .0503]

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

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

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

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

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

compliance with the permit or applicable requirements at reasonable times.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

EE. **Prevention of Accidental Releases “General Duty” Clause - Section 112(r)(1) - FEDERALLY-ENFORCEABLE ONLY**

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

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

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

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

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

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

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

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

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

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

If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ in support of a permit application, the Permittee shall perform such testing in accordance with the appropriate EPA reference method(s) as approved by the DAQ and follow the procedures outlined below. The Permittee must request **in writing** and receive approval from the DAQ for an alternate test method or procedure.

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

- f. The DAQ will review emission test results with respect exclusively to the specified testing objectives as proposed by the Permittee and approved by the DAQ. The use of the test results beyond the stated objectives remains subject to the approval of the DAQ.

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

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

## PART II

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

Table 1: The following table contains a summary of all emission sources and associated air pollution control devices and appurtenances **associated with Air Quality Permit Application No. 3600040.05B received November 9, 2005:**

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
NA	NA	CD-5b(U6SNCR)	one selective non-catalytic reduction (SNCR) NOx control system**
NA	NA	CD-7b(U7SNCR)	one selective non-catalytic reduction (SNCR) NOx control system**

\*\* These control devices (ID Nos. CD-5b (U6SNCR) and CD-7b (U7SNCR)) are listed as a minor modification per 15 A NCAC 2Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected Part I terms of this permit (excluding the permit shield as described General Condition R) for these control devices shall become final on February 20, 2006. Until this date, the affected Part I permit terms herein reflect the proposed operating language that the Permittee shall operate these control devices pursuant to 15A NCAC 2Q .0515(f). Also, the control devices (ID Nos. CD-5b (U6SNCR) and CD-7b (U7SNCR)) may be operated independently of each other or in combination. Each control device may be operated intermittently as necessary, based on boiler system requirements, to maintain compliance with applicable emission standards.

Table 2: The following table contains a summary of all emission sources and associated air pollution control devices and appurtenances **associated with Air Quality Permit Application No. 3600040.06A received March 23, 2006:**

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
NA	NA	CD-1b(U4SNCR)	one selective non-catalytic reduction (SNCR) NOx control systemHH
NA	NA	CD-3b(U5SNCR)	one selective non-catalytic reduction (SNCR) NOx control systemHH

HH These control devices (ID Nos. CD-1b (U4SNCR) and CD-3b (U5SNCR)) are listed as a minor modification per 15 A NCAC 2Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected Part I terms of this permit (excluding the permit shield as described General Condition R) for these control devices shall become final on September 12, 2006. Until this date, the affected Part I permit terms herein reflect the proposed operating language that the Permittee shall operate these control devices pursuant to 15A NCAC 2Q .0515(f). Also, the control devices (ID Nos. CD-1b (U4SNCR) and CD-3b (U5SNCR)) may be operated independently of each other or in combination.

## SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

The air emission source(s) and associated air pollution control device(s) and appurtenances listed in Section 1 are subject to the following specific terms, conditions, and limitations, including the monitoring, recordkeeping, and reporting requirements as specified herein:

1. Any air emission sources or control devices listed in Section 1 must be constructed and maintained in accordance with the provisions contained herein and constructed and operated in accordance with provisions contained in Part I of this permit. The Permittee shall comply with applicable Environmental Management Commission Regulations, including Title 15A NCAC, Subchapter 2D .0516, .0519, .0521, .0535, .0536, .0606, .1100, .1111 (40 CFR 63 Subpart ZZZZ) and .1416, and Subchapter 2Q .0402.
2. **NOTIFICATION REQUIREMENT** - This permit may be revoked unless the emission source(s) and associated air pollution control device(s) listed in Section 1 are constructed in accordance with the approved plans, specifications, and other supporting data. Within 15 days after start up of the new or modified facilities, the Permittee shall provide written notice of the start up to the Regional Supervisor, DAQ.
3. **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 completed applications for the 502(b)(10) or minor change/modifications, received on May 20, 2003, April 7, 2003, September 23, 2004, November 9, 2005, and March 23, 2006, are true, accurate, and complete.

## SECTION 3: GENERAL CONDITIONS

This section describes terms and conditions applicable to the construction of the air emission source(s) and associated air pollution control device(s) listed in Section 1. Unless otherwise specified herein all references to the "permit" in this section apply only to Part II of the permit.

- A. **Operating Conditions**  
All conditions for the air emission source(s) and associated air pollution control device(s) listed in Section 1 are under Part I of this permit.
- B. **General Provisions**
  1. This permit is nontransferable by the Permittee. Future owners and operators must obtain a new Air Quality Permit from the DAQ.
  2. This issuance of this permit in no way absolves the Permittee of liability for any potential civil penalties which may be assessed for violations of state law which have occurred prior to the issuance date of this permit.
  3. A violation of any term or condition of Part II of this permit shall subject the Permittee to enforcement pursuant to NCGS 143-215.114A, 143-215.114B, and 143-215.114C, including assessment of civil and/or criminal penalties.
- C. **Submissions (reports, test data, monitoring data, notifications, and requests for renewal)**  
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.
- D. **Part II Renewal Request**  
The Permittee shall request renewal of the emission source(s) and associated air pollution control device(s) listed in Section 1 at the same time as specified in Part I, Section 3 - General Condition K of this permit.
- E. **Annual Fee Payment**  
The Permittee shall pay all fees in accordance with 15A NCAC 2Q .0200 and in conjunction with Part I, Section 3 - General Condition W of this Air Quality Permit.
- F. **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:

1. changes in the information submitted in the application;
2. changes that modify equipment or processes; or
3. 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.

**G. Termination, Modification, and Revocation of the Permit**

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; or
4. 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.

**H. Inspection and Entry**

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:

1. 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;
2. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
3. 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
4. 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.

**I. 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.

## ATTACHMENT

### List of Acronyms

<b>AOS</b>	Alternate Operating Scenario
<b>BACT</b>	Best Available Control Technology
<b>Btu</b>	British thermal unit
<b>CEM</b>	Continuous Emission Monitor
<b>CFR</b>	Code of Federal Regulations
<b>CAA</b>	Clean Air Act
<b>DAQ</b>	Division of Air Quality
<b>DENR</b>	Department of Environment and Natural Resources
<b>EMC</b>	Environmental Management Commission
<b>EPA</b>	Environmental Protection Agency
<b>FR</b>	Federal Register
<b>GACT</b>	Generally Available Control Technology
<b>HAP</b>	Hazardous Air Pollutant
<b>MACT</b>	Maximum Achievable Control Technology
<b>NCAC</b>	North Carolina Administrative Code
<b>NCGS</b>	North Carolina General Statutes
<b>NESHAPS</b>	National Emission Standards for Hazardous Air Pollutants
<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>NSPS</b>	New Source Performance Standard
<b>OAH</b>	Office of Administrative Hearings
<b>PM</b>	Particulate Matter
<b>PM<sub>10</sub></b>	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
<b>POS</b>	Primary Operating Scenario
<b>PSD</b>	Prevention of Significant Deterioration
<b>SIC</b>	Standard Industrial Classification
<b>SIP</b>	State Implementation Plan
<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>tpy</b>	Tons Per Year
<b>VOC</b>	Volatile Organic Compound