



North Carolina Department of Environment and Natural Resources

Division of Air Quality

Beverly Eaves Perdue
Governor

B. Keith Overcash, P.E.
Director

Dee Freeman
Secretary

February 12, 2010

Mr. Albert J. Smith, III
Vice President - Regulated CC/CT Operations
Duke Energy Carolinas, LLC
526 South Church Street
Mail Code EC11P
Charlotte, NC 28202

SUBJECT: Air Quality Permit No. 08731T10
Facility ID: 7900156
Duke Energy Carolinas, LLC
Rockingham County Combustion Turbine Facility
Reidsville, North Carolina
Rockingham County
Fee Class: Title V

Proposed

Dear Mr. Smith:

In accordance with your completed Air Quality Permit Application for the renewal of a Title IV permit, received March 1, 2007, and the administrative amendment of a Title V permit, received November 20, 2009, we are forwarding herewith Air Quality Permit No. 08731T10 to Duke Energy Carolinas, LLC – Rockingham County Combustion Turbine Facility, Reidsville, North Carolina, authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

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

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

Permitting Section
1641 Mail Service Center, Raleigh, North Carolina 27699-1641
2728 Capital Blvd., Raleigh, NC 27604
Phone: 919-715-6237 \ FAX: 919-733-5317 \ Internet: www.daq.state.nc.us

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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 No. 08731T10 shall be effective from February 12, 2010 to August 31, 2014, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact David F. Putney, P.E., by email at david.putney@ncdenr.gov or by telephone at (919) 733-2051.

Sincerely yours,

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

Enclosure

c: Gregg Worley, EPA Region 4
Margaret Love, Winston-Salem Regional Office
Bill Horton, Duke Energy Carolinas, LLC, 526 S. Church Street, EC13K, Charlotte, NC 28202
Central Files

**ATTACHMENT 1 to cover letter for Permit No. 08731T10
 Duke Energy Carolinas, LLC – Rockingham County CT facility**

Insignificant Activities under 15A NCAC 2Q .0503(8)

Emission Source ID No.	Emission Source Description
IS-1	Emergency generator diesel fuel storage tank (343 gallon capacity)
IS-2	Emergency fire pump diesel fuel storage tank (187 gallon capacity)
IS-3	Paved roads and parking lot
IS-4	Propane-fired microwave communication tower backup emergency generator (5 kW maximum rated power output)
IS-5	Gasoline-fired pressure washer (11 horsepower maximum rated power output)
IS-6	Cold degreaser/parts washer utilizing non-halogenated solvents
IS-7	Kerosene-fired space heater (115,000 Btu per hour maximum heat input rate)
IS-8	Kerosene-fired space heater (115,000 Btu per hour maximum heat input rate)
IS-9	Kerosene-fired space heater (110,000 Btu per hour maximum heat input rate)
IS-10	Kerosene-fired space heater (110,000 Btu per hour maximum heat input rate)

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 2D .1100 “Control of Toxic Air Pollutants” or 2Q .0711 “Emission Rates Requiring a Permit”.

**ATTACHMENT 2 to cover letter for Permit No. 08731T10
 Duke Energy Carolinas, LLC – Rockingham County CT facility**

The following table describes the modifications in Permit No. 08731T10 as part of the modification process.

Old Page(s)	New Page(s)	Condition/Item	Description of Change(s)
Global	Global	N/A	Change the issuance/effective dates of the permit and the permit revision number to T10
2	2	Table of Contents	Update to reflect latest submittal of the Title IV renewal application dated 02/20/07
4	4	2.1 A	Correct description to show natural gas and No. 2 fuel oil firing rates and modify limits/standards summary table to remove the reference to 2D .1417
8	NA	2.1 A.4 (08731T09)	Delete this section since 2D .1417 has been repealed and the SIP that includes CAIR has been approved
14	14	2.3	Update section to reflect Title IV renewal application
15 - 16	15 - 16	2.4	Remove “State-Enforceable Only” from section (CAIR is now federally-enforceable and state-enforceable)
17 - 24	17 - 25	Section 3	Update to current shell (i.e. version 3.0)

Note: Condition/Item numbers are those as they appear on Permit No. 08731T10, unless otherwise noted.

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
08731T10	08731T09	February 12, 2010	August 31, 2014

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

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

Permittee: **Duke Energy Carolinas, LLC**
Rockingham County Combustion Turbine Facility

Facility ID: 7900156
Facility Site Location: 240 Ernest Drive
City, County, State, Zip: Reidsville, Rockingham County, NC 27230

Mailing Address: 240 Ernest Drive
City, State, Zip: Reidsville, Rockingham County, NC 27230

Application Numbers: 7900156.09C 7900156.09D
Complete Application Dates: March 1, 2007 November 20, 2009

Primary SIC Code: 4911
Division of Air Quality, Winston-Salem Regional Office
Regional Office Address: 585 Waughtown Street
Winston-Salem, NC 27889

Permit issued this the 12th day of February, 2010

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

Table of Contents

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

SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

2.1 - Emission Source(s) Specific Limitations and Conditions
(Including specific requirements, testing, monitoring, recordkeeping, and
reporting requirements)

2.2 - Multiple Emission Source(s) Specific Limitations and Conditions
(Including specific requirements, testing, monitoring, recordkeeping, and
reporting requirements)

2.3 - Phase II Acid Rain Permit Requirements

2.4 - Clean Air Interstate Rules (CAIR) Permit Requirements

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENTS

ATTACHMENT 1.....List of Acronyms

ATTACHMENT 2.....Acid Rain Permit Application dated February 20, 2007

ATTACHMENT 3.....Clean Air Interstate Rules Application dated June 25, 2007

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 ID No.	Emission Source Description	Control Device ID No.	Control Device Description
PSD NSPS GG ES-CT-1	Natural gas/No. 2 fuel oil-fired simple-cycle internal combustion turbine (1,875 million Btu per hour maximum heat input rate while firing natural gas, 1,839 million Btu per hour maximum heat input rate while firing No. 2 fuel oil) equipped with dual-fuel dry low-NO _x combustors and water injection for NO _x control	N/A	N/A
PSD NSPS GG ES-CT-2	Natural gas/No. 2 fuel oil-fired simple-cycle internal combustion turbine (1,875 million Btu per hour maximum heat input rate while firing natural gas, 1,839 million Btu per hour maximum heat input rate while firing No. 2 fuel oil) equipped with dual-fuel dry low-NO _x combustors and water injection for NO _x control	N/A	N/A
PSD NSPS GG ES-CT-3	Natural gas/No. 2 fuel oil-fired simple-cycle internal combustion turbine (1,875 million Btu per hour maximum heat input rate while firing natural gas, 1,839 million Btu per hour maximum heat input rate while firing No. 2 fuel oil) equipped with dual-fuel dry low-NO _x combustors and water injection for NO _x control	N/A	N/A
PSD NSPS GG ES-CT-4	Natural gas/No. 2 fuel oil-fired simple-cycle internal combustion turbine (1,875 million Btu per hour maximum heat input rate while firing natural gas, 1,839 million Btu per hour maximum heat input rate while firing No. 2 fuel oil) equipped with dual-fuel dry low-NO _x combustors and water injection for NO _x control	N/A	N/A
PSD NSPS GG ES-CT-5	Natural gas/No. 2 fuel oil-fired simple-cycle internal combustion turbine (1,875 million Btu per hour maximum heat input rate while firing natural gas, 1,839 million Btu per hour maximum heat input rate while firing No. 2 fuel oil) equipped with dual-fuel dry low-NO _x combustors and water injection for NO _x control	N/A	N/A
PSD ES-FT-1	No. 2 fuel oil fixed-roof storage tank (1,700,000 gallon capacity) with atmospheric vents	N/A	N/A
PSD ES-FT-2	No. 2 fuel oil fixed-roof storage tank (1,700,000 gallon capacity) with atmospheric vents	N/A	N/A
PSD MACT ZZZZ ES-EG-1	One No. 2 fuel oil-fired stand-by emergency generator (300 kW maximum rated power output)	N/A	N/A
PSD MACT ZZZZ ES-FP-1	One No. 2 fuel oil-fired emergency fire water pump (133 hp maximum rated power output)	N/A	N/A

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1 - Emission Source(s) and Control Device(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. Five natural gas/No. 2 fuel oil-fired simple-cycle internal combustion turbines (1,875 million Btu per hour maximum heat input rate while firing natural gas, 1,839 million Btu per hour maximum heat input rate while firing No. 2 fuel oil, each; ID Nos. ES-CT-1 through ES-CT-5) each equipped with dual-fuel dry low-NO_x combustors and water injection for NO_x control

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Sulfur dioxide (SO ₂) and Nitrogen oxides (NO _x)	New Source Performance Standards (As defined in Section 2.1 A.2)	15A NCAC 2D .0524 [40 CFR Part 60, Subpart GG]
Various	Best Available Control Technology (As defined in Section 2.1 A.3)	15A NCAC 2D .0530
Odorous emissions	State-Enforceable Only See Section 2.2 A	15A NCAC 2D .1806
NO _x and SO ₂	State-Enforceable Only Clean Air Interstate Rules - See Section 2.4	15A NCAC 2D .2400

1. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent opacity not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. 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 .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 .2601 and General Condition JJ found in Section 3 before the source operates more than 1100 hours using No. 2 fuel oil. This monitoring protocol shall be repeated before each subsequent 1100 hours of operation from the last test. No opacity monitoring is required while the source is burning natural gas.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if this monitoring is not conducted.

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

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

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

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

- e. The Permittee shall submit the results of the Method 9 test within 30 days of completion of the test or at the end of the calendar year quarter in which the Method 9 test is conducted, whichever occurs later. All instances of deviations from the requirements of this permit must be clearly identified.

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

- 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 GG "Standards of Performance for Stationary Gas Turbines", including Subpart A "General Provisions." [15A NCAC 2D .0524]
- b. NSPS Emissions Limitations [15A NCAC 2D .0524, §60.332 and §60.333]
As required by 15A NCAC 2D .0524, the following permit limits shall not be exceeded:

Affected Facility	Pollutant	Emission Limit
Combustion turbines (ID Nos. ES-CT-1 through ES-CT-5)	Nitrogen oxides	STD = 0.0075 x [(14.4)/Y] + F
	Sulfur dioxide	0.015 percent by volume* or 0.8 percent sulfur in fuel, by weight

STD = Allowable nitrogen oxides emissions in percent by volume at 15 percent O₂ on a dry basis.

Y = Manufacturer's rated heat rate at manufacturer's rated load or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. Y shall not exceed 14.43 kJ/w-h.

F = NO_x emission allowance for fuel bound nitrogen as defined in 40 CFR §60.332(a)(3).

* Allowable sulfur dioxide emissions at 15 percent O₂ on a dry basis.

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

- c. As an alternate to the fuel sulfur content monitoring as specified in 40 CFR §§60.334(h) and (i) to demonstrate compliance with the sulfur dioxide standard in 40 CFR §60.333, the DAQ has approved a custom fuel monitoring schedule per DAQ letter dated August 17, 2000. The core of that approved custom fuel monitoring schedule is provided below for convenience:
 - i. While burning natural gas in the combustion turbines the Permittee shall:
 - (A) Sample the natural gas supply to the combustion turbines twice per month for six months. If all of these analyses indicate compliance with §60.333 with low variability, then
 - (B) Sample the natural gas supply to the combustion turbines once per quarter for six quarters. If all of these analyses indicate compliance with §60.333 with low variability, then
 - (C) Sample the natural gas supply to the combustion turbines semiannually during the first and third quarters of each calendar year.
 - (D) If any analyses indicate noncompliance with §60.333 or a substantial change in fuel quality then the Permittee must begin collecting natural gas samples weekly, notify DAQ of any exceedances, and commence a reexamination of the custom fuel monitoring schedule of (A) through (C), above.
 - (E) If the natural gas provider changes then the Permittee shall sample the natural gas supply to the combustion turbines daily for two weeks. If these analyses confirm compliance with §60.333 with low variability then the custom fuel monitoring schedule of (A) through (C), above, may be resumed.
 - ii. While burning No. 2 fuel oil in the combustion turbines the Permittee shall:
 - (A) Sample the No. 2 fuel oil from each delivery truck before adding that fuel to the No. 2 fuel oil storage tanks or sample the No. 2 fuel oil in a No. 2 fuel oil storage tank once filled and before beginning to supply fuel to the combustion turbines; or
 - (B) Utilize vendor analyses to demonstrate compliance with §60.333. If this option is utilized then all of the No. 2 fuel oil delivered to the site must comply with the limits in §60.333.
- d. As an alternate to the continuous water-to-fuel injection rate monitoring and fuel monitoring requirements specified in 40 CFR §§60.334(a) and (b), the Permittee shall demonstrate compliance with the nitrogen oxide emission limit in 40 CFR §60.332 for each combustion turbine using a nitrogen oxide continuous emissions monitoring system (CEMS) meeting the following requirements:

- i. Each CEMS shall meet the applicable requirements of 40 CFR §60.13, Appendix B and Appendix F for certifying, maintaining, operating and assuring quality of the system.
- ii. Each CEMS must be capable of calculating nitrogen oxide emissions concentrations corrected to 15% O₂.
- iii. The Permittee shall keep continuous records of the ambient temperature, ambient humidity and combustor inlet pressure so that the CEMS data can be corrected to International Organization for Standardization (ISO) standard ambient conditions anytime in the future to demonstrate compliance with the emission standard if requested by the Division of Air Quality.
- iv. Monitor data availability shall be no less than 95 percent using either:
 - (A) Monitor data for the current quarter; or
 - (B) Monitor data for the current quarter and the preceding (hours in the previous) quarter(s) until no more than a total of 200 hours of data are obtained.
- v. Each CEMS should provide a minimum of four data points (equally spaced) for each full operating hour and calculate a one-hour average.
- vi. Recordkeeping requirements shall follow the requirements specified in 40 CFR §60.7.

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

- e. The Permittee shall submit the following reports by 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.
 - i. For the purpose of reports required under 40 CFR §60.7(c), periods of excess emissions for sulfur dioxide shall be reported for any daily period during which the sulfur content of the fuel being fired exceeds 0.8 percent by weight;
 - ii. Submit an excess emissions (calculated according to the requirements of 40 CFR §60.13(h)) and monitoring systems performance report and/or a summary report form and monitoring report for the nitrogen oxide CEMS. These reports shall include information required in 40 CFR §§60.7(c) and (d) and shall contain a clearly calculated corresponding emission limitation as specified in 40 CFR §60.332; and
 - iii. Submit in writing the sulfur content of the No. 2 fuel oil fired in the combustion turbines and the number of hours of operation of each combustion turbine.

3. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. The following Best Available Control Technology (BACT) limits shall not be exceeded:
 - i. Short-term maximum emission rates from each turbine shall not exceed:

Pollutant	BACT Emission Limits ^a				BACT Controls
	Natural Gas		No. 2 Fuel Oil		
	lb/hr ^c	lb/MMBtu ^c	lb/hr ^c	lb/MMBtu ^c	
Opacity	20%	---	20%		Combustion control
Nitrogen oxides	104 ^b	0.0575 ^b (15 ppmvd) ^b	294 ^b	0.171 ^b (42 ppmvd) ^b	Water injection and dry low-NO _x combustors
Sulfur dioxide	2	0.001	82	0.0474	0.047% sulfur fuel oil
Carbon monoxide	104 ^b	0.0575 ^b	213 ^b	0.124 ^b	Combustion control
Volatile Organic Compounds	6	0.0032	8	0.0047	Combustion control
Particulates/PM-10	6	0.0032	23	0.0135	Combustion control
Sulfuric acid	0.14	0.00008			0.047% sulfur fuel oil

^a BACT limits shall apply at all times except as provided in Section 2.1 A.3.a.i.(A), below.

^b Based on a 24-hour rolling average calculated using only actual operating hours (periods of zero emissions when not operating are not included).

- c ppmvd = parts per million, volumetric dry basis lb/hr = pounds per hour
 lb/MMBtu = pounds per million Btu

(A) Emissions resulting from startup, shutdown or malfunction above those limits given in Section 2.1 A.3.a.i, above, are permitted during operation below 70% load provided that optimal operational practices are adhered to and periods of excess emissions are minimized. Emissions of nitrogen oxides shall not exceed 60 ppmvd below 55% load and shall not exceed 42 ppmvd between 55% and 70% load.

ii. Long term maximum emission rates from all turbines shall not exceed:

Pollutant	BACT Emission Limit ^a (tons per consecutive 12-month period)
Nitrogen oxides	1255
Sulfur dioxide	215
Carbon monoxide	1052.5
Volatile organic compounds	50
Particulates/PM-10	87.5

^a Emissions for the combustion turbines are for 1000 hours per year operation on fuel oil and 2000 hours per year on natural gas, at 100% load and ISO standard ambient conditions.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A.3.a.i, above, except as allowed under 2.1 A.3.a.i.(A), the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- c. The maximum hours of operation for each combustion turbine shall not exceed 3000 full load equivalent hours per rolling consecutive 12-month period and shall not exceed 1000 full load equivalent hours per rolling consecutive 12-month period when firing No. 2 fuel oil. Only natural gas shall be burned in the combustion turbines from April 1 through October 31 of each calendar year except during operational curtailment, recall of release capacity by firm transportation holders, Force Majeure events, and malfunctions. For purposes of this paragraph, "operational curtailment" shall mean when a interstate pipeline company or a local distribution company is unable to deliver, or restricts delivery of, gas to the Permittee; and "recall of release capacity" shall mean when holders of firm transportation rights (called capacity) that have allocated, released, or assigned, either permanently or temporarily, all or part of that capacity to others recall some or all of such capacity. The Permittee shall record and maintain records of the actual number of hours of operation when firing each fuel for each combustion turbine. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the records of actual number of hours of operation for each combustion turbine firing each fuel are not maintained.
- d. The amounts of each fuel combusted in each combustion turbine during each day shall be recorded and maintained. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the records of amounts of each fuel combusted in each combustion turbine are not maintained.
- e. The sulfur content of the No. 2 fuel oil shall not exceed 0.025 percent by weight.
- f. In order to ensure that the sulfur dioxide ambient concentrations at the James River Face Wilderness Area are below the Class I Significant Impact Levels, **the maximum No. 2 fuel oil sulfur content shall not exceed 0.025 percent by weight.**
- g. The Permittee shall monitor the sulfur content of the No. 2 fuel oil as specified in Section 2.1 A.2.c. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the No. 2 fuel oil sulfur content is not monitored or if the records of are not maintained.
- h. The Permittee shall demonstrate compliance with the nitrogen oxide emission limits specified in Section 2.1 A.3.a.i by determining nitrogen oxide emissions as specified in Section 2.1 A.2.d. If any 24-hour rolling average exceeds the limits specified in Section 2.1 A.3.a.i (except as allowed under Section 2.1 A.3.a.i.(A)) or records of nitrogen oxide emissions are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.
- i. The Permittee shall demonstrate compliance with the carbon monoxide emission limits specified in Section 2.1 A.3.a.i using a continuous emissions monitoring system (CEMS) meeting the following requirements:

- i. Each CEMS shall meet the applicable requirements of 40 CFR §60.13, Appendix B and Appendix F for certifying, maintaining, operating and assuring quality of the system.
- ii. Monitor data availability shall be no less than 95 percent using either:
 - (A) Monitor data for the current quarter; or
 - (B) Monitor data for the current quarter and the preceding (hours in the previous) quarter(s) until no more than a total of 200 hours of data are obtained.
- iii. Each CEMS should provide a minimum of four data points (equally spaced) for each full operating hour and calculate a one-hour average.
- iv. Recordkeeping requirements shall follow the requirements specified in 40 CFR §60.7.

If any 24-hour rolling average carbon monoxide emission exceeds the limits specified in Section 2.1 A.3.a.i (except as allowed under Section 2.1 A.3.a.i(A)) or records of carbon monoxide emissions are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- j. The Permittee shall submit the following reports by January 30 of each calendar year for the preceding six-month period between July and December and by July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.
 - i. Submit reports of any daily period during which the sulfur content of the No. 2 fuel oil being fired exceeds 0.025 percent by weight, as determined by the monitoring requirements in Section 2.1 A.2.c.
 - ii. Submit summary monitoring reports showing all 24-hour rolling averages for the nitrogen oxide CEMS data for periods of **excess emissions**, using only actual operating hours, in units of the associated limits in Section 2.1 A.3.a.i (i.e. lb/hr, lb/MMBtu, and ppmvd). For periods of startup, shutdown and malfunction, excess nitrogen oxide emissions to be reported are defined (per Section 2.1 A.3.a.i.(A)) as emissions exceeding 60 ppmvd below 55% load and emissions exceeding 42 ppmvd between 55% and 70% load. This report shall also contain the emission limitations as specified in Section 2.1 A.3.a.i.
 - iii. Submit summary monitoring reports showing all 24-hour rolling averages for the carbon monoxide CEMS data for periods of **excess emissions** (excluding periods of startup, shutdown and malfunction below 70% load; but including periods of startup, shutdown and malfunction at or above 70% load), using only actual operating hours, in units of the associated limits in Section 2.1 A.3.a.i (i.e. lb/hr and lb/MMBtu). This report shall also contain the emission limitations as specified in Section 2.1 A.3.a.i.

B. Two No. 2 fuel oil fixed-roof storage tanks with atmospheric vents (1,700,000 gallon capacity, each, ID Nos. ES-FT-1 and ES-FT-2)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile Organic Compounds	Best Available Control Technology (As defined in Section 2.1 B.1)	15A NCAC 2D .0530
Odorous emissions	State-Enforceable Only See Section 2.2 A	15A NCAC 2D .1806

1. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. The following Best Available Control Technology (BACT) limit shall not be exceeded:
 - i. Long term maximum emission rates for both storage tanks, combined, shall not exceed:

Pollutant	BACT Emission Limit (tons per consecutive 12-month period)
Volatile Organic Compounds	0.65 total

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

- b. The maximum storage volume for No. 2 fuel oil shall not exceed 1.7 million gallons at any given time for each tank.
- c. The No. 2 fuel oil throughput for the two storage tanks, combined, shall not exceed 63,935,000 gallons per consecutive 12-month period.

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

- d. The Permittee shall maintain readily accessible records showing the dimension of the storage vessels and an analysis showing the capacity of the storage vessels. All records shall be kept for the life of the source.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained.

- e. The Permittee shall keep records of the volume of each No. 2 fuel oil shipment (delivery) received and the volume of No. 2 fuel oil removed from each No. 2 fuel oil storage tank on a monthly basis (written or electronic format).

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the No. 2 fuel oil shipment (delivery) and removal records are not maintained or if the throughput for the two No. 2 fuel oil storage tanks combined exceeds the limit included above in Section 2.1 B.1.b.

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

- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked or received on or before January 30 of each calendar year for the preceding semiannual period between July and December and on or before July 30 of each calendar year for the preceding semiannual period between January and June. The report shall identify all instances of deviations from the requirements of this permit and contain the following:
 - i. The total volume of No. 2 fuel oil shipments (delivery) received during each of the consecutive 12-month periods ending during the reporting period.
 - ii. The total volume of No. 2 fuel oil removed from each of the storage tanks during each of the consecutive 12-month periods ending during the reporting period.

C. One No. 2 fuel oil-fired stand-by emergency generator (300 kW maximum rated power output, ID No. ES-EG-1)

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	15A NCAC 2D .0521
Various	Best Available Control Technology (As defined in Section 2.1 C.3)	15A NCAC 2D .0530
Hazardous Air Pollutants	Maximum Achievable Control Technology (No applicable requirements)	15A NCAC 2D .1111 [40 CFR Part 63, Subpart ZZZZ]
Odorous emissions	State-Enforceable Only See Section 2.2 A	15A NCAC 2D .1806

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

- a. Emissions of sulfur dioxide from the emergency generator (ID No. ES-EG-1) 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]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 C.1.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring, recordkeeping or reporting is required for sulfur dioxide emissions from the firing of No. 2 fuel oil in the emergency generator.

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

- a. Visible emissions from the emergency generator (ID No. ES-EG-1) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent opacity not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

Testing [15A NCAC 2D .2601]

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

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

- c. No monitoring, recordkeeping or reporting is required for visible emissions from the firing of No. 2 fuel oil in the emergency generator.

3. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. The following Best Available Control Technology (BACT) limit shall not be exceeded:
 - i. Long term maximum emission rates of emergency generator ID No. ES-EG-1 shall not exceed:

Pollutant	BACT Emission Limit (tons per consecutive 12-month period)	BACT Controls
Nitrogen oxides	2.6	No more than 500 hours of operation per consecutive 12-month period
Sulfur dioxide	0.03	
Carbon monoxide	0.56	
Volatile Organic Compounds	0.21	
Pariculate/PM-10	0.19	
Sulfuric acid	0.0026	

ii. Short-term maximum emission rates of emergency generator ID No. ES-EG-1 shall not exceed:

Pollutant	BACT Emission Limits				BACT Controls
	Natural Gas		No. 2 Fuel Oil		
	lb/hr	lb/MMBtu	lb/hr	lb/MMBtu	
Opacity			20%	---	Combustion control
Nitrogen oxides			10.4	3.7	
Sulfur dioxide			0.13	0.05	
Carbon monoxide			2.24	0.8	
Volatile Organic Compounds			0.84	0.3	
Particulates/PM-10			0.74	0.3	
Sulfuric acid			0.01	0.0038	

Notes: lb/MMBtu = pounds per million Btu
 lb/hr = pounds per hour

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

- b. The emergency generator (ID No. ES-EG-1) shall operate no more than 500 hours per consecutive 12-month period.
- c. The Permittee shall record monthly and total annually the hours of operation of the emergency generator. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained.

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

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

4. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

- a. The emergency generator (ID No. ES-EG-1) is subject to Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63, Subpart ZZZZ "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines." [15A NCAC 2D .1111]
- b. The emergency generator (ID No. ES-EG-1) is considered an existing stationary reciprocating internal combustion engine (RICE), pursuant to §63.6590(a)(1)(i), for the purposes of Subpart ZZZZ. Therefore, this emergency RICE is not required to meet the requirements of 40 CFR Part 63, Subparts ZZZZ or A "General Provisions" (i.e. an initial notification is not required for this emergency RICE). [§63.6590(b)(3)]

D. One No. 2 fuel oil-fired emergency fire water pump (133 horsepower maximum rated power output, ID No. ES-FP-1)

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	15A NCAC 2D .0521
Various	Best Available Control Technology (As defined in Section 2.1 D.3)	15A NCAC 2D .0530
Hazardous Air Pollutants	Maximum Achievable Control Technology (No applicable requirements)	15A NCAC 2D .1111 [40 CFR Part 63, Subpart ZZZZ]
Odorous emissions	State-Enforceable Only See Section 2.2 A	15A NCAC 2D .1806

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

- a. Emissions of sulfur dioxide from the emergency fire water pump (ID No. ES-FP-1) is 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]

Testing [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. 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 .0516.

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

- c. No monitoring, recordkeeping or reporting is required for sulfur dioxide emissions from the firing of No. 2 fuel oil in the emergency fire water pump.

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

- a. Visible emissions from the emergency fire water pump (ID No. ES-FP-1) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent opacity not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

Testing [15A NCAC 2D .2601]

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

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

- c. No monitoring, recordkeeping or reporting is required for visible emissions from the firing of No. 2 fuel oil in the emergency fire water pump.

3. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

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

- i. Long term maximum emission rates of emergency fire water pump ES-FP-1 shall not exceed:

Pollutant	BACT Emission Limit (tons per consecutive 12-month period)	BACT Controls
Nitrogen oxides	2.4	No more than 500 hours of operation per consecutive 12-month period
Sulfur dioxide	0.03	
Carbon monoxide	0.53	
Volatile Organic Compounds	0.2	
Pariculate/PM-10	0.17	
Sulfuric acid	0.0024	

- ii. Short-term maximum emission rates of emergency fire water pump ES-FP-1 shall not exceed:

Pollutant	BACT Emission Limits				BACT Controls
	Natural Gas		No. 2 Fuel Oil		
	lb/hr	lb/MMBtu	lb/hr	lb/MMBtu	
Opacity			20%	---	Combustion control
Nitrogen oxides			9.6	3.8	
Sulfur dioxide			0.12	0.05	
Carbon monoxide			2.1	0.8	
Volatile Organic Compounds			0.78	0.3	
Particulates/PM-10			0.68	0.3	
Sulfuric acid			0.01	0.0038	

Notes: lb/MMBtu = pounds per million Btu

lb/hr = pounds per hour

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

- b. The emergency fire water pump shall operate no more than 500 hours per consecutive 12-month period.
- c. The Permittee shall record monthly and total annually the hours of operation for this source. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained.

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

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

4. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

- a. The emergency fire pump (ID No. ES-FP-1) is subject to Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR Part 63, Subpart ZZZZ "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines." [15A NCAC 2D .1111]
- b. The emergency fire pump (ID No. ES-FP-1) is considered an existing stationary reciprocating internal combustion engine (RICE), pursuant to §63.6590(a)(1)(i), for the purposes of Subpart ZZZZ. Therefore, this emergency RICE is not required to meet the requirements of 40 CFR Part 63, Subparts ZZZZ or A "General Provisions" (i.e. an initial notification is not required for this emergency RICE). [§63.6590(b)(3)]

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

A. Facility-wide affected sources

State-Enforceable Only

1. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

- a. The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

2.3 - Phase II Acid Rain Permit Requirements

ORIS code: 55116

Effective: January 1, 2010 through December 31, 2014

A. Statement of Basis

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

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

		2010	2011	2012	2013	2014
CT1 (ES-CT-1) CT2 (ES-CT-2) CT3 (ES-CT-3) CT4 (ES-CT-4) CT5 (ES-CT-5)	SO ₂ allowances, under Tables 2, 3, or 4 of 40 CFR Part 73.	NA*	NA*	NA*	NA*	NA*
	NO _x limit	NA**				

* SO₂ allowances are not allocated by U.S. EPA for new units under 40 CFR Part 72.

** Does not apply to gas or oil-fired units.

C. Comments, Notes and Justifications

None.

D. Phase II Permit Application (attached)

The Phase II Permit Application 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 application.

Acid Rain Permit Application dated February 20, 2007

2.4 - Clean Air Interstate Rules (CAIR) Permit Requirements

ORIS code: 55116

The following sources are affected CAIR units:

Permitted Source	CAIR ID No.
ES-CT-1	1
ES-CT-2	2
ES-CT-3	3
ES-CT-4	4
ES-CT-5	5

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

1. The total nitrogen oxide (NO_x) emissions from the affected Clean Air Interstate Rules (CAIR) units listed above at the Duke Energy Carolinas, LLC – Rockingham County Combustion Turbine Facility shall not exceed, except as provided in 15A NCAC 2D .2408: [15A NCAC 2D .2403]
 - a. 194 tons annually for 2009-2014; and
 - b. 165 tons annually for 2015 and later
2. The affected CAIR NO_x sources shall comply with the requirements of 15A NCAC 2D .2408 using the trading program and banking set out in 40 CFR Part 96. [15A NCAC 2D .2407]
3. The owner or operator of any unit or source covered under 15A NCAC 2D .2403 shall be subject to the provisions of 40 CFR 96.106(f). [15A NCAC 2D .2403(e)]

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

4. The emissions of nitrogen oxides of a CAIR NO_x source shall not exceed the number of allowances that it has in its compliance account established and administered under 15A NCAC 2D .2408.
5. The emissions measurements recorded and reported according to 40 CFR Part 96 Subpart HH shall be used to determine compliance by each CAIR NO_x source with its emissions limitation according to 40 CFR 96.106(c) including 96.106(c)(5) and 96.106(c)(6).
6. The provisions of 40 CFR 96.106(d) shall be used for excess emissions.

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

1. Ozone season NO_x emissions from the affected CAIR units listed above at the Duke Energy Carolinas, LLC – Rockingham County Combustion Turbine Facility shall not exceed, except as provided in 15A NCAC 2D .2408: [15A NCAC 2D .2405(a)(1) and (b)]
 - a. 99 tons during the ozone season for 2009-2014; and
 - b. 84 tons during the ozone season for 2015 and later

The ozone season shall be defined as the period of time extending from May 1st to September 30th of each calendar year.

2. The affected CAIR NO_x Ozone Season sources shall comply with the requirements of 15A NCAC 2D .2408 using the trading program and banking set out in 40 CFR Part 96. [15A NCAC 2D .2408]
3. The owner or operator of any unit or source covered under 15A NCAC 2D .2405 shall be subject to the provisions of 40 CFR 96.306(f). [15A NCAC 2D .2405(g)]

Monitoring/Recordkeeping/Reporting [15A NCAC 2D .2405(d) and (e), and 15A NCAC 2D .2407(a)]

4. The Permittee shall comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR 96.306(b) and (e), and 40 CFR 96 Subpart HHHH for each CAIR Ozone Season NO_x unit.
5. The nitrogen oxide ozone season emissions of a CAIR NO_x Ozone Season source shall not exceed the number of allowances that it has in its compliance account established and administered under 15A NCAC 2D .2408. For purposes of making deductions for excess emissions for the ozone season in 2008 under the NO_x SIP Call (15A NCAC 2D .1400), the Administrator

shall deduct allowances allocated under 15A NCAC 2D .2405 for the ozone season in 2009.

6. The emissions measurements recorded and reported according to 40 CFR Part 96 Subpart HHHH shall be used to determine compliance by each CAIR NO_x Ozone Season source with its emissions limitation according to 40 CFR 96.306(c) including 96.306(c)(5) and 96.306(c)(6).
7. The provisions of 40 CFR 96.306(d) shall be used for excess emissions.

C. 15A NCAC 2D .2404: SULFUR DIOXIDE EMISSIONS

1. The annual allocation of sulfur dioxide (SO₂) allowances shall be determined by EPA. The allocations for CAIR SO₂ units are listed in the table below (these allocations are from 40 CFR 73.10):

Source	Allocation for 2000-2009	Allocation for 2010 and later
1 (ES-CT-1)	None	None
2 (ES-CT-2)	None	None
3 (ES-CT-3)	None	None
4 (ES-CT-4)	None	None
5 (ES-CT-5)	None	None

2. The affected CAIR SO₂ sources shall comply with the requirements of 15A NCAC 2D .2408 using the trading program and banking set out in 40 CFR Part 96. [15A NCAC 2D .2408]
3. The owner or operator of any unit or source covered under 15A NCAC 2D .2404 shall be subject to the provisions of 40 CFR 96.206(f). [15A NCAC 2D .2404(f)]

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

3. The emissions of sulfur dioxides of a source described in Section 2.4.C.1, above, shall not exceed the number of allowances that it has in its compliance account established and administered under 15A NCAC 2D .2408.
4. The owner or operator of a unit covered under 15A NCAC 2D .2404 shall comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR 96.206(b) and (e) and in 40 CFR Part 96, Subpart HHH for each CAIR SO₂ unit.
5. The emissions measurements recorded and reported according to 40 CFR Part 96 Subpart HHH shall be used to determine compliance by each CAIR SO₂ source with its emissions limitation according to 40 CFR 96.206(c) including 96.206(c)(5) and 96.206(c)(6).
6. The provisions of 40 CFR 96.206(d) shall be used for excess emissions.

D. CAIR Permit Application (attached)

The permit application submitted for this facility, as approved by the Department of Environment and Natural Resources, Division of Air Quality, is part of this permit. The owner and operator of these CAIR NO_x and SO₂ sources must comply with the standard requirements and special provisions set forth in the following attached application:

CAIR Permit Application dated June 25, 2007.

SECTION 3 - GENERAL CONDITIONS (version 3.0)

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

A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]

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

B. **Permit Availability** [15A NCAC 2Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environment and Natural Resources upon request.

C. **Severability Clause** [15A NCAC 2Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 2Q .0507(e) and 2Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

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

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 2Q .0508(i)(2)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and 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 in Ownership or Operation and Application Submittal Content [15A NCAC 2Q .0524 and 2Q .0505]

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

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

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

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

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

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

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

H. **Changes Not Requiring Permit Modifications**

1. Reporting Requirements

Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:

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

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

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

- a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
- b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;
 - iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
- c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.

d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.

3. Off Permit Changes [15A NCAC 2Q .0523(b)]

The Permittee may make changes in the operation or emissions without revising the permit if:

- a. the change affects only insignificant activities and the activities remain insignificant after the change; or
- b. the change is not covered under any applicable requirement.

4. Emissions Trading [15A NCAC 2Q .0523(c)]

To the extent that emissions trading is allowed under 15A NCAC 2D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 2Q .0523(c).

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

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

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

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

Excess Emissions

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

Permit Deviations

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;

4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and 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 or to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2600 and follow the procedures outlined below:

1. The Permittee shall submit a completed Protocol Submittal Form to the DAQ Regional Supervisor at least 45 days prior to the scheduled test date. A copy of the Protocol Submittal Form may be obtained from the Regional Supervisor.
2. The Permittee shall notify the Regional Supervisor of the specific test dates at least 15 days prior to testing in order to afford the DAQ the opportunity to have an observer on-site during the sampling program.

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

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

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

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

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

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

As required by 15A NCAC 2D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 2D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

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

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

OO. **Mandatory Greenhouse Gas Reporting Requirements** [15A NCAC 2Q .0508]
FEDERAL-ENFORCEABLE ONLY

If the Permittee is subject to requirements of 40 CFR 98.2(a), the Permittee shall submit all required reports to the EPA Administrator in accordance with 40 CFR 98.

ATTACHMENT 1 to Permit No. 08731T10
Duke Energy Carolinas, LLC – Rockingham County CT facility

List of Acronyms

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

ATTACHMENT 2 to Permit No. 08731T10
Duke Energy Carolinas, LLC – Rockingham County CT facility

Acid Rain Permit Application dated February 20, 2007 (four page attachment)

Proposed

ATTACHMENT 3 to Permit No. 08731T10
Duke Energy Carolinas, LLC – Rockingham County CT facility

Clean Air Interstate Rules Application dated June 25, 2007 (five page attachment)

Proposed