



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

DRAFT

Mr. James Klemes  
Vice President  
Rowan County Power, LLC  
410 S. Wilmington Street, Mail Code 333-4  
Raleigh, NC 27601

SUBJECT: Air Quality Permit No. 08758T07  
Facility ID: 8000163  
Rowan County Power, LLC  
Salisbury, North Carolina  
Rowan County  
Fee Class: Title V

Dear Mr. Klemes:

In accordance with your completed Air Quality Permit Application for a significant modification of a Title V permit received June 16, 2005, we are forwarding herewith Air Quality Permit No. 08758T07 to Rowan County Power, LLC, Salisbury, Rowan County, North Carolina, authorizing the operation, as outlined in Part I, and the construction and/or operation, as outlined in Part II, 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 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*

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. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding.

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 143-215-108(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 143-215.108 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 \_\_\_\_\_ until December 31, 2007 is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein. The Phase II Acid Rain permit requirements shall be effective from January 1, 2006 until December 31, 2010.

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

Sincerely yours,

Laura S. Butler, P.E.  
Chief

Enclosure

c: Gregg Worley, EPA Region 4  
Michael Landis, Mooresville Regional Office  
Central Files

**Air Permit 08758T07  
Attachment**

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

| <b>Emission Source I.D.</b> | <b>Emission Source Description</b>                     | <b>Insignificant Activity Regulation</b> |
|-----------------------------|--------------------------------------------------------|------------------------------------------|
| 1.                          | one 4 million Btu/hr natural gas heater                | 2Q .0503(8)                              |
| 2.                          | five, 6,200 gallons each, lube oil reservoir           | 2Q .0503(8)                              |
| 3.                          | five, 500 gallons each, false start drain tank         | 2Q .0503(8)                              |
| 4.                          | five, 5,000 gallons each, CT wash tank                 | 2Q .0503(8)                              |
| 5.                          | one 6,000 gallon sodium hypochlorite (bleach) tank     | 2Q .0503(8)                              |
| 6.                          | one 6,000 gallon sulfuric acid tank                    | 2Q .0503(8)                              |
| 7.                          | two, 16,500 gallons each, 19.5 % aqueous ammonia tanks | 2Q .0503(8)                              |

**Air Permit 08758T07  
Attachment**

The following changes were made to the Rowan County Power, LLC Air Permit No. 08758T07:

| <b>Page(s)</b> | <b>Part, Section</b>  | <b>Change</b>                                     |
|----------------|-----------------------|---------------------------------------------------|
| Cover          | -                     | Amended permit numbers and dates.                 |
| TOC            | -                     | Revised for new Acid Rain application attachment. |
| 24-25          | Part I, Section 2.3   | Revised Acid Rain effective dates.                |
| 25             | Part I, Section 2.3.4 | Revised for new Acid Rain application attachment. |
| 25-33          | Part I, Section 3     | Added new set of General Conditions.              |

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

**Division of Air Quality**



## AIR QUALITY PERMIT

| Permit No. | Replaces Permit No. | Effective Date | Expiration Date |
|------------|---------------------|----------------|-----------------|
| 08758T07   | 08758T06            | DRAFT          | July 31, 2007   |

\* 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 authorized to operate, as outlined in Part I, and to construct, as outlined in Part II, 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:** **Rowan County Power, LLC**

**Facility ID:** **8000163**  
**Facility Site Location:** **5755 North Carolina 801 Highway**  
**City, County, State, Zip:** **Salisbury, Rowan County, NC 28144**

**Mailing Address:** **410 S. Wilmington Street, Mail Code 333-4**  
**City, State, Zip:** **Raleigh, NC 27601**

**Application Number:** **8000163.05B**  
**Complete Application Date:** **June 16, 2005**  
**Renewal Application Due Date:** **March 30, 2007 (Phase II Acid Rain portion may differ)**  
**Primary SIC Code:** **4911**

**Division of Air Quality,**  **Mooresville Regional Office**  
**Regional Office Address:** **610 East Center Avenue, Suite 301, Mooresville, NC 28115**

Permit issued this the \_\_\_\_ day of \_\_\_\_\_, 2005

\_\_\_\_\_  
Laura S. Butler, P.E., Chief, Air Permits Section  
By Authority of the Environmental Management Commission

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Acid Rain Permit Application dated June 14, 2005

# 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                                                    | Emission Source Description                                                                                                                                                                                                                                                                                                                                                                                           | Control Device ID No. | Control Device                      |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------|
| Unit 1, Unit 2, and Unit 3<br><br>PSD<br>NSPS<br>Subpart GG | three natural gas/No. 2 fuel oil-fired simple-cycle internal combustion turbines (1,628 million Btu per hour heat input rate each, when firing natural gas, 1,875 million Btu per hour heat input rate each, when firing No. 2 fuel oil), each equipped with dual fuel dry Low-NOx combustors and having water injection capability for NO <sub>x</sub> control                                                       | N/A                   | No Controls                         |
| Unit 4<br><br>PSD<br>NSPS<br>Subpart GG                     | one natural gas/No. 2 fuel oil-fired simple-cycle/combined-cycle internal combustion turbine (1,628 million Btu per hour heat input rate, when firing natural gas, 1,875 million Btu per hour heat input rate, when firing No. 2 fuel oil), equipped with a heat recovery steam generator and a steam turbine, and dual fuel dry Low-NOx combustors and having water injection capability for NO <sub>x</sub> control | Unit 4 SCR            | selective catalytic reduction (SCR) |
| Unit 5<br><br>PSD<br>NSPS<br>Subpart GG                     | one natural gas-fired simple-cycle/combined-cycle internal combustion turbine (1,628 million Btu per hour heat input), equipped with a heat recovery steam generator and a steam turbine, and dual fuel dry Low-NOx combustors                                                                                                                                                                                        | Unit 5 SCR            | selective catalytic reduction (SCR) |

|                                            |                                                                                                                                                                 |     |             |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------|
| TK-1 and TK-2<br>PSD<br>NSPS<br>Subpart Kb | two No. 2 fuel oil, fixed-roof storage tanks (not to exceed 3.6 million gallons capacity each, actual capacity 3.1 million gallons each) with atmospheric vents | N/A | No Controls |
| Tower 1<br>PSD                             | one cooling tower with drift eliminators (123,220 gallons per minute recirculating water flow rate)                                                             | N/A | No Controls |
| ES-6<br>NSPS<br>Subpart Dc                 | one natural gas fired auxiliary boiler (16.74 million Btu per hour heat input rate)                                                                             | N/A | No Controls |

## 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. Three natural gas/No. 2 fuel oil-fired simple-cycle internal combustion turbines (1,628 million Btu per hour heat input rate each, when firing natural gas, 1,875 million Btu per hour heat input rate each, when firing No. 2 fuel oil), each equipped with dual fuel dry Low-NO<sub>x</sub> combustors and having water injection capability for NO<sub>x</sub> control (ID Nos. Unit 1, Unit 2, and Unit 3)**

| Regulated Pollutant | Limits/Standards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Applicable Regulation                                                  |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| visible emissions   | State-only requirement<br>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<br><br>Federal-only requirement<br>20 percent opacity (except during startups) 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<br><br>40 CFR 52 Subpart II                          |
| sulfur dioxide      | as defined in specific conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 15A NCAC 2D .0524 (40 CFR Part 60 Subpart GG)                          |
| nitrogen oxides     | as defined in specific conditions<br><br>as defined in specific conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 15A NCAC 2D .0524 (40 CFR Part 60 Subpart GG)<br><br>15A NCAC 2D .1417 |

|                          |                                                                                |                   |
|--------------------------|--------------------------------------------------------------------------------|-------------------|
| various                  | as defined in specific conditions                                              | 15A NCAC 2D .0530 |
| hazardous air pollutants | as defined in specific conditions and Section 2.2 A.1.                         | 15A NCAC 2D .1112 |
| toxic air pollutants     | as defined in specific conditions and Section 2.2 A.2., State-only Requirement | 15A NCAC 2D .1104 |

State-Only Requirement

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

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

**Testing** [15A NCAC 2D .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.

**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 source operates more than 1100 hours using No. 2 fuel oil. This monitoring procedure shall be repeated before each subsequent 1100 hours of operation using No. 2 fuel oil from the last test. 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.

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

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

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

Federal-Only Requirement

**2. 40 CFR 52 SUBPART II: NORTH CAROLINA STATE IMPLEMENTATION PLAN**

- a. Visible emissions from these sources shall not be more than 20 percent opacity (except during startups) 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.

**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 A.2.a. above, the Permittee shall be deemed in noncompliance with 40 CFR 52 Subpart II.

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

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

**3. 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, including Subpart A "General Provisions." [15A NCAC 2D .0524]
- b. NSPS Emissions Limitations - As required by 15A NCAC 2D .0524, the following permit limits shall not be exceeded:

| Affected Facility                                                  | Pollutant       | Emission Limit                                                         |
|--------------------------------------------------------------------|-----------------|------------------------------------------------------------------------|
| combustion turbines<br>(ID Nos. Unit 1 through Unit 4, and Unit 6) | nitrogen oxides | STD* =<br>$0.0075 \times [(14.4) / Y^{**}] + F^{***}$                  |
|                                                                    | sulfur dioxide  | 0.015 percent by volume****<br>or<br>0.8 percent weight sulfur in fuel |

\* STD = allowable nitrogen oxides emissions in percent by volume at 15 percent O<sub>2</sub> 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<sub>x</sub> emission allowance for fuel bound nitrogen as defined in 40CFR60.332(a)(3).  
 \*\*\*\* allowable sulfur dioxide emissions at 15 percent O<sub>2</sub> on a dry basis.

**Testing** [15A NCAC 2D .0501]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3. b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- d. In addition to any other monitoring requirements of the EPA, the Permittee is required to monitor the following:
  - i. The sulfur content of the fuel being fired in each combustion turbine shall be monitored as specified in 40 CFR 60.334(b) to demonstrate compliance with the sulfur dioxide standard in 40 CFR 60.333, using the test methods and procedures in 40 CFR 60.335, except as follows:  
 When firing fuel oil, as an alternate to sampling each occasion that fuel oil is transferred to each storage tank from any other source (as specified in 40 CFR 60.334(b)(1)), the Permittee may sample each tank to determine sulfur content after all shipments have been transferred into the tank and prior to placing the tank in service for supply to the turbines. Samples shall be analyzed for sulfur content in accordance with 40 CFR Part 75, Appendix D.  
 When firing natural gas, the procedures from 40 CFR Part 75, Appendix D shall be used to sample and analyze for sulfur content.  
 If the sulfur content of the fuel burned in each combustion turbine is not monitored as specified above or the sulfur dioxide emission rate of combustion turbine is above the limit given in Section 2.1 A. 3. b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.
  - ii. The nitrogen content of the fuel being fired in each combustion turbine shall be monitored as specified in 40 CFR 60.334(b) to demonstrate compliance with the nitrogen oxides standard as specified in 40 CFR 60.332, using the test methods and procedures in 40 CFR 60.335, except as follows:  
 When firing fuel oil, as an alternate to sampling each occasion that fuel oil is transferred to each storage tank from any other source (as specified in 40 CFR 60.334(b)(1)), the Permittee may sample each tank to determine nitrogen content after all shipments have been transferred into the tank and

prior to placing the tank in service for supply to the turbines. Samples shall be analyzed for nitrogen content in accordance with ASTM Method D4629.

Monitoring of fuel nitrogen shall not be required while pipeline natural gas is the only fuel being fired in the combustion turbines.

If the nitrogen content of the fuel burned in each combustion turbine is not monitored as specified above or the nitrogen oxides emission rate of any combustion turbine is above the limit given in Section 2.1 A. 3. b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

- iii. As required by 40 CFR 60.334(a), using the test methods and procedures in 40 CFR 60.335(c)(2), a continuous monitoring system shall be installed and operated to monitor and record fuel consumption and the ratio of water-to-fuel when firing fuel oil in each combustion turbine. The monitoring device shall be calibrated and maintained in accordance with the manufacturer's specifications. This system shall be accurate to within  $\pm 5.0$  percent and must be approved by the Division of Air Quality prior to initial testing. The permittee shall comply with the requirements of 40 CFR Part 60, Appendix B, Performance Specifications and Appendix F, Quality Assurance Procedures for continuous monitoring systems, installed on each combustion turbine (ID Nos. Unit 1 through Unit 3).  
If the fuel consumption or the ratio of water-to-fuel being fired is not monitored and recorded continuously, for each combustion turbine (ID Nos. Unit 1 through Unit 3), the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- e. In addition to any other reporting requirements to the EPA, the Permittee is required to **REPORT** the Regional Supervisor, DAQ, in **WRITING**, of the following:
  - i. The date construction (40 CFR 60.7) or reconstruction (40 CFR 60.15) of an affected facility is commenced, postmarked no later than 30 days after such date;
  - ii. The actual date of initial start-up of an affected facility, postmarked within 15 days after such date;
  - iii. Periods of excess emissions for sulfur dioxide, in accordance with 40 CFR 60.7(c), for any daily period during which the sulfur content of the fuel being fired exceeds 0.8 percent by weight, within 30 days after each calendar year quarter for the previous 3-month period;
  - iv. Periods of excess emissions for nitrogen oxides when firing fuel oil, in accordance with 40 CFR 60.7(c), for any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with 40 CFR 60.332 by the performance test required in 40 CFR 60.8; or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound allowance used during the performance test required in 40 CFR 60.8; within 30 days after each calendar year quarter for the previous 3-month period; and
  - v. 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, within 30 days after each calendar year quarter for the previous 3-month period.

**4. 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 for each simple-cycle combustion turbine (ID No. Unit 1 through Unit 3) shall not exceed:

| AFFECTED SOURCE                                                     | POLLUTANT                          | BACT EMISSION LIMITS <sup>a</sup>                                                                         |                                                                          | BACT CONTROLS                                             |
|---------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------|
|                                                                     |                                    | Natural Gas                                                                                               | No. 2 Fuel Oil                                                           |                                                           |
|                                                                     |                                    | lb/mmBtu<br>ppm                                                                                           | lb/mmBtu<br>ppm                                                          |                                                           |
| combustion turbines<br>(ID Nos. Unit 1 through Unit 3),<br>per unit | opacity                            | 20%                                                                                                       | 20%                                                                      | combustion control                                        |
|                                                                     | nitrogen oxides                    | During initial BACT testing:                                                                              | 0.176<br>42 ppmvd <sup>b</sup><br>(24-hour rolling average) <sup>c</sup> | natural gas: dry-low NOx<br><br>fuel oil: water injection |
|                                                                     |                                    | 0.039<br>9 ppmvd <sup>b</sup><br>(24-hour rolling average) <sup>c</sup>                                   |                                                                          |                                                           |
|                                                                     |                                    | After initial BACT testing:<br>0.045<br>10.5 ppmvd <sup>b</sup><br>(24-hour rolling average) <sup>c</sup> |                                                                          |                                                           |
|                                                                     | sulfur dioxide                     | 0.0006                                                                                                    | 0.0515                                                                   | 0.05% sulfur fuel oil                                     |
|                                                                     | carbon monoxide                    | 0.018<br>9 ppmvd                                                                                          | 0.037<br>20 ppmvd                                                        | combustion control                                        |
|                                                                     | VOCs                               | 0.0015<br>1.4 ppmvw                                                                                       | 0.004<br>3.5 ppmvw                                                       | combustion control                                        |
|                                                                     | particulates/PM-10<br>(front half) | 0.0055                                                                                                    | 0.009                                                                    | combustion control                                        |
|                                                                     | sulfuric acid                      |                                                                                                           | fuel oil sulfur content                                                  | 0.05% sulfur fuel oil                                     |

<sup>a</sup> BACT limits shall apply at all times except as provided under Section 2.1 A. 4. a. ii.

<sup>b</sup> ppmvd = parts per million by volume on a dry basis at 15% O<sub>2</sub>.

<sup>c</sup> 24-hour rolling average is calculated using only actual operating hours (periods of zero emissions when not operating are not included).

- ii. Emissions resulting from start-up, shutdown or malfunction above those given in Section 2.1 A. 4. a. i. are permitted provided that optimal operational practices are adhered to and periods of excess emissions are minimized. For the simple-cycle turbines, periods of excess emissions due to start-up

and/or shutdown or operation below 50% load shall not exceed two hours in any 24-hour block period beginning at midnight. Start-up is defined as the period from initial firing to 50% load. Shutdown is defined as the period from 50% load to flame out.

- b. The following emission limits apply in order to demonstrate compliance with the National Ambient Air Quality Standards as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

| AFFECTED SOURCE                                            | POLLUTANT                       | EMISSION LIMIT                |                  |                 |                 |                 |
|------------------------------------------------------------|---------------------------------|-------------------------------|------------------|-----------------|-----------------|-----------------|
|                                                            |                                 | Annual (tons/yr) <sup>a</sup> | per 24-hour (lb) | per 8-hour (lb) | per 3-hour (lb) | per 1-hour (lb) |
| combustion turbines (ID Nos. Unit 1 through Unit 5), total | nitrogen dioxide                | 1224.4                        |                  |                 |                 |                 |
|                                                            | sulfur dioxide                  | 257.3                         | 11,580           |                 | 1447.5          |                 |
|                                                            | carbon monoxide                 |                               |                  | 2680            |                 | 335             |
|                                                            | particulates/PM-10 (front half) | 125.8                         | 2040             |                 |                 |                 |

<sup>a</sup> Tons per rolling consecutive 12-month period. Annual emissions for the combustion turbines are for all five turbines firing fuel oil for 1000 hours per year, three simple-cycle turbines firing natural gas for 1000 hours per year and two combined-cycle turbines firing natural gas for 7760 hours per year, at 100% load.

**Testing** [15A NCAC 2D .0501]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.4. a. i. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- d. The maximum annual hours of operation for each combustion turbine (ID Nos. Unit 1 through Unit 3) shall not exceed 1000 full load equivalent hours per rolling consecutive 12-month period when firing No. 2 fuel oil.
- e. The maximum annual hours of operation for each simple-cycle combustion turbine (ID Nos. Unit 1 through Unit 3) shall not exceed 2000 full load equivalent hours per rolling consecutive 12-month period.
- f. The Permittee shall record and maintain records of the actual number of hours of operation, and the amounts of each fuel burned during each day for each combustion turbine (ID Nos. Unit 1 through Unit 3) in accordance with 40 CFR Part 75. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the above records are not maintained.
- g. Only natural gas shall be burned during summer months (April through October) except during operational curtailment of interruptible transportation, Force Majeure events, malfunctions, functional equipment testing (periods not to exceed one hour per week), and during compliance testing.
- h. No more than three combustion turbines shall burn No. 2 fuel oil simultaneously.
- i. The sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent sulfur by weight.
- j. Water injection shall be used when the combustion turbines are firing No. 2 fuel oil only.
- k. The Permittee shall monitor operations to demonstrate compliance with the BACT emission limits as follows:
- i. Determine the sulfur content of the fuel being fired in each combustion turbine in accordance with Section 2.1 A. 3. d. i.
  - ii. Determine nitrogen oxide emissions as specified in 40 CFR Part 75 Appendix E. At least 45 days prior to performing any required initial performance testing required by the procedure in Appendix E, the

Permittee must submit a testing protocol to the Regional Supervisor, Division of Air Quality for review and approval prior to performing such tests.

Note: If Appendix E is being used in lieu of a NO<sub>x</sub> CEM under the Acid Rain Program, then certification to use Appendix E shall be completed no later than the applicable deadline specified in 40 CFR Part 75.4 pursuant to the requirements in §75.20.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the sulfur content of the fuel is not monitored or the nitrogen oxide emissions are not monitored.

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

1. The Permittee shall submit in writing 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:
  - i. periods of excess emissions for sulfur dioxide for any daily period during which the sulfur content of the No. 2 fuel oil being fired exceeds 0.05 percent by weight, within 30 days after each calendar year quarter for the previous 3-month period; and
  - ii. periods of excess emissions for nitrogen oxides for any 24-hour rolling averaging period during which the concentrations exceed 0.045 lb/mmBtu (10.5 ppmvd) when firing natural gas and 0.176 lb/mmBtu (42 ppmvd) when firing No. 2 fuel oil, as determined by the procedure specified in 40 CFR Part 75 Appendix E, postmarked within 30 days after each calendar year quarter for the previous 3-month period. The 24-hour rolling average is calculated using only actual operating hours (periods of zero emissions when not operating are not included). A valid hourly emission rate shall be calculated for each hour in which at least two NO<sub>x</sub> concentrations are obtained at loads above 50 percent at least 15 minutes apart.

**5. 15A NCAC 2D .1417: EMISSION ALLOCATIONS FOR LARGE COMBUSTION SOURCES**

- a. Before the EPA promulgation of revisions after November 1, 2000, to 40 CFR Part 51, Subpart G, revising the nitrogen oxide budget for North Carolina, the following limits apply beginning May 31 through September 30, 2004 and May 1 through September 30, 2005 and each year thereafter until revised according to 15A NCAC 2D .1420, except as allowed by 15A NCAC 2D .1419:

| SOURCE                                | NO <sub>x</sub> EMISSION ALLOCATIONS<br>(tons/ozone season) |      |                |
|---------------------------------------|-------------------------------------------------------------|------|----------------|
|                                       | 2004                                                        | 2005 | 2006 and later |
| Combustion Turbine<br>(ID No. Unit 1) | 22                                                          | 27   | 27             |
| Combustion Turbine<br>(ID No. Unit 2) | 22                                                          | 27   | 27             |
| Combustion Turbine<br>(ID No. Unit 3) | 22                                                          | 27   | 27             |

- b. After the EPA promulgates revisions after November 1, 2000, to 40 CFR Part 51, Subpart G, revising the nitrogen oxide budget for North Carolina, the following limits apply beginning May 31 through September 30, 2004 and May 1 through September 30, 2005 and each year thereafter until revised according to 15A NCAC 2D .1420, except as allowed by 15A NCAC 2D .1419:

| SOURCE                                | NO <sub>x</sub> EMISSION ALLOCATIONS<br>(tons/ozone season) |      |                |
|---------------------------------------|-------------------------------------------------------------|------|----------------|
|                                       | 2004                                                        | 2005 | 2006 and later |
| Combustion Turbine<br>(ID No. Unit 1) | 22                                                          | 27   | 27             |

|                                       |    |    |    |
|---------------------------------------|----|----|----|
| Combustion Turbine<br>(ID No. Unit 2) | 22 | 27 | 27 |
| Combustion Turbine<br>(ID No. Unit 3) | 22 | 27 | 27 |

- c. Sources (ID Nos. Unit 1 through Unit 3) shall comply with the requirements of 15A NCAC 2D .1417 using the nitrogen oxide budget trading program set out in 15A NCAC 2D .1419.
- d. **Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]  
The Permittee shall assure compliance with 15A NCAC 2D .1417 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 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 .1417.

**B. One natural gas/No. 2 fuel oil-fired simple-cycle/combined-cycle internal combustion turbine (1,628 million Btu per hour heat input rate, when firing natural gas, 1,875 million Btu per hour heat input rate, when firing No. 2 fuel oil), equipped with a heat recovery steam generator and a steam turbine, and dual fuel dry Low-NO<sub>x</sub> combustors and having water injection capability for NO<sub>x</sub> control (ID No. Unit 4), and associated SCR (ID No. Unit 4 SCR)**

**One natural gas-fired simple-cycle/combined-cycle internal combustion turbine (1,628 million Btu per hour heat input), equipped with a heat recovery steam generator and a steam turbine, and dual fuel dry Low-NO<sub>x</sub> combustors (ID No. Unit 5), and associated SCR (ID No. Unit 5 SCR)**

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   | State-only requirement<br>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<br><br>Federal-only requirement<br>20 percent opacity (except during startups) 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<br><br>40 CFR 52 Subpart II |
| sulfur dioxide      | as defined in specific conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 15A NCAC 2D .0524 (40 CFR Part 60 Subpart GG) |
| nitrogen oxides     | as defined in specific conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 15A NCAC 2D .0524 (40 CFR Part 60 Subpart GG) |
|                     | as defined in specific conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 15A NCAC 2D .1417                             |

|                          |                                                                                |                   |
|--------------------------|--------------------------------------------------------------------------------|-------------------|
| various                  | as defined in specific conditions                                              | 15A NCAC 2D .0530 |
| hazardous air pollutants | as defined in specific conditions and Section 2.2 A.1.                         | 15A NCAC 2D .1112 |
| toxic air pollutants     | as defined in specific conditions and Section 2.2 A.2., State-only Requirement | 15A NCAC 2D .1104 |

State-Only Requirement

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

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

**Testing** [15A NCAC 2D .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.

**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 source operates more than 1100 hours using No. 2 fuel oil. This monitoring procedure shall be repeated before each subsequent 1100 hours of operation using No. 2 fuel oil from the last test. 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.

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

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

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

Federal-Only Requirement

**2. 40 CFR 52 SUBPART II: NORTH CAROLINA STATE IMPLEMENTATION PLAN**

- a. Visible emissions from these sources shall not be more than 20 percent opacity (except during startups) 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.

**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 40 CFR 52 Subpart II.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the sixteen combustion turbines to assure compliance with this regulation.

**3. 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, including Subpart A "General Provisions." [15A NCAC 2D .0524]
- b. NSPS Emissions Limitations - As required by 15A NCAC 2D .0524, the following permit limits shall not be exceeded:

| Affected Facility                                                  | Pollutant       | Emission Limit                                                         |
|--------------------------------------------------------------------|-----------------|------------------------------------------------------------------------|
| combustion turbines<br>(ID Nos. Unit 1 through Unit 4, and Unit 6) | nitrogen oxides | STD* =<br>$0.0075 \times [(14.4) / Y^{**}] + F^{***}$                  |
|                                                                    | sulfur dioxide  | 0.015 percent by volume****<br>or<br>0.8 percent weight sulfur in fuel |

\* STD = allowable nitrogen oxides emissions in percent by volume at 15 percent O<sub>2</sub> 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<sub>x</sub> emission allowance for fuel bound nitrogen as defined in 40CFR60.332(a)(3).  
 \*\*\*\* allowable sulfur dioxide emissions at 15 percent O<sub>2</sub> on a dry basis.

**Testing** [15A NCAC 2D .0501]

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.3. b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- d. In addition to any other monitoring requirements of the EPA, the Permittee is required to monitor the following:
  - i. The sulfur content of the fuel being fired in each combustion turbine shall be monitored as specified in 40 CFR 60.334(b) to demonstrate compliance with the sulfur dioxide standard in 40 CFR 60.333, using the test methods and procedures in 40 CFR 60.335, except as follows:  
 When firing fuel oil, as an alternate to sampling each occasion that fuel oil is transferred to each storage tank from any other source (as specified in 40 CFR 60.334(b)(1)), the Permittee may sample each tank to determine sulfur content after all shipments have been transferred into the tank and prior to placing the tank in service for supply to the turbines. Samples shall be analyzed for sulfur content in accordance with 40 CFR Part 75, Appendix D.  
 When firing natural gas, the procedures from 40 CFR Part 75, Appendix D shall be used to sample and analyze for sulfur content.  
 If the sulfur content of the fuel burned in each combustion turbine is not monitored as specified above or the sulfur dioxide emission rate of combustion turbine is above the limit given in Section 2.1 B. 3. b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.
  - ii. 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 Part 75 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% O<sub>2</sub>.

- iii. The Permittee shall maintain records of the ambient temperature, ambient humidity and combustor inlet pressure so that the CEMS data can be corrected to ISO standard ambient conditions anytime in the future to demonstrate compliance with the emission standard if requested by the Division of Air Quality. As an alternate to maintaining the above records, the ISO correction for NO<sub>x</sub> may be made by turbine internal control algorithm if approved by DAQ.
  - iv. Monitor data availability shall be as determined by 40 CFR Part 75.
  - v. Each CEMS should provide a minimum of 2 data points for each hour and calculate a 1-hour average as per 40 CFR Part 75.
  - vi. Recordkeeping requirements shall follow the requirements specified in 40 CFR 60.7.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the records required in Section 2.1 B. 3. d. ii. above are not kept or nitrogen oxide emissions are not monitored using CEMs as required in Section 2.1 B. 3. d. ii. above or the nitrogen oxide emission rate of combustion turbine is above the limit given in Section 2.1 B. 3. b. above.

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

- e. In addition to any other reporting requirements to the EPA, the Permittee is required to REPORT the Regional Supervisor, DAQ, in WRITING, of the following:
  - i. The date construction (40 CFR 60.7) or reconstruction (40 CFR 60.15) of an affected facility is commenced, postmarked no later than 30 days after such date;
  - ii. The actual date of initial start-up of an affected facility, postmarked within 15 days after such date;
  - iii. Periods of excess emissions for sulfur dioxide, in accordance with 40 CFR 60.7(c), for any daily period during which the sulfur content of the fuel being fired exceeds 0.8 percent by weight, within 30 days after each calendar year quarter for the previous 3-month period;
  - iv. 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 within 30 days after each calendar year quarter for the previous 3-month period. Written reports shall include information required in 40 CFR 60.7(c) and (d). This report shall also contain a clearly calculated corresponding emission limitation (STD) as specified in 40 CFR 60.332; and
  - v. 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, within 30 days after each calendar year quarter for the previous 3-month period.

**4. 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 for each simple-cycle combustion turbine (ID No. Unit 4 and Unit 5) shall not exceed:

| AFFECTED SOURCE                                              | POLLUTANT                       | BACT EMISSION LIMITS <sup>a</sup>                                          |                                                                          | BACT CONTROLS                                             |
|--------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------|
|                                                              |                                 | Natural Gas                                                                | No. 2 Fuel Oil                                                           |                                                           |
|                                                              |                                 | lb/mmBtu<br>ppm                                                            | lb/mmBtu<br>ppm                                                          |                                                           |
| combustion turbines (ID Nos. Unit 4 and Unit 5), per turbine | opacity                         | 20%                                                                        | 20%                                                                      | combustion control                                        |
|                                                              | nitrogen oxides                 | During initial BACT testing:                                               | 0.176<br>42 ppmvd <sup>b</sup><br>(24-hour rolling average) <sup>c</sup> | natural gas: dry-low NOx<br><br>fuel oil: water injection |
|                                                              |                                 | 0.039<br>9 ppmvd <sup>b</sup><br>(24-hour rolling average) <sup>c</sup>    |                                                                          |                                                           |
|                                                              |                                 | After initial BACT testing:                                                |                                                                          |                                                           |
|                                                              |                                 | 0.045<br>10.5 ppmvd <sup>b</sup><br>(24-hour rolling average) <sup>c</sup> |                                                                          |                                                           |
|                                                              | sulfur dioxide                  | 0.0006                                                                     | 0.0515                                                                   | 0.05% sulfur fuel oil                                     |
|                                                              | carbon monoxide                 | 0.018<br>9 ppmvd                                                           | 0.037<br>20 ppmvd                                                        | combustion control                                        |
|                                                              | VOCs                            | 0.0015<br>1.4 ppmvwd                                                       | 0.004<br>3.5 ppmvw                                                       | combustion control                                        |
|                                                              | particulates/PM-10 (front half) | 0.0055                                                                     | 0.009                                                                    | combustion control                                        |
| sulfuric acid                                                |                                 | fuel oil sulfur content                                                    | 0.05% sulfur fuel oil                                                    |                                                           |

<sup>a</sup> BACT limits shall apply at all times except as provided under Section 2.1 B. 4. a. iii. BACT limits for No. 2 fuel oil firing are applicable to Unit 4 only and are not applicable to Unit 5.

<sup>b</sup> ppmvd = parts per million by volume on a dry basis at 15% O<sub>2</sub>.

<sup>c</sup> 24-hour rolling average is calculated using only actual operating hours (periods of zero emissions when not operating are not included).

- ii. Short term maximum emission rates for each combined-cycle combustion turbine (ID No. Unit 4 and Unit 5) shall not exceed:

| AFFECTED SOURCE                                           | POLLUTANT                              | BACT EMISSION LIMITS <sup>a</sup>                                           |                                                                            | BACT CONTROLS                                                             |
|-----------------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------------|
|                                                           |                                        | Natural Gas                                                                 | No. 2 Fuel Oil                                                             |                                                                           |
|                                                           |                                        | lb/mmBtu<br>ppm                                                             | lb/mmBtu<br>ppm                                                            |                                                                           |
| combustion turbines (ID Nos. Unit 4 and Unit 5), per unit | opacity                                | 20%                                                                         | 20%                                                                        | combustion control                                                        |
|                                                           | nitrogen oxides                        | 0.010<br>2.5 ppmvd <sup>b</sup><br>(24-hour rolling average) <sup>c,d</sup> | 0.054<br>13 ppmvd <sup>b</sup><br>(24-hour rolling average) <sup>c,e</sup> | natural gas: dry-low NOx and SCR<br><br>fuel oil: water injection and SCR |
|                                                           | sulfur dioxide                         | 0.0006                                                                      | 0.054                                                                      | 0.05% sulfur fuel oil                                                     |
|                                                           | carbon monoxide                        | 0.018<br>9 ppmvd                                                            | 0.037<br>20 ppmvd                                                          | combustion control                                                        |
|                                                           | VOCs                                   | 0.00172<br>1.4 ppmvw                                                        | 0.004<br>3.5 ppmvw                                                         | combustion control                                                        |
|                                                           | particulates/<br>PM-10<br>(front half) | 0.0055                                                                      | 0.009                                                                      | combustion control                                                        |
|                                                           | sulfuric acid                          |                                                                             | fuel oil sulfur content                                                    | 0.05% sulfur fuel oil                                                     |
|                                                           | ammonia                                | 10 ppmvd                                                                    | 10 ppmvd                                                                   |                                                                           |

<sup>a</sup> BACT limits shall apply at all times except as provided under Section 2.1 B. 4. a. ii. BACT limits for No. 2 fuel oil firing are applicable to Unit 4 only and are not applicable to Unit 5.

<sup>b</sup> ppmvd = parts per million by volume on a dry basis at 15% O<sub>2</sub>.

<sup>c</sup> 24-hour rolling average is calculated using only actual operating hours (periods of zero emissions when not operating are not included).

<sup>d</sup> The NO<sub>x</sub> emission limit is 2.5 ppmvd for the first 500 hours of operation (on a 24-hour rolling average basis). After 500 hours, the emission limit is 3.5 ppmvd (on a 24-hour rolling average basis). However, the ammonia injection rate shall not exceed that rate established per Section 2.1 B. 4. j. i. at each load point. Three months after the 24-hour rolling average exceeds 3.3 ppmvd three times within any rolling 50 hour period, the emission limit changes to 2.5 ppmvd for the next 500 hours of operation. However, the Permittee will not be deemed to be out of compliance until the 24-hour rolling average exceeds 3.5 ppmvd during this three-month period. After any 500 hour period where the 2.5 ppmvd is maintained without exceedance of the 3.3 ppmvd trigger level, the limit reverts back to 3.5 ppmvd.

<sup>e</sup> The NO<sub>x</sub> emission limit is 13 ppmvd for the first 500 hours of operation (on a 24-hour rolling average basis). After 500 hours, the emission limit is 18 ppmvd (on a 24-hour rolling average basis). However, the ammonia injection rate shall not exceed that rate established per Section Section 2.1 B. 4. j. i. at each load point. Three months after the 24-hour rolling average exceeds 17 ppmvd three times within any rolling 50 hour period, the emission limit changes to 13 ppmvd for the next 500 hours of operation. However, the Permittee will not be deemed to be out of compliance until the 24-hour rolling average exceeds 18 ppmvd during this three-month period. After any 500 hour period where the 13 ppmvd is maintained without exceedance of the 17 ppmvd trigger level, the limit reverts back to 18 ppmvd.

iii. Emissions resulting from start-up, shutdown or malfunction above those given in Section 2.1. B. 4. a. i. and ii. are permitted provided that optimal operational practices are adhered to and periods of excess emissions are minimized. For the combined-cycle turbines, periods of excess emissions due to start-up and/or shutdown or operation below 50% load shall not exceed six hours in any 24-hour block period

beginning at midnight. Start-up is defined as the period from initial firing to 50% load. Shutdown is defined as the period from 50% load to flame out.

- b. The following emission limits apply in order to demonstrate compliance with the National Ambient Air Quality Standards as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

| AFFECTED SOURCE                                            | POLLUTANT                       | EMISSION LIMIT                |                  |                 |                 |                 |
|------------------------------------------------------------|---------------------------------|-------------------------------|------------------|-----------------|-----------------|-----------------|
|                                                            |                                 | Annual (tons/yr) <sup>a</sup> | per 24-hour (lb) | per 8-hour (lb) | per 3-hour (lb) | per 1-hour (lb) |
| combustion turbines (ID Nos. Unit 1 through Unit 5), total | nitrogen dioxide                | 1224.4                        |                  |                 |                 |                 |
|                                                            | sulfur dioxide                  | 257.3                         | 11,580           |                 | 1447.5          |                 |
|                                                            | carbon monoxide                 |                               |                  | 2680            |                 | 335             |
|                                                            | particulates/PM-10 (front half) | 125.8                         | 2040             |                 |                 |                 |

<sup>a</sup> Tons per rolling consecutive 12-month period. Annual emissions for the combustion turbines are for all five turbines firing fuel oil for 1000 hours per year, three simple-cycle turbines firing natural gas for 1000 hours per year and two combined-cycle turbines firing natural gas for 7760 hours per year, at 100% load.

- c. The combined-cycle turbines (ID Nos. Unit 4 and Unit 5) may be operated in the simple-cycle mode initially before conversion to the combined-cycle mode is completed. After conversion to combined-cycle is completed and the turbines operate in the combined-cycle mode, the turbines shall no longer be operated in the simple-cycle mode.

**Testing** [15A NCAC 2D .0501]

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.4. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- e. The maximum annual hours of operation for combustion turbine (ID No. Unit 4) shall not exceed 1000 full load equivalent hours per rolling consecutive 12-month period when firing No. 2 fuel oil.
- f. The maximum annual hours of operation for each simple-cycle combustion turbine (ID Nos. Unit 4 and Unit 5) shall not exceed 2000 full load equivalent hours per rolling consecutive 12-month period.
- g. The Permittee shall record and maintain records of the actual number of hours of operation, and the amounts of each fuel burned during each day for each combustion turbine (ID Nos. Unit 4 and Unit 5) in accordance with 40 CFR Part 75. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the above records are not maintained.
- h. Only natural gas shall be burned during summer months (April through October) except during operational curtailment of interruptible transportation, Force Majeure events, malfunctions, functional equipment testing (periods not to exceed one hour per week), and during compliance testing.
- i. No more than three combustion turbines shall burn No. 2 fuel oil simultaneously.
- j. The sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent sulfur by weight.
- k. Water injection shall be used when the combustion turbines are firing No. 2 fuel oil only.
- l. For each simple-cycle combustion turbine (ID Nos. Unit 4 and Unit 5), the Permittee shall monitor operations to demonstrate compliance with the BACT emission limits as follows:
- i. Determine the sulfur content of the fuel being fired in each combustion turbine in accordance with Section 2.1 B. 3. d. i.
  - ii. Determine nitrogen oxide emissions as specified in 40 CFR Part 75 Appendix E. At least 45 days prior to performing any required initial performance testing required by the procedure in Appendix E, the

Permittee must submit a testing protocol to the Regional Supervisor, Division of Air Quality for review and approval prior to performing such tests.

Note: If Appendix E is being used in lieu of a NO<sub>x</sub> CEM under the Acid Rain Program, then certification to use Appendix E shall be completed no later than the applicable deadline specified in 40 CFR Part 75.4 pursuant to the requirements in §75.20.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the sulfur content of the fuel is not monitored or the nitrogen oxide emissions are not monitored.

- m. For each combined-cycle combustion turbine (ID Nos. Unit 4 and Unit 5) compliance with the BACT NO<sub>x</sub> and ammonia limits shall be demonstrated as follows for the selective catalytic reduction (SCR) system:
  - i. The permittee shall install and operate an ammonia flow meter to measure and record the ammonia injection rate to the SCR system. The ammonia injection rates corresponding to a maximum ammonia slip of 10 ppmvd and necessary to comply with the BACT NO<sub>x</sub> limits shall be established (and made available to the Division of Air Quality upon request) during the initial performance tests when firing No. 2 fuel oil and natural gas at 50, 70, 85 and 100 percent of peak load.
  - ii. The SCR shall operate at all times that the turbine is operating except during turbine start-up and shutdown periods to the extent recommended by the manufacturer and operated in a manner so as to minimize ammonia slip.
  - iii. During NO<sub>x</sub> CEM downtimes or malfunctions, the permittee shall operate at 100% of the ammonia injection rate determined during the performance test as specified in Section 2.1 B. 3. j. i. for each load range.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the nitrogen oxide emissions are not monitored using CEMs, as required in Section 2.1 B. 3. e. ii. above or the ammonia injection rate to the SCR system is not continuously measured and recorded, as required in Section 2.1 B. 4. l. i. above or nitrogen oxide or ammonia emission rate of combustion turbine is above the limit given in Section 2.1 B. 4. a. i. above.

- n. Under the provisions of North Carolina General Statute 143-215.108, for each simple/combined-cycle combustion turbine (ID Nos. Unit 4 and Unit 5), the Permittee shall monitor operations to demonstrate compliance with the BACT emission limits as follows:
  - i. Determine the sulfur content of the fuel being fired in each combustion turbine in accordance with Section 2.1 B. 3. d. i.
  - ii. Determine nitrogen oxide emissions as specified in Section 2.1 B. 3. e. ii.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the records required in Section 2.1 B. 3. d. ii. above are not kept or the nitrogen oxide emission rate of combustion turbine is above the limit given in Section 2.1 B. 4. b. above.

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

- o. The Permittee shall submit in writing 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:
  - i. periods of excess emissions for sulfur dioxide for any daily period during which the sulfur content of the No. 2 fuel oil being fired exceeds 0.05 percent by weight, within 30 days after each calendar year quarter for the previous 3-month period; and
  - ii. periods of excess emissions for nitrogen oxides for any 24-hour rolling averaging period during which the concentrations exceed 0.045 lb/mmBtu (10.5 ppmvd) when firing natural gas and 0.176 lb/mmBtu (42 ppmvd) when firing No. 2 fuel oil, as determined by the procedure specified in 40 CFR Part 75 Appendix E, postmarked within 30 days after each calendar year quarter for the previous 3-month period. The 24-hour rolling average is calculated using only actual operating hours (periods of zero emissions when not operating are not included). A valid hourly emission rate shall be calculated for each hour in which at least two NO<sub>x</sub> concentrations are obtained at loads above 50 percent at least 15 minutes apart.

**5. 15A NCAC 2D .1417: EMISSION ALLOCATIONS FOR LARGE COMBUSTION SOURCES**

- a. Before the EPA promulgation of revisions after November 1, 2000, to 40 CFR Part 51, Subpart G, revising the nitrogen oxide budget for North Carolina, the following limits apply beginning May 31 through September 30, 2004 and May 1 through September 30, 2005 and each year thereafter until revised according to 15A NCAC 2D .1420, except as allowed by 15A NCAC 2D .1419:

| SOURCE                                | NO <sub>x</sub> EMISSION ALLOCATIONS<br>(tons/ozone season) |      |                |
|---------------------------------------|-------------------------------------------------------------|------|----------------|
|                                       | 2004                                                        | 2005 | 2006 and later |
| Combustion Turbine<br>(ID No. Unit 4) | 21                                                          | 27   | 27             |
| Combustion Turbine<br>(ID No. Unit 5) | 22                                                          | 27   | 27             |

- b. After the EPA promulgates revisions after November 1, 2000, to 40 CFR Part 51, Subpart G, revising the nitrogen oxide budget for North Carolina, the following limits apply beginning May 31 through September 30, 2004 and May 1 through September 30, 2005 and each year thereafter until revised according to 15A NCAC 2D .1420, except as allowed by 15A NCAC 2D .1419:

| SOURCE                                | NO <sub>x</sub> EMISSION ALLOCATIONS<br>(tons/ozone season) |      |                |
|---------------------------------------|-------------------------------------------------------------|------|----------------|
|                                       | 2004                                                        | 2005 | 2006 and later |
| Combustion Turbine<br>(ID No. Unit 4) | 21                                                          | 27   | 27             |
| Combustion Turbine<br>(ID No. Unit 5) | 22                                                          | 28   | 28             |

- c. Sources (ID Nos. Unit 4 and Unit 5) shall comply with the requirements of 15A NCAC 2D .1417 using the nitrogen oxide budget trading program set out in 15A NCAC 2D .1419.

- d. **Monitoring/Recordkeeping/Reporting** [15A NCAC 2Q .0508(f)]  
The Permittee shall assure compliance with 15A NCAC 2D .1417 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 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 .1417.

**C. Two No. 2 fuel oil, fixed-roof storage tanks with atmospheric vents (not to exceed 3.6 million gallons capacity each, actual capacity 3.1 million gallons each, ID Nos. TK-1 and TK-2)**

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

| Regulated Pollutant | Limits/Standards | Applicable Regulation                         |
|---------------------|------------------|-----------------------------------------------|
| None                | recordkeeping    | 15A NCAC 2D .0524 (40 CFR Part 60 Subpart Kb) |

**1. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60 SUBPART Kb)**

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

The Permittee shall comply with the recordkeeping requirements of this standard by maintaining 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. These sources are exempt from the General Provisions (40 CFR Part 60, Subpart A) and from any other provisions of Subpart Kb. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

**D. One cooling tower with drift eliminators (ID No. Tower 1)**

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  | $E = 4.10P^{0.67}$ for $P \leq 30$ tons per hour<br>$E = 55.0P^{0.11} - 40$ for $P > 30$ tons per hour<br><br>where<br>E = allowable emission rate in pounds per hour<br>P = process weight in tons per hour | 15A NCAC 2D .0515     |
| particulates/PM-10  | as defined in specific conditions                                                                                                                                                                            | 15A NCAC 2D .0530     |

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

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

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

or

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

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

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

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

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

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

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

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

- a. The following emission limits apply in order to demonstrate compliance with the National Ambient Air Quality Standards as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

| Affected Source                | Pollutant         | Emission Limit                 |                  |
|--------------------------------|-------------------|--------------------------------|------------------|
|                                |                   | Annual<br>tons/yr <sup>a</sup> | Daily<br>lbs/day |
| Cooling Tower (ID No. Tower 1) | particulate/PM-10 | 6.0                            | 33.12            |

<sup>a</sup> Tons per rolling consecutive 12-month period.

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

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

**E. One natural gas fired auxiliary boiler (16.74 million Btu per hour heat input rate, ID No. ES-6)**

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  | 0.53 pound 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   | <p>State-only requirement<br/>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</p> <p>Federal-only requirement<br/>20 percent opacity (except during startups) 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</p> | <p>15A NCAC 2D .0521</p> <p>40 CFR 52 Subpart II</p> |
| None                | recordkeeping                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 15A NCAC 2D .0524<br>(40 CFR 60 Subpart Dc)          |

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

- a. Emissions of particulate matter from the combustion of natural gas, that are discharged from this source into the atmosphere shall not exceed 0.53 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 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 .0503.

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

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas in this source.

**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]

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

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

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

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from natural gas for this source.

**State-Only Requirement**

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

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

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in this source.

**Federal-Only Requirement**

**4. 40 CFR 52 SUBPART II: NORTH CAROLINA STATE IMPLEMENTATION PLAN**

- a. Visible emissions from these sources shall not be more than **20 percent opacity** (except during startups) 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.

**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 E.4.a. above, the Permittee shall be deemed in noncompliance with 40 CFR 52 Subpart II.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from this source.

**5. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60 SUBPART Dc)**

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

- a. The Permittee shall record and maintain records of the amounts each fuel combusted during each month. Such records shall be maintained for a period of two years following the date of such record. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

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

- A. Three natural gas/No. 2 fuel oil-fired simple-cycle internal combustion turbines (1,628 million Btu per hour heat input rate each, when firing natural gas, 1,875 million Btu per hour heat input rate each, when firing No. 2 fuel oil), each equipped with dual fuel dry Low-NO<sub>x</sub> combustors and having water injection capability for NO<sub>x</sub> control (ID Nos. Unit 1, Unit 2, and Unit 3)**

**One natural gas/No. 2 fuel oil-fired simple-cycle/combined-cycle internal combustion turbine (1,628 million Btu per hour heat input rate, when firing natural gas, 1,875 million Btu per hour heat input rate, when firing No. 2 fuel oil), equipped with a heat recovery steam generator and a steam turbine, and dual fuel dry Low-NO<sub>x</sub> combustors and having water injection capability for NO<sub>x</sub> control (ID No. Unit 4), and associated SCR (ID No. Unit 4 SCR)**

**One natural gas-fired simple-cycle/combined-cycle internal combustion turbine (1,628 million Btu per hour heat input), equipped with a heat recovery steam generator and a steam turbine, and dual fuel dry Low-NO<sub>x</sub> combustors (ID No. Unit 5), and associated SCR (ID No. Unit 5 SCR)**

- 1. 40 CFR 63.43: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT) DETERMINATIONS FOR CONSTRUCTED AND RECONSTRUCTED MAJOR SOURCES**
- a. As a major source with the potential to emit 10 tons per year of any hazardous air pollutant (HAP), as listed in Section 112(b) of the federal Clean Air Act, or 25 tons per year of any combination of HAP, the Permittee shall apply proper combustion control to comply with the MACT requirements as promulgated in 40 CFR 63.43 "Maximum Achievable Control Technology (MACT) Determinations for Constructed and Reconstructed Major Sources."

State-only requirement

- 2. TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REPORTING REQUIREMENT**
- a. Pursuant to 15A NCAC 2D .1100 "Control of Toxic Air Pollutants," and in accordance with the approved application for an air toxic compliance demonstration, the following permit limits shall not be exceeded:

| <b>Emission Source(s)</b>                              | <b>Toxic Air Pollutant(s)</b> | <b>Emission Limit(s)</b> |
|--------------------------------------------------------|-------------------------------|--------------------------|
| facility-wide total<br>(ID Nos. Unit 1 through Unit 5) | Ammonia                       | 7440 lb/hr               |

**2.3- Phase II Acid Rain Permit Requirements**

**ORIS code: 7826**  
**Effective: January 1, 2006 through December 31, 2010**

**1. 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.

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

|                                |                                                                        | 2006 | 2007 | 2008 | 2009 | 2010 |
|--------------------------------|------------------------------------------------------------------------|------|------|------|------|------|
| <b>Unit 1</b>                  | SO <sub>2</sub> allowances, under Tables 2, 3, or 4 of 40 CFR part 73. | NA*  | NA*  | NA*  | NA*  | NA*  |
| <b>Unit 2</b>                  |                                                                        |      |      |      |      |      |
| <b>Unit 3</b>                  |                                                                        |      |      |      |      |      |
| <b>Unit 4</b>                  |                                                                        |      |      |      |      |      |
| <b>Unit 5</b>                  |                                                                        |      |      |      |      |      |
| <b>Unit 5</b><br>(IC Turbines) | NO <sub>x</sub> limit                                                  | NA** |      |      |      |      |

\* SO<sub>2</sub> allowances are not allocated by U.S. EPA for new units under 40 CFR part 72.

\*\* Does not apply for combustion turbine units.

### 3. Comments, Notes and Justifications

None.

### 4. 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 June 14, 2005

## SECTION 3 - GENERAL CONDITIONS

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

### A. General Provisions [NCGS 143-215 and 15A NCAC 2Q .0508(aa)]

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(aa)]

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)]

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(c)]

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(j)]

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. 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.
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 on the next business day after becoming aware of the deviation. A written report shall be submitted within two business days to the Regional Supervisor and shall include the probable cause of such deviation and any corrective actions or preventative actions taken. All reports of deviations from permit requirements shall be certified by a responsible official.

**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 of 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 .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(k)]**

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(n)]**

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)]

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(t)]

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(m)]

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(r) 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(o)]

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(n)]

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)(4)]

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

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 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(g)]

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(h)]

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(aa)]

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.

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 certification of the test results by sampling team leader and facility representative;
  - b. 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);
  - c. 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;
  - d. all field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
  - e. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
  - f. 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. 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.

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

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.

## PART II

The Permittee is hereby authorized to construct and operate air emission source(s) and associated air pollution control device(s) and appurtenances listed in Section 1, Part II of this permit, in accordance with the completed Air Quality Permit Application received March 26, 2002 including all plans, specifications, previous applications, and other supporting data, all of which are filed with the DAQ and are incorporated in Part II of this Air Quality Permit.

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

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

| Emission Source ID No.           | Emission Source Description                                                                                                                                                                                                                                                                                                                                                                                           | Control Device ID No. | Control Device Description          |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------|
| Unit 4<br>PSD<br>NSPS Subpart GG | one natural gas/No. 2 fuel oil-fired simple-cycle/combined-cycle internal combustion turbine (1,628 million Btu per hour heat input rate, when firing natural gas, 1,875 million Btu per hour heat input rate, when firing No. 2 fuel oil), equipped with a heat recovery steam generator and a steam turbine, and dual fuel dry Low-NOx combustors and having water injection capability for NO <sub>x</sub> control | Unit 4 SCR            | selective catalytic reduction (SCR) |
| Unit 5<br>PSD<br>NSPS Subpart GG | one natural gas-fired simple-cycle/combined-cycle internal combustion turbine (1,628 million Btu per hour heat input), equipped with a heat recovery steam generator and a steam turbine, and dual fuel dry Low-NOx combustors                                                                                                                                                                                        | Unit 5 SCR            | selective catalytic reduction (SCR) |
| Tower 1<br>PSD                   | one cooling tower with drift eliminators<br>(123,220 gallons per minute recirculating water flow rate)                                                                                                                                                                                                                                                                                                                | N/A                   | No Controls                         |
| ES-6<br>NSPS Subpart Dc          | one natural gas fired auxiliary boiler<br>(16.74 million Btu per hour heat input rate)                                                                                                                                                                                                                                                                                                                                | N/A                   | No Controls                         |

### 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 authorized to construct and operate above must be operated and maintained in accordance with the provisions contained herein. The Permittee shall comply with applicable Environmental Management Commission Regulations, including Title 15A NCAC, Subchapter 2D .0503, .0515, .0516, .0521, .0524 (40 CFR 60, Subpart Dc and Subpart GG), .0530, .0535, .1104 and .1112, Subchapter 2Q .0400 (40 CFR 72), and 40 CFR 52 Subpart II.

2. In addition to any other reporting requirements to the EPA, the Permittee is required to REPORT the Regional Supervisor, DAQ, in WRITING, of the following, for the simple/combined cycle turbines (ID Nos. Unit 4 and Unit 5) and boiler (ID No. ES-6):
  - a. The date construction (40 CFR 60.7) or reconstruction (40 CFR 60.15) of an affected facility is commenced, postmarked no later than 30 days after such date;
  - b. The actual date of initial start-up of an affected facility, postmarked within 15 days after such date.
3. For simple/combined cycle turbines (ID Nos. Unit 4 and Unit 5), 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, including Subpart A "General Provisions." [15A NCAC 2D .0524]
  - a. NSPS Emissions Limitations - As required by 15A NCAC 2D .0524, the following permit limits shall not be exceeded:

| Affected Facility                                                  | Pollutant       | Emission Limit                                                         |
|--------------------------------------------------------------------|-----------------|------------------------------------------------------------------------|
| combustion turbines<br>(ID Nos. Unit 1 through Unit 4, and Unit 6) | nitrogen oxides | STD* =<br>0.0075 x [(14.4) / Y**] +<br>F***                            |
|                                                                    | sulfur dioxide  | 0.015 percent by volume****<br>or<br>0.8 percent weight sulfur in fuel |

\* STD = allowable nitrogen oxides emissions in percent by volume at 15 percent O<sub>2</sub> 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<sub>x</sub> emission allowance for fuel bound nitrogen as defined in 40CFR60.332(a)(3).  
 \*\*\*\* allowable sulfur dioxide emissions at 15 percent O<sub>2</sub> on a dry basis.

- b. The Permittee shall conduct the performance tests required in 40 CFR 60.8 for nitrogen oxides when firing No. 2 fuel oil and natural gas, as specified in 40 CFR 60.335 at 50, 70, 85 and 100 percent of peak load, utilizing EPA reference test Method 20, as in effect on the date of permit issuance. Details of the emissions testing and reporting requirements can be found in Section 3 - General Condition JJ of Part I.
4. The following Best Available Control Technology (BACT) limits shall not be exceeded for the simple/combined cycle turbines (ID Nos. Unit 4 and Unit 5):
  - a. Short term maximum emission rates for each simple-cycle combustion turbine (ID No. Unit 4 and Unit 5) shall not exceed:

| AFFECTED SOURCE                                         | POLLUTANT | BACT EMISSION LIMITS <sup>a</sup> |                 | BACT CONTROLS      |
|---------------------------------------------------------|-----------|-----------------------------------|-----------------|--------------------|
|                                                         |           | Natural Gas                       | No. 2 Fuel Oil  |                    |
|                                                         |           | lb/mmBtu<br>ppm                   | lb/mmBtu<br>ppm |                    |
| combustion turbines<br>(ID Nos. Unit 4 and Unit 5), per | opacity   | 20%                               | 20%             | combustion control |

|               |                                 |                                                                            |                                                                          |                                                           |
|---------------|---------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------|
| turbine       | nitrogen oxides                 | During initial BACT testing:                                               | 0.176<br>42 ppmvd <sup>b</sup><br>(24-hour rolling average) <sup>c</sup> | natural gas: dry-low NOx<br><br>fuel oil: water injection |
|               |                                 | 0.039<br>9 ppmvd <sup>b</sup><br>(24-hour rolling average) <sup>c</sup>    |                                                                          |                                                           |
|               |                                 | After initial BACT testing:                                                |                                                                          |                                                           |
|               |                                 | 0.045<br>10.5 ppmvd <sup>b</sup><br>(24-hour rolling average) <sup>c</sup> |                                                                          |                                                           |
|               | sulfur dioxide                  | 0.0006                                                                     | 0.0515                                                                   | 0.05% sulfur fuel oil                                     |
|               | carbon monoxide                 | 0.018<br>9 ppmvd                                                           | 0.037<br>20 ppmvd                                                        | combustion control                                        |
|               | VOCs                            | 0.0015<br>1.4 ppmvwd                                                       | 0.004<br>3.5 ppmvw                                                       | combustion control                                        |
|               | particulates/PM-10 (front half) | 0.0055                                                                     | 0.009                                                                    | combustion control                                        |
| sulfuric acid |                                 | fuel oil sulfur content                                                    | 0.05% sulfur fuel oil                                                    |                                                           |

<sup>a</sup> BACT limits shall apply at all times except as provided under Section 4. c. BACT limits for No. 2 fuel oil firing are applicable to Unit 4 only and are not applicable to Unit 5.

<sup>b</sup> ppmvd = parts per million by volume on a dry basis at 15% O<sub>2</sub>.

<sup>c</sup> 24-hour rolling average is calculated using only actual operating hours (periods of zero emissions when not operating are not included).

b. Short term maximum emission rates for each combined-cycle combustion turbine (ID No. Unit 4 and Unit 5) shall not exceed:

| AFFECTED SOURCE                                           | POLLUTANT       | BACT EMISSION LIMITS <sup>a</sup>                                           |                                                                            | BACT CONTROLS                                                             |
|-----------------------------------------------------------|-----------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------------|
|                                                           |                 | Natural Gas                                                                 | No. 2 Fuel Oil                                                             |                                                                           |
|                                                           |                 | lb/mmBtu<br>ppm                                                             | lb/mmBtu<br>ppm                                                            |                                                                           |
| combustion turbines (ID Nos. Unit 4 and Unit 5), per unit | opacity         | 20%                                                                         | 20%                                                                        | combustion control                                                        |
|                                                           | nitrogen oxides | 0.010<br>2.5 ppmvd <sup>b</sup><br>(24-hour rolling average) <sup>c,d</sup> | 0.054<br>13 ppmvd <sup>b</sup><br>(24-hour rolling average) <sup>c,e</sup> | natural gas: dry-low NOx and SCR<br><br>fuel oil: water injection and SCR |

|                                        |                      |                         |                       |
|----------------------------------------|----------------------|-------------------------|-----------------------|
| sulfur dioxide                         | 0.0006               | 0.054                   | 0.05% sulfur fuel oil |
| carbon monoxide                        | 0.018<br>9 ppmvd     | 0.037<br>20 ppmvd       | combustion control    |
| VOCs                                   | 0.00172<br>1.4 ppmvw | 0.004<br>3.5 ppmvw      | combustion control    |
| particulates/<br>PM-10<br>(front half) | 0.0055               | 0.009                   | combustion control    |
| sulfuric acid                          |                      | fuel oil sulfur content | 0.05% sulfur fuel oil |
| ammonia                                | 10 ppmvd             | 10 ppmvd                |                       |

- <sup>a</sup> BACT limits shall apply at all times except as provided under Section 4. c. BACT limits for No. 2 fuel oil firing are applicable to Unit 4 only and are not applicable to Unit 5.
- <sup>b</sup> ppmvd = parts per million by volume on a dry basis at 15% O<sub>2</sub>.
- <sup>c</sup> 24-hour rolling average is calculated using only actual operating hours (periods of zero emissions when not operating are not included).
- <sup>d</sup> The NO<sub>x</sub> emission limit is 2.5 ppmvd for the first 500 hours of operation (on a 24-hour rolling average basis). After 500 hours, the emission limit is 3.5 ppmvd (on a 24-hour rolling average basis). However, the ammonia injection rate shall not exceed that rate established per Section 2.1 B. 4. j. i. at each load point. Three months after the 24-hour rolling average exceeds 3.3 ppmvd three times within any rolling 50 hour period, the emission limit changes to 2.5 ppmvd for the next 500 hours of operation. However, the Permittee will not be deemed to be out of compliance until the 24-hour rolling average exceeds 3.5 ppmvd during this three-month period. After any 500 hour period where the 2.5 ppmvd is maintained without exceedance of the 3.3 ppmvd trigger level, the limit reverts back to 3.5 ppmvd.
- <sup>e</sup> The NO<sub>x</sub> emission limit is 13 ppmvd for the first 500 hours of operation (on a 24-hour rolling average basis). After 500 hours, the emission limit is 18 ppmvd (on a 24-hour rolling average basis). However, the ammonia injection rate shall not exceed that rate established per Section 2.1 B. 4. j. i. at each load point. Three months after the 24-hour rolling average exceeds 17 ppmvd three times within any rolling 50 hour period, the emission limit changes to 13 ppmvd for the next 500 hours of operation. However, the Permittee will not be deemed to be out of compliance until the 24-hour rolling average exceeds 18 ppmvd during this three-month period. After any 500 hour period where the 13 ppmvd is maintained without exceedance of the 17 ppmvd trigger level, the limit reverts back to 18 ppmvd.
- c. Emissions resulting from start-up, shutdown or malfunction above those given in Section 4.a and b. are permitted provided that optimal operational practices are adhered to and periods of excess emissions are minimized. For the combined-cycle turbines, periods of excess emissions due to start-up and shutdown or operation below 50% load shall not exceed six hours in any 24-hour period, including up to four hours of excess emissions during start-up and up to two hours of excess emissions during shutdown. Start-up is defined as the period from initial firing to 50% load. Shutdown is defined as the period from 50% load to flame out.
- d. The following emission limits apply in order to demonstrate compliance with the National Ambient Air Quality Standards as required by 15A NCAC 2D .0530; 40 CFR 51.166(k):

| AFFECTED SOURCE                                                  | POLLUTANT                          | EMISSION LIMIT                   |                        |                       |                       |                       |
|------------------------------------------------------------------|------------------------------------|----------------------------------|------------------------|-----------------------|-----------------------|-----------------------|
|                                                                  |                                    | Annual<br>(tons/yr) <sup>a</sup> | per<br>24-hour<br>(lb) | per<br>8-hour<br>(lb) | per<br>3-hour<br>(lb) | per<br>1-hour<br>(lb) |
| combustion turbines<br>(ID Nos. Unit 1 through<br>Unit 5), total | nitrogen dioxide                   | 1224.4                           |                        |                       |                       |                       |
|                                                                  | sulfur dioxide                     | 257.3                            | 11,580                 |                       | 1447.5                |                       |
|                                                                  | carbon monoxide                    |                                  |                        | 2680                  |                       | 335                   |
|                                                                  | particulates/PM-10<br>(front half) | 125.8                            | 2040                   |                       |                       |                       |

- <sup>a</sup> Tons per rolling consecutive 12-month period. Annual emissions for the combustion turbines are for all five turbines firing fuel oil for 1000 hours per year, three simple-cycle turbines firing natural gas for 1000 hours per year and two combined-cycle turbines firing natural gas for 7760 hours per year, at 100% load.
5. The combined-cycle turbines (ID Nos. Unit 4 and Unit 5) may be operated in the simple-cycle mode initially before conversion to the combined-cycle mode is completed. After conversion to combined-cycle is completed and the turbines operate in the combined-cycle mode, the turbines shall no longer be operated in the simple-cycle mode.
6. Under the provisions of North Carolina General Statute 143-215.108, the Permittee shall demonstrate compliance with the BACT emission limits by testing the combined-cycle combustion turbine (ID No. Unit 4) to become operational at 50, 70, 85 and 100 percent of peak load (all loads shall be corrected to ISO standard ambient conditions) for No. 2 fuel oil and natural gas, utilizing EPA reference methods, as in effect on the date of permit issuance, contained in 40 CFR 60, Appendix A, OR in accordance with a testing protocol (using testing protocol submittal form) approved by the Division of Air Quality, as follows:

**No. 2 Fuel Oil**

| <u>POLLUTANT</u>             | <u>TEST METHOD</u>                 |
|------------------------------|------------------------------------|
| nitrogen oxides <sup>1</sup> | Method 20                          |
| sulfur dioxide               | Method 20 or Method 8 <sup>2</sup> |
| carbon monoxide              | Method 10                          |
| volatile organic compounds   | Method 25A or Method 18            |
| ammonia                      | Method CTM-027                     |

**Natural Gas**

| <u>POLLUTANT</u>             | <u>TEST METHOD</u>      |
|------------------------------|-------------------------|
| nitrogen oxides <sup>1</sup> | Method 20               |
| carbon monoxide              | Method 10               |
| volatile organic compounds   | Method 25A or Method 18 |
| ammonia                      | Method CTM-027          |

7. NOTIFICATION REQUIREMENT - This permit may be revoked unless the combustion turbines (ID Nos. Unit 4 and Unit 5), cooling tower (ID No. Tower 1), auxiliary boiler (ID No. ES-6), and appurtenances 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, Division of Air Quality. Any existing equipment being replaced is permitted to operate in compliance until the replacement equipment is operational.
8. If construction does not commence on the Prevention of Significant Deterioration (PSD) affected facilities (ID Nos. Unit 4 and Unit 5) within 18 months after the effective date of this Permit, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time, as determined by the Director, this permit may be revoked.
9. NOTIFICATION REQUIREMENT - As required by 15A NCAC 2D .0535, or for sources applicable to 15A NCAC 2D .0524 or .1110, when sulfur dioxide, nitrogen dioxide, visible, odorous, and/or particulate emissions exceed Environmental Management Regulations for more than four hours, the Regional Supervisor, Division of Air Quality, Mooresville Region, (704) 663-1699, shall be notified as promptly as possible, but in no case later than 24 hours or on the next working day of becoming aware of the

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<sup>1</sup>Nitrogen oxides testing may be performed at a single operating load for the combined-cycle combustion turbine (ID Nos. Unit 4) where CEMS are used to monitor nitrogen oxides emissions.

<sup>2</sup>As an alternate to EPA reference test Method 8 or Method 20, the Permittee may demonstrate compliance with the sulfur dioxide limit by fuel analysis in accordance with a testing protocol approved by the Division of Air Quality.

occurrence. Such notice shall specify the facility name and location, the nature and cause of the excess emissions, the time when first observed, the expected duration, and the estimated rate of emissions. This reporting requirement does not allow the operation of the facility in excess of Environmental Management Commission Regulations.

### **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 operating 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 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, (including monitoring and air pollution control ), 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                                                      |