

# DRAFT

Date, 2006

Mr. Ruffin Shackelford  
Plant Manager  
Primary Energy of North Carolina - Roxboro  
P.O. Box 1153  
Roxboro, North Carolina 27573

Dear Mr. Shackelford:

SUBJECT:     **Air Quality Permit No. 05856T08**  
              **Facility ID: 7300056**  
              **Primary Energy of North Carolina - Roxboro**  
              **Roxboro, North Carolina**  
              **Person County**  
              **Fee Class: Title V**

In accordance with your completed Air Quality Permit Application for renewal of your Title V permit received July 21, 2005 (**7300056.05A**) and for an ownership change received September 7, 2005 (**7300056.05B**) consolidated into the renewal application, we are forwarding herewith Air Quality Permit No. **05856T08** to **Primary Energy of North Carolina - Roxboro**, 331 Allie Clay Road, Roxboro, North Carolina, authorizing the operation, as outlined in Part I and the construction, 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 conditions of the attached permit that are applicable to that particular emission source.

Mr. Ruffin Shackelford  
date, 2006  
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If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with **both** the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 **and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641**. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. **Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing.** Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding **30 days after issuance**.

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

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

This Air Quality Permit shall be effective from **date, 2006** until **date, 2011**, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Mark J. Cuilla, E.I.T., at (919) 733-1499.

Sincerely yours,

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

Enclosure

cc: Gregg Worley, EPA Region 4 with review  
Raleigh Regional Office  
Central Files

# ATTACHMENT

## Insignificant Activities under 15A NCAC 2Q .0503(8) under Permit No. **05856T08**

Emission Source ID	Emission Source Description
<b>IES1</b>	Diesel fired 340 hp emergency fire pump
<b>IES2</b>	Diesel fuel oil storage tank
<b>IES3</b>	Fire pump fuel oil storage tank
<b>IES4</b>	250 gallon gasoline storage tank
<b>IES5</b>	Solvent parts cleaner
<b>IES6</b>	Turbine lube oil tank vent
<b>IES7</b>	Wood unloading, storage, and transfer operations
<b>IES8</b>	Tire shredder
<b>IES9</b>	Cooling towers
<b>IES10</b>	Paved haul roads

## ATTACHMENT

The following table lists all modifications associated with this permit action:

Page(s)	Section	Description of Change(s)
Attachment	Insignificant Activities	-added ID Nos. per ESM -associated insignificant activity (paved haul roads)
Cover	-	-updated permit revision numbers and all dates -changed facility name and address per application request
All	Header	-amended permit revision number
3	Equipment Table	-modified boiler description to include "watertube design" -added MACT notation to applicable equipment
4	2.1 A (title)	-modified boiler description to include "watertube design"
4-5	2.1 A (table)	-corrected rule citation for 2Q .0317 -added rule citation for 2D .0614 and 2D .1111 -added emission limit compliance certification asterisked language
5	2.1 A.1.a 2.1 A.1.c 2.1 A.1.d	-added ID Nos. -updated shell language -updated shell language
6	2.1 A.2.b 2.1 A.2.c 2.1 A.2.l	-added ID Nos. -added ID Nos. -amended language per Permittee
7	2.1 A.3.g 2.1 A.3.h 2.1 A.3.i	-added ID Nos. -added ID Nos. -updated shell language
8	2.1 A.3.l 2.1 A.3.n 2.1 A.3.o 2.1 A.3.p 2.1 A.4.f 2.1 A.4.i	-added ID Nos. -updated shell language -updated shell language -updated shell language -added ID Nos. -corrected cross reference
9	2.1 A.5 2.1 A.5.e 2.1 A.5.f	-corrected rule citation for 2Q .0317 -corrected cross reference -modified testing from annually to once per permit term
10	2.1 A.5.i.iii 2.1 A.6.a	-corrected cross reference -added ID Nos..
11	2.1 A.6.b 2.1 A.6.c 2.1 A.6.d 2.1 A.6.e 2.1 A.6.f 2.1 A.6.g 2.1 A.6.h 2.1 A.6.i	-added ID Nos -added ID Nos. -corrected Regional Office name -added ID Nos. -added ID Nos. -added ID Nos. -added ID Nos. -added ID Nos.
12	2.1 A.6.j 2.1 A.6.l 2.1 A.6.p 2.1 A.7.a	-added ID Nos. -added recordkeeping requirements -added ID Nos. -amended language to remove old dated emission limits that no longer apply
13-15	2.1 A.8	-added CAM requirements
15	2.1 A.9 2.1 B	-added MACT requirements -corrected equipment ID Nos.
16	2.1 B.1.c 2.1 B.1.d 2.1 B.1.e 2.1 B.2.d	-added ID Nos. and updated shell language -updated shell language -updated shell language -added ID Nos. and updated shell language
17	2.1 B.2.e 2.1 B.2.g 2.1 C 2.1 C.1.c	-updated shell language -updated shell language -corrected equipment description -added ID Nos. and updated shell language

Page(s)	Section	Description of Change(s)
18	2.1 C.1.d 2.1 C.1.e 2.1 C.2.a 2.1 C.2.b 2.1 C.2.d 2.1 C.2.e	-updated shell language -updated shell language -added ID Nos. and added "as needed" per Regional Office request -added ID Nos. and added "as needed" per Regional Office request -added ID Nos. -added ID Nos.
19	2.1 C.2.f	-updated shell language
19-27	General Conditions	-updated shell conditions



Division of Air Quality

## AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
05856T08	05856T07	date, 2006	date, 2011

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:** **Primary Energy of North Carolina - Roxboro**

**Facility ID:** 7300056

**Facility Site Location:** 331 Allie Clay Road  
**City, County, State, Zip:** Roxboro, Person County, North Carolina 27573  
**Mailing Address:** P.O. Box 1153  
**City, State, Zip:** [Roxboro, North Carolina 27573](#)

**Application Number:** **7300056.05A and 7300056.05B**  
**Complete Application Date:** **July 21, 2005 and September 7, 2005**  
**Renewal Application Due Date:** **date nine months prior to expiration of permit**  
**Primary SIC Codes:** 4911

**Division of Air Quality,**  
**Regional Office Address:** **Raleigh Regional Office**  
**3800 Barrett Drive**  
**Raleigh, North Carolina 27609**

Permit issued this the xxth day of xxxx, 2006

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

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(Including specific requirements, testing, monitoring, record keeping, and reporting requirements)

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

**PART II -**

**This permit does not include a Part II.**

# 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.

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

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

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

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-1 (PSD; PSD Avoidance; NSPS, Subpart Db, MACT, Subpart DDDDD)	<p>One electricity generating unit consisting of:</p> <p>-Three watertube design coal/natural gas/No. 2 and No. 4 fuel oil/tire derived fuel/wood**/pelletized paper fuel/flyash briquette-fired steam, electric generating, boilers (220 million Btu per hour maximum heat input capacity, each; ID Nos. 1A, 1B, and 1C)</p> <p>** "unadulterated wood" as defined per 15A NCAC 2Q .0703(23)</p>	CD-1-1A CD-1-1B CD-1-1C	Three bagfilters (16,800 square feet of filter area, each)
ES-2A through ES-2C (PSD)	Three coal bunkers	CD-2A through CD-2C	Three bagfilters (161 square feet of filter area each, respectively)
ES-3 (PSD)	One flyash silo with wet slurry pugmill for unloading	CD-3	One silo binvent (100 square feet of filter area)
ES-4 (PSD)	One bottom ash silo with a retractable bulk unloading spout and enclosed vent return	CD-4	One silo binvent (100 square feet of filter area)
ES-5A and ES-5B (PSD)	Two ash system vacuum transport pumps	CD-5E  CD-5D  CD-5C  CD-5A and CD-5B	<p>One simple cyclone (42 inches in diameter), located on the bottom ash silo</p> <p>One simple cyclone (42 inches in diameter), located on the flyash silo</p> <p>One bagfilter (528 square feet of filter area), located on the flyash silo</p> <p>Two in-line filters (one per pump)</p>
ES-6 (PSD)	Coal unloading/storage and transfer	Wetsup	Wet suppression/chemical binder

## SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

**A. One electricity generating unit consisting of:**

**-three watertube design coal/natural gas/No. 2 and No. 4 fuel oil/tire derived fuel/wood\*/pelletized paper fuel/flyash briquette-fired boilers (ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C) and associated bagfilters (ID Nos. CD-1-1A, CD-1-1B, and CD-1-1C)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input per boiler**	15A NCAC 2D .0516
Particulate matter	0.05 pounds per million Btu heat input per boiler**	15A NCAC 2D .0524 (40 CFR 60, Subpart Db) (60.43b(a)(1))
Opacity	20 percent (6-minute average) per common stack	15A NCAC 2D .0524 (40 CFR 60, Subpart Db) (60.43b(f))
Nitrogen oxide	Coal-firing 0.60 pounds per million Btu heat input per boiler**	15A NCAC 2D .0524 (40 CFR 60, Subpart Db) (60.44b(a))
Nitrogen oxide	Simultaneously burning coal with fuel oil or a mixture of these fuels with natural gas or any other fuel (per boiler**):  $E_n = (0.1H_{go} + 0.3H_{ro} + 0.6H_c)/(H_{go} + H_{ro} + H_c)$ Where: E <sub>n</sub> = nitrogen oxide emission limit (lbs/mmBtu) H <sub>go</sub> = heat input from the combustion of natural gas or distillate oil (mmBtu) H <sub>ro</sub> = heat input from the combustion of residual oil (mmBtu) H <sub>c</sub> = heat input from the combustion of coal (mmBtu)	15A NCAC 2D .0524 (40 CFR 60, Subpart Db) (60.44b(c))
PM <sub>10</sub>	5.94 pounds per hour per boiler**	15A NCAC 2D .0501(e)
Sulfur dioxide	332.2 pounds per hour per boiler**	15A NCAC 2D .0501(e)
Nitrogen oxide	121.0 pounds per hour per boiler**	15A NCAC 2D .0501(e)
Carbon monoxide	121.0 pounds per hour per boiler**	15A NCAC 2D .0501(e)
Particulate matter	0.027 pounds per million Btu heat input per boiler**	15A NCAC 2D .0530
Sulfur dioxide	1.51 pounds per million Btu heat input per boiler**	15A NCAC 2D .0530
Nitrogen oxide	0.55 pounds per million Btu heat input per boiler**	15A NCAC 2D .0530
Carbon monoxide	0.55 pounds per million Btu heat input per boiler**	15A NCAC 2D .0530
Sulfuric acid mist	0.021 pounds per million Btu heat input per boiler**	15A NCAC 2D .0530
PM <sub>10</sub>	Less than 61 tons per consecutive 12 months per boiler**	15A NCAC 2Q .0317 (PSD Avoidance)
Sulfur dioxide	Less than 3282.8 tons per consecutive 12 months per boiler**	15A NCAC 2Q .0317 (PSD Avoidance)
Nitrogen oxide	Less than 1212 tons per consecutive 12 months per boiler**	15A NCAC 2Q .0317 (PSD Avoidance)

Regulated Pollutant	Limits/Standards	Applicable Regulation
Carbon monoxide	Less than 188.5 tons per consecutive 12 months <i>per boiler**</i>	15A NCAC 2Q .0317 (PSD Avoidance)
Toxic air pollutants	<b>State-enforceable only</b> <b>See Section 2.1 A.5</b>	15A NCAC 2Q .0700
Nitrogen oxides	As defined in specific conditions	15A NCAC 2D .1417
<b>Particulate matter</b>	<b>Compliance Assurance Monitoring</b>	<b>15A NCAC 2D .0614</b>
Hazardous air pollutants	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters	15A NCAC 2D .1111 (40 CFR 63, Subpart DDDDD)

\* “Unadulterated wood” as defined per 15A NCAC 2Q .0703(23)

\*\* Stack measured or calculated emissions represent the collective emissions for the three boilers (ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C) in the power unit. “Per boiler” emissions are derived by dividing the measured emissions by the boilers in operation during the timeframe specified. Compliance certification on a per boiler basis is based on the common stack emissions performance divided by the boilers in operation at the time of measurement per power unit.

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

- a. Emissions of sulfur dioxide from these sources (ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C) 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)(4)]

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

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

- c. To assure compliance, the Permittee shall monitor the sulfur content of the coal by using coal supplier certification per total shipment received. The coal supplier certification shall be recorded in a logbook (written or electronic format) per total shipment and include the following information:
  - i. the name of the coal supplier;
  - ii. the maximum sulfur content of the coal received per total shipment;
  - iii. a statement verifying that the methods used to determine the maximum sulfur content of the coal was in accordance with the following:
    - A. sampling – ASTM Method D 2234;
    - B. preparation – ASTM Method D 2013;
    - C. gross calorific value (Btu) – ASTM Method D 5865;
    - D. moisture content – ASTM Method D 3173; and
    - E. sulfur content – ASTM Method D 3177 or ASTM Method D 4239.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the coal is not monitored and recorded. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the emissions exceed the limit in Section 2.1 A.1.a above.

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

- d. The Permittee shall submit a summary report of the coal supplier certifications postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. Also, the Permittee shall submit a certified statement signed by the responsible official that the records of coal supplier certification submitted represent all of the coal fired during the reporting period. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS**

- a. The Permittee shall comply with all applicable provisions, including the testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 “New Source Performance Standards (NSPS)” as promulgated in 40 CFR Part 60 Subpart Db, including Subpart A “General Provisions.” [15A NCAC 2D .0524]

**Emission Limitations** [15A NCAC 2D .0524]

- b. **Particulate matter** – Particulate emissions from these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) shall not exceed 0.05 pounds per million Btu heat input when firing coal with other fuels.
- c. **Opacity** – Each source (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (six-minute average), except for one six-minute period per hour of not more than 27 percent opacity.
- d. **Nitrogen oxides** –
- i. Nitrogen oxides emissions when firing coal shall not exceed 0.60 pounds per million Btu heat input.
  - ii. Nitrogen oxides emissions from the simultaneous combustion of coal with fuel oil or a mixture of these fuels with natural gas or any other fuel shall not be in excess of the rate calculated by the following formula [40 CFR Part 60, Subpart 60.44b(c)]

$$E_n = (0.1H_{go} + 0.3H_{ro} + 0.6H_c)/(H_{go} + H_{ro} + H_c)$$

Where:  $E_n$  = nitrogen oxide emission limit (lb/million Btu)

$H_{go}$  = heat input from combustion of natural gas or distillate oil (million Btu)

$H_{ro}$  = heat input from the combustion of residual oil (million Btu)

$H_c$  = heat input from the combustion of coal (million Btu)

- iii. Compliance with the nitrogen oxide emission limits is determined on a 30-day rolling average basis [40 CFR Part 60, Subpart 60.44b(i)]

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

- e. 40 CFR 60.48b(a) – The Permittee shall calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.
- f. 40 CFR 60.48b(b) – The Permittee shall calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxide emissions discharged to the atmosphere and record the output of the system.
- g. 40 CFR 60.48b(c) – operation of nitrogen oxide continuous monitoring systems and data recording.
- h. 40 CFR 60.48b(d) – measurement of nitrogen oxide 1-hour averages.
- i. 40 CFR 60.48b(e) – installation, evaluation, and operation of continuous monitoring systems.
- j. 40 CFR 60.48b(f) – continuous monitoring systems breakdowns, repairs, calibration checks and zero and span adjustments.

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

- k. 40 CFR 60.49b(d) – recordkeeping of the amounts of each fuel fired each day.
- l. 40 CFR 60.49b(e) – quarterly recordkeeping of the nitrogen content of the residual oil (**if burned**).
- m. 40 CFR 60.49b(f) – recordkeeping of the opacity.
- n. 40 CFR 60.49b(g) and (i) – daily recordkeeping and quarterly reporting of the nitrogen oxide emission rates and supporting data.
- o. 40 CFR 60.49b(h) – reporting of excess emissions.

**3. 15A NCAC 2D .0501(e): COMPLIANCE WITH NATIONAL AMBIENT AIR QUALITY STANDARDS**

- a. Particulate matter (PM<sub>10</sub>) emissions from these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) shall not exceed 5.94 pounds per hour per boiler. [15A NCAC 2D .0501(e)]
- b. Sulfur dioxide emissions from these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) shall not exceed 332.2 pounds per hour per boiler. [15A NCAC 2D .0501(e)]
- c. Nitrogen oxide emissions from these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) shall not exceed 121.0 pounds per hour per boiler. [15A NCAC 2D .0501(e)]
- d. Carbon monoxide emissions from these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) shall not exceed 121.0 pounds per hour per boiler. [15A NCAC 2D .0501(e)]
- e. The maximum sulfur content of any coal received and burned in these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) shall not exceed 1.0 percent by weight. [15A NCAC 2D .0501(e)]

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

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

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

- g. Particulate matter emissions from each source (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) shall be controlled by a bagfilter (**ID Nos. CD-1-1A, CD-1-1B, and CD-1-1C**). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement must include an annual internal inspection of the bagfilters for structural and fabric filter integrity. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(e) if the bagfilters are not inspected and maintained.
- h. The Permittee shall install, operate, and maintain a pressure drop indicator on each bagfilter (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**). The pressure drop across each bagfilter (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) shall not exceed 10 inches of water. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(e) if the pressure drop is not maintained within the prescribed limits.
- i. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. the date and time of each recorded action;
  - ii. the pressure drop once weekly at a minimum when the boiler is operating;
  - iii. the results of each inspection;
  - iv. a report of any maintenance performed on the bagfilters; and
  - v. any variance from manufacturer's recommendations, if any, and corrections made.

**The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(e) if these records are not maintained.**
- j. The Permittee shall follow the monitoring and recordkeeping requirements in Section 2.1 A.1.c. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(e) if the emissions or sulfur content exceed any of the limits in Section 2.1 A.3.a-e. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(e) if this monitoring and recordkeeping is not performed.
- k. The Permittee shall assure compliance with 15A NCAC 2D .0501(e) by determining nitrogen oxide (NO<sub>x</sub>) emissions in pounds per million Btu (and pound per hour) using a continuous emissions monitoring (CEM) system meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75). Compliance with the emission standard shall be determined based on a 30-day rolling average. To compute the 30-day rolling average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75) shall be summed, and the sum shall be divided by 720. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any 30-day average exceeds the limits per Section 2.1 A.3.a-through e above, or records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(e).

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

- l. Within 30 days of a written request from DAQ, the Permittee shall submit a report of any maintenance performed on the bagfilters **(ID Nos. CD-1-1A, CD-1-1B, and CD-1-1C)**.
- m. The Permittee shall follow the reporting requirements in Section 2.1 A.1.d.
- n. The Permittee shall submit a summary report of monitoring and recordkeeping activities **postmarked on or before** January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.
- o. The Permittee shall submit the continuous emissions monitoring data showing the 30-day rolling values in pound per million Btu (and pounds per hour) for each 30-day averaging period during the reporting period **postmarked on or before** January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September.
- p. CEMs Monitor Availability – The Permittee shall submit nitrogen oxide CEM systems monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, **postmarked on or before** January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September.

**4. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. Particulate matter (PM<sub>10</sub>) emissions from each source **(ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C)** shall not exceed 0.027 pounds per million Btu heat input. [15A NCAC 2D .0530]
- b. Sulfur dioxide emissions from each source **(ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C)** shall not exceed 1.51 pounds per million Btu heat input. [15A NCAC 2D .0530]
- c. Nitrogen oxide emissions from each source **(ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C)** shall not exceed 0.55 pounds per million Btu heat input. [15A NCAC 2D .0530]
- d. Carbon monoxide emissions from each source **(ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C)** shall not exceed 0.55 pounds per million Btu heat input. [15A NCAC 2D .0530]
- e. Sulfuric acid mist emissions from each source **(ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C)** shall not exceed 0.021 pounds per million Btu heat input. [15A NCAC 2D .0530]
- f. The maximum sulfur content of any coal received and burned in these sources **(ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C)** shall not exceed 1.0 percent by weight. [15A NCAC 2D .0501(e)]

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

- g. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c) and General Condition JJ. If the results of this test are above any limit given in Section 2.1 A.4.a-e above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- h. The Permittee shall follow the monitoring and recordkeeping requirements in Section 2.1 A.1.c, A.3.g-i, and A.3.k. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the emissions or sulfur content exceed any of the limits in Section 2.1 A.4.a-f. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if this monitoring and recordkeeping is not performed.

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

- i. The Permittee shall follow the reporting requirements in Section 2.1 A.1.d and A.3.m-p.

**5. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS  
for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

Subsequent to the limits established per condition 2.1 A.3 and 2.1 A.4, the Permittee requested a permit modification to allow for the combustion of unadulterated wood and up to 40% TDF. In order to avoid the applicability per 15A NCAC 2D .0530 for this modification, the following limits apply at all times. The prior existing PSD and NAAQS permit limits additionally apply at all times.

- a. Particulate matter emissions from each source (**ID No. ES-1-1A, ES-1-1B, and ES-1-1C**) shall not exceed 61.0 tons PM<sub>10</sub> per consecutive 12-month period. [15A NCAC 2D .0530]
- b. Nitrogen oxide emissions from each source (**ID No. ES-1-1A, ES-1-1B, and ES-1-1C**) shall not exceed 1212.0 tons NO<sub>x</sub> per consecutive 12-month period. [15A NCAC 2D .0530]
- c. Carbon monoxide emissions from each source (**ID No. ES-1-1A, ES-1-1B, and ES-1-1C**) shall not exceed 188.5 tons CO per consecutive 12-month period. [15A NCAC 2D .0530]
- d. Sulfur dioxide emissions from each source (**ID No. ES-1-1A, ES-1-1B, and ES-1-1C**) shall not exceed 3,282.8 tons SO<sub>2</sub> per consecutive 12-month period. [15A NCAC 2D .0530]

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

- e. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c) and General Condition JJ. If the results of this test are above any limit given in Section 2.1 A.5.a through d above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.
- f. Under the provisions of NCGS 143-215.108, the Permittee shall conduct an emission stack test for PM<sub>10</sub>, CO, and SO<sub>2</sub> on *each* source stack (**Unit 1 – ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) once per permit term to determine the emission rate in pounds per hour and pounds per million Btu for each pollutant as follows:
  - i. each emission stack test shall include, but are not limited to, the fuel combinations (based on percent of heat input): 100% wood, 50% wood/50% coal, 60% coal/40% TDF, and 20% TDF/30% wood/50% coal. If physical design limitations exist which prevent the Permittee from achieving any of the above feed compositions, the Permittee shall conduct the tests with the maximum feasible feed rates of wood, coal, and/or tire-derived fuels;
  - ii. all testing shall be conducted in accordance with a testing protocol approved by the DAQ, as provided in Section 3, General Condition JJ of this permit;
  - iii. the Permittee shall submit a written report of the test results to the DAQ Regional Supervisor within 60 days of completion of each test; and
  - iv. the Permittee shall establish emission factors in the units of pounds per million Btu heat input. These factors shall be used, along with the actual fuel input, to calculate monthly PM<sub>10</sub>, CO, and SO<sub>2</sub> emissions from each source (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**). The emission factors shall be established based on the average of all tests performed on the respective source (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) under the appropriate fuel combination operating scenario. The Permittee shall monitor fuel usage during the test periods and subsequent to the testing to ensure the representativeness of the emission factors established through this testing condition.

If the required stack tests are not conducted or if the results of these tests are above the limits given in Section 2.1 A.5.a through d above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- g. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amount and heat content of each fuel fired in these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) under each applicable fuel combination. The Permittee shall monitor the fuel usage such to ensure that the factors established per Section 2.1 A.5.e are representative of the actual boiler operation. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the fuel usage is not monitored.
- h. The use of fuel in each source (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) shall be limited such that the emissions shall not exceed the limits given in Section 2.1 A.5.a through d above for any consecutive 12-month period. Calculations shall be made monthly and recorded in a logbook (written or electronic format), according to the following formulas:

$$\text{Total actual lb particulate matter (PM}_{10}\text{) emitted} = X \times 0.014 \text{ lb particulate matter/mmBtu} + Z(a) \times \text{PM}_{10\text{Factor}(a)} \text{ lb particulate matter/mmBtu}$$

Where: X is the mmBtu heat input from coal-only fuel combustion  
Z(a) is the mmBtu heat input from the applicable wood/coal/TDF fuel combustion scenario (a) per Section 2.1 A.5.e  
PM<sub>10Factor(a)</sub> is the scenario (a) emission factor established per Section 2.1 A.5.e

$$\text{Total actual lb carbon monoxide (CO) emitted} = X \times 0.041 \text{ lb CO/mmBtu} + Z(a) \times \text{CO}_{\text{Factor}(a)} \text{ lb CO/mmBtu}$$

Where: X is the mmBtu heat input from coal-only fuel combustion  
Z(a) is the mmBtu heat input from the applicable wood/coal/TDF fuel combustion scenario (a) per Section 2.1 A.5.e  
CO<sub>Factor(a)</sub> is the scenario (a) emission factor established per Section 2.1 A.5.e

$$\text{Total actual lb sulfur dioxide (SO}_2\text{) emitted} = X \times 1.29 \text{ lb SO}_2\text{/mmBtu} + Z(a) \times \text{SO}_{2\text{Factor}(a)} \text{ lb SO}_2\text{/mmBtu}$$

Where: X is the mmBtu heat input from coal-only fuel combustion  
Z(a) is the mmBtu heat input from the applicable wood/coal/TDF fuel combustion scenario (a) per Section 2.1 A.5.e  
SO<sub>2Factor(a)</sub> is the scenario (a) emission factor established per Section 2.1 A.5.e

The nitrogen oxide emissions shall be determined based on the procedures per Section 2.1 A.3.k. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the above records are not kept or the emissions exceed the above limits.

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

- i. The Permittee shall submit a summary report of monitoring and recordkeeping activities within 30 days after each calendar year quarter, due and post marked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. The report shall contain the following:
  - i. the monthly PM<sub>10</sub>, NO<sub>x</sub>, CO, and SO<sub>2</sub> emissions for the previous 14 month. The emissions must be calculated for each of the 12-month periods over the previous 14 months;
  - ii. the monthly quantities of coal and wood/coal/TDF fuel combination consumed for the previous 14 months;
  - iii. the actual consumed wood/coal/TDF fuel combination fuel input ratios as compared to the combination used to establish the emission factors per Section 2.1 A.5.f; and
  - iv. all instances of deviations from the requirements of this permit must be clearly identified.

**State-enforceable only**

**6. 15A NCAC 2Q .0700: TOXIC AIR POLLUTANT PROCEDURES**

- a. The Permittee is allowed to burn the following as supplemental fuels in these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) provided that the wastes are generated at this plant-site and are combusted under the conditions of high fire producing high steam demand:
  - i. waste water basin/evaporation pit sludge of a maximum feed rate of 1% by weight not to exceed 20 tons per year,
  - ii. activated carbon filters from the water treatment process not to exceed 10 tons per year, and
  - iii. boiler cleaning solution with a maximum injection rate of 10 gallons per minute of the solution per 100,000 pounds pf steam flow not to exceed 35,000 gallons per year.

- b. The Permittee may use the following for normal start-up of these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) provided that the oil is generated at this plant-site:
  - i. unadulterated oil soaked rags,
  - ii. wood scraps,
  - iii. used oil absorbents,
  - iv. used/fuel oil soaked rags, and
  - v. used oil soaked wood chips.
- c. The Permittee may burn “regenerated” spent cation/anion resins [spent demineralizer resin] in these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) once the following conditions have been met:
  - i. testing adequate to determine the quantity and type of any toxic materials listed in 15A NCAC 2Q .0711 shall be performed. The results shall be forwarded to the Raleigh Regional Supervisor, Division of Air Quality.
  - ii. the Permittee shall request and obtain written permission from the Raleigh Regional Supervisor, Division of Air Quality, prior to burning the resins.
  - iii. combustion of these plant wastes will occur with the following limitations:
    - A. wastes are generated from this plant-site,
    - B. wastes are combusted in these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) operating under conditions of high fire producing high steam demand,
    - C. combustion of these plant wastes will occur with the following limitations that the maximum amount of “regenerated” spent cation/anion resins [spent demineralizer resin] shall not exceed 40 tons per year.
- d. The tire derived fuel feed rate shall not exceed 40% of the heat input of each source (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**).
- e. To comply with this permit and avoid the applicability of 15A NCAC 2Q .0706 “Modifications” as requested by the Permittee, toxic pollutant emissions from the firing of the alternative fuel flyash briquettes in these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) shall be less than the emissions from the firing of coal in these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**). To ensure enforceability of this limit, flyash briquettes will be fired only during low steam demand conditions, defined to be:
  - i. when the plant is dispatched off-line (no electrical generation produced for the utility), and
  - ii. steam production limit of 25,000 pounds steam per hour.
- f. Other than allowed per Section 2.1 A.6.b above, the wood combusted in these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**) shall meet the definition of “unadulterated wood” as defined per 15A NCAC 2Q .0703(23).

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

- g. The Permittee shall maintain a plant waste fuel start-up logbook onsite with the following information:
  - i. date of start-up,
  - ii. hours of start-up, and
  - iii. quantity and types of materials used when plant wastes are used to start-up these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**).
- h. The Permittee shall maintain a plant waste combustion logbook onsite with the following information:
  - i. date of plant waste combustion,
  - ii. type of plant waste combusted,
  - iii. quantity of waste materials combusted,
  - iv. feed rate of plant waste to these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**),
  - v. feed rate of coal to these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**), and
  - vi. documentation of any feed rate limitation, if applicable.
- i. The Permittee shall maintain a tire derived fuel (TDF) combustion logbook onsite with the following information:
  - i. date of TDF combustion,
  - ii. quantity of TDF combusted,
  - iii. feed rate of TDF to these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**),
  - iv. feed rate of coal to these sources (**ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**), and
  - v. documentation of any feed rate limitation, if applicable.
- j. The Permittee shall maintain a pelletized paper fuel (PPF) combustion logbook onsite with the following

information:

- i. date of PPF combustion,
  - ii. description of PPF combusted,
  - iii. quantity of PPF combusted,
  - iv. feed rate of PPF to these sources **(ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C)**,
  - v. feed rate of coal to these sources **(ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C)**, and
  - vi. documentation of any feed rate limitation, if applicable.
- k. The Permittee shall maintain a flyash briquette combustion logbook onsite with the following information:
- i. daily quantity of flyash briquettes combusted,
  - ii. maximum hourly steam demand during the hours of flyash briquettes combustion for that day, and
  - iii. daily recordkeeping is only required on days in which briquettes are burned.
- l. **The Permittee shall be deemed in noncompliance with 15A NCAC 2Q .0700 if the monitoring and recordkeeping requirements in Sections 2.1 A.6.g through k are not maintained.**

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

- m. Within 30 days after each calendar year, the following shall be reported:
- i. the total amount of the flyash briquettes burned, and
  - ii. the chemical composition datasheet and/or MSDS for each shipment of flyash briquettes received during that calendar year.
- n. Prior to combustion for the first time, the Permittee shall submit an analysis of the used oil and unadulterated oil equivalency determination for approval.
- o. Within 30 days after the end of each calendar year, the Permittee shall submit a report of the number of gallons of used oil combusted and an analysis of the used oil.
- p. Within 30 days after the initial use of each of these permitted alternative fuels and plant wastes, the Permittee shall submit in writing the type of fuel or plant waste and the date in which the material was first used in these sources **(ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C)**.

**7. 15A NCAC 2D .1417: EMISSION ALLOCATIONS FOR LARGE COMBUSTION SOURCES**

- a. **The Permittee shall limit NO<sub>x</sub> emissions from these sources (ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C) to less than 192 tons per season (May 1 through September 30) until revised according to 15A NCAC 2D .1420, except as allowed under Section 2.1 A.7.b below.**
- b. **These sources (ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C) may comply with the requirements of 15A NCAC 2D .1417 using the nitrogen oxide budget trading program set out in 15A NCAC 2D .1419. If a source uses the nitrogen oxide budget trading program to comply, it shall have installed and begun operating by May 1, 2004, a continuous emissions monitoring system that complies with 40 CFR Part 96. [15A NCAC 2D .1417(d) and 15A NCAC 2D .1419(b)(2)]**

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

- c. The Permittee shall assure compliance with 15A NCAC 2D .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 comply with the recordkeeping requirements of 40 CFR 96, Budget Trading Program for State Implementation Plans. All instances of deviations from the requirements of this permit must be clearly identified. If nitrogen oxide emissions for any ozone season exceed the allowances held in the Compliance Account as of November 30 of each year or the recordkeeping requirements are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1417.

**Reporting** [1A NCAC 2Q .0508(f) and 15A NCAC 2D .1404(g) and (h)]

- d. The Permittee shall comply with the reporting requirements of 40 CFR 96, Budget Trading Program for State Implementation Plans. The Permittee shall report no later than July 30 of each year the tons of nitrogen oxides emitted during the previous May and June and shall report no later than October 30 the tons of nitrogen oxides emitted during the previous ozone season. One copy of this report shall be sent to the appropriate Regional Office and one copy shall be sent to the Stationary Source Compliance Supervisor at the address shown in General Condition D.

**8. 15A NCAC 2D .0614: COMPLIANCE ASSURANCE MONITORING**

- a. Per 40 CFR 64 and 15A NCAC 2D .0614, the Permittee shall comply with the following.
- b. **Background**
  - i. **Emission Unit(s).**
    - (A) Description. Three watertube design coal/natural gas/No. 2 and No. 4 fuel oil/tire derived fuel/wood\*\*/pelletized paper fuel/flyash briquette-fired boilers
    - (B) Identification. **ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C**
  - ii. **Applicable Regulation, Emission Limit, and Monitoring Requirements.**
    - (A) Regulations. 15A NCAC 2D .0524 (Subpart Db)
      - 15A NCAC 2D .0501(e)
      - 15A NCAC 2D .0530
      - 15A NCAC 2Q .0317 (PSD Avoidance)
    - (B) Emission limits.
      - 1. 0.05 pounds per million Btu heat input (40 CFR 60.43b(a)(1)) – [particulate matter]  
20 percent opacity [40 CFR 60.43b(f)]
      - 2. 5.94 pounds per hour per boiler [PM<sub>10</sub>]
      - 3. 0.027 pounds per million Btu heat input per boiler [PM<sub>10</sub>]
      - 4. Less than 61 tons per consecutive 12 month period [PM<sub>10</sub>]
    - (C) Control Technology. Three bagfilters (**ID Nos. CD-1-1A, CD-1-1B, and CD-1-1C**)
- c. **Monitoring Approach.** The key elements of the monitoring approach for particulate matter, including parameters to be monitored, parameter ranges and performance criteria are presented in the following table.

	<b>1</b>	<b>2</b>
I. Indicator	Visible emissions	Pressure drop
Measurement Approach	Visible emissions from the fabric filter will be monitored continuously using COM system on each common stack	Pressure drop across the fabric filter is measured with a differential pressure gauge
II. Indicator Range	An excursion is defined as visible emissions in amounts greater than or equal to 15% ( <b>six-minute average</b> ). Excursions trigger an inspection, corrective action, and a reporting requirement.	An excursion is defined as a pressure drop greater than 9.5 inches of water. Excursions trigger an inspection, corrective action, and a reporting requirement.
QIP Threshold	The QIP threshold is six excursions in a 6-month reporting period.	None selected

	1	2
<b>III. Performance Criteria</b>		
A. Data Representativeness	Measurements are being made at the emission point (fabric filter outlet) of each common stack	Pressure taps are located at the fabric filter inlet and outlet. The gauge has a minimum accuracy of 0.5 inches of water.
B. Verification of Operational Status	NA	NA
C. QA/QC Practices	The COM systems shall be calibrated, maintained and operated according to 40 CFR 60, Appendix B, PS1.	The pressure gauge is checked daily for operation.
D. Monitoring Frequency	Data is collected continuously with COM systems.	Pressure drop is monitored daily.
Data Collection Procedures	Data from the COM systems is collected electronically and maintained on the Data Acquisition and Handling System computer along with information on the operating status of the boilers.	Pressure gauge readings are manually recorded daily.
Averaging Periods	NA	NA

d. **Justification**

i. **Background.** The pollutant-specific emission units are the three identical stoker boilers used to produce steam. A portion of which is sold to a nearby industrial facility for use in their process. The remainder of the steam is used to drive a steam turbine connected to an electrical generator to generate electricity for wholesale to the connected utility. The particulate matter emissions from each boiler are controlled by fabric filters with approximately 16,800 square feet of filter area, each.

ii. **Rationale for Selection of Performance Indicators.** Visible emissions was selected as the performance indicator because it is a good indicator of the proper operation and maintenance of the filter units. When the filter units are operating properly, there will not be any visible emissions in the exhaust outlet. Any increase in visible emissions indicates reduced performance of the filter units, therefore, the presence of visible emissions in levels exceeding or equal to 15% (**six-minute average**) is used as a performance indicator.

In general, filters are designed to operate at a relatively constant pressure drop. Monitoring pressure drop provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged/broken, the bags are becoming blinded, or the airflow has increased. A decrease in pressure drop may indicate broken or loose bags, but this is also indicated by the presence of visible emissions, indicator No. 1. A pressure drop across the filter unit also serves to indicate that there is airflow through the control device.

iii. **Rationale for Section of Indicator Ranges.** Per operating knowledge of the systems, the facility has selected an indicator range of greater than or equal to 15% opacity (**six-minute average**). When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because: (1) an increase in visible emissions is indicative of an increase in particulate emissions; and (2) a COMs is a well established monitoring technique for these sources.

The selected QIP threshold for fabric filter visible emissions is six excursions in a 6-month reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

The indicator range chosen for the fabric filter pressure drop is greater than 9.5 inches water. An excursion triggers an inspection, corrective action, and a reporting requirement. The pressure drop is recorded daily. As the pressure drop approaches 9.5 inches water the bags are scheduled for replacement.

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

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

**9. 15A NCAC 2D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY**

The Permittee shall comply with all applicable provisions contained in Environmental Management Commission Standard 15A NCAC 2D .1111, “Maximum Achievable Control Technology” (MACT) as promulgated in 40 CFR Part 63, Subpart DDDDD, “National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters” for its existing, watertube design, large, solid fuel fired boilers (ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C) by September 13, 2007.

- B. Three coal bunkers (ID Nos. ES-2A through ES-2C) and associated bagfilters (ID Nos. CD-2A through ES-2C)

One flyash silo (ID No. ES-3) with wet slurry pugmill for unloading and associated binvent (ID No. CD-3)

One bottom ash silo (ID No. ES-4) with a dry bulk unloading spout with vent return line and enclosed return line and associated binvent (ID No. CD-4)

Two ash system vacuum transport pumps (ID Nos. ES-5A and ES-5B) and associated filters (ID Nos. CD-5A and CD-5B), cyclones (ID Nos. CD-5D and CD-5E), and bagfilter (ID No. CD-5C)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	20- percent opacity	15A NCAC 2D .0521
Particulate matter	<u>Coal bunkers (ID Nos. ES-2A through ES-2C) –</u> $2.7 \times 10^{-5}$ pounds per hour – each coal bunker  <u>Ash silos (ID Nos. ES-3 and ES-4) –</u> 0.032 pounds per hour – each ash silo  <u>Ash transport (ID Nos. ES-5A and ES-5B) –</u> 0.032 pounds per hour – each ash silo pump	15A NCAC 2D .0530

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

- a. Visible emissions from these sources (ID Nos. ES-2A through ES-2C, ES-3, ES-4, ES-5A, and ES-5B) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent opacity not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

**Testing** [15A NCAC 2D .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.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission points from these sources (**ID Nos. ES-2A through ES-2C, ES-3, ES-4, ES-5A, and ES-5B**) for any visible emissions above normal. If visible emissions from these sources (**ID Nos. ES-2A through ES-2C, ES-3, ES-4, ES-5A, and ES-5B**) are observed to be above normal, the Permittee shall:
  - i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - ii. demonstrate that the percent opacity from the emission points of the emission sources (**ID Nos. ES-2A through ES-2C, ES-3, ES-4, ES-5A, and ES-5B**) in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 B.1.a above.

If the **above-normal emissions are not corrected per i. above** or if the demonstration in **ii. above** cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

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

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

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

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

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

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

- a. Particulate matter emissions from each source (**ID Nos. ES-2A through ES-2C**) shall not exceed  $2.7 \times 10^{-5}$  pounds per hour. [15A NCAC 2D .0530]
- b. Particulate matter emissions from each source (**ID Nos. ES-3 and ES-4**) shall not exceed 0.032 pounds per hour. [15A NCAC 2D .0530]
- c. Particulate matter emissions from each source (**ID Nos. ES-5A and ES-5B**) shall not exceed 0.032 pounds per hour. [15A NCAC 2D .0530]

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

- d. Particulate matter emissions from these sources (**ID Nos. ES-2A through ES-2C, ES-3, ES-4, ES-5A, and ES-5B**) shall be controlled by four bagfilters (**ID Nos. CD-2A through CD-2C, and CD-5B**), two simple cyclones (**ID Nos. CD-5D and CD-5E**), two binvents (**ID Nos. CD-3 and CD-4**), and two in-line filters (**ID Nos. CD-5A and CD-5B**) **as described above**. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturers. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
  - i. an annual (**for each 12 month period following the initial inspection**) internal inspection of the simple cyclones structural integrity; and

ii. an annual (for each 12 month period following the initial inspection) internal inspection of the bagfilters/binvents/in-line filters for structural and fabric filter integrity. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the binvents, cyclones, in-line filters, and bagfilters are not inspected and maintained.

- e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on site and made available to an authorized DAQ representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the control devices; and
  - iv. any variance from manufacturer’s recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained.

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

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

**C. Coal unloading/storage and transfer operations (ID No. ES-6) and associated wet suppression system (ID No. Wetsup)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Particulate matter	Wet suppression shall be used on the following: -rail car unloading -coal pile load-in/out -wind erosion coal piles	15A NCAC 2D .0530

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

- a. Visible emissions from this source (ID No. ES-6) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent opacity not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe this source (ID No. ES-6) for any visible emissions above normal. If visible emissions from this source (ID No. ES-6) are observed to be above normal, the Permittee shall:
  - i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or

- ii. demonstrate that the percent opacity from the emission points of the emission source (**ID No. ES-6**) in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 C.1.a above. If the **above-normal emissions are not corrected per i. above** or if the demonstration in **ii. above** cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

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

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on site and made available to an authorized DAQ representative upon request. The logbook shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; **and**
  - iii. **the results of any corrective actions performed.****The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.**

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

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

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

- a. The Permittee shall employ wet suppression **as needed** on the rail car unloading, the coal pile load-in/out, and the wind erosion coal piles (**ID No. ES-6**). [15A NCAC 2D .0530]

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

- b. Particulate matter emissions from this emission source (**ID Nos. ES-6**) shall be controlled by wet suppression (**ID No. Wetsup**) **as needed**. To assure compliance, the Permittee shall perform inspections and maintenance on the wet suppression (**ID No. Wetsup**) system as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include a monthly external inspection of the system for integrity of piping and nozzles. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the system is not inspected and maintained.

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

- c. A wet suppression log shall be maintained indicating areas and dates wet suppression was applied. No reporting is required but the log shall be made available to a DAQ representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the wet suppression log is not maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) onsite 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 action or inspection;
  - iii. a report of any maintenance performed on the wet suppression system (**ID No. Wetsup**); and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.**The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained.**

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

- e. Within 30 days of a written request from the DAQ, the Permittee shall submit a report of any maintenance performed on the wet suppression system (**ID No. Wetsup**).

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

### **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 of 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 corrected 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, **including 15A NCAC 2D .0535(c) as follows:**

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

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

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

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

**K. Permit Renewal [15A NCAC 2Q .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:

- a. the identification of each term or condition of the permit that is the basis of the certification;
- b. the compliance status **(with the terms and conditions of the permit for the period covered by the certification)**;
- c. whether compliance was continuous or intermittent; and
- d. 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:

- a. the information contained in the application or presented in support thereof is determined to be incorrect;
- b. the conditions under which the permit or permit renewal was granted have changed;
- c. violations of conditions contained in the permit have occurred;
- d. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
- e. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

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

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

U. **Property Rights** [15A NCAC 2Q .0508(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 .0200(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 ensure 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 .1806 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.508(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.

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