



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

Beverly Eaves Purdue
Governor
xx

Sheila C. Holman
Director
DRAFT

Dee Freeman
Secretary

Mr. Benjamin L. Ethridge, Jr.
Vice President
Lumberton Energy, LLC
2705 Bee Caves Road, Suite 340
Austin, TX 78746

Dear Mr. Ethridge, Jr.:

SUBJECT: Air Quality Permit No. 05543T18
Facility ID: 7800166
Lumberton Energy, LLC
Lumberton
Robeson County
Fee Class: Title V

In accordance with your completed Air Quality Permit Application for a PSD modification of a Title V Permit received August 17, 2010, we are forwarding herewith Air Quality Permit No. 05543T18 to Lumberton Energy, LLC, S.R. 2202, Lumberton, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

The Permittee shall file a Title V Air Quality Permit Application pursuant to 15A NCAC 2Q .0504 for burning of non-CISWI subject wood and modifications of over-fire air systems in boilers (ID Nos. ES-1A and ES-1B), modifications of bagfilters (ID Nos. CD-1A, CD-1B), installation of multiclones (ID Nos. CD-1A2 and CD-1B2), selective non-catalytic reduction systems (ID Nos. CD-1A3 and CD-1B3) and dry sorbent injection systems (ID Nos. CD-1A4 and CD-1B4), installation of aqueous ammonia storage tank (ID No. ES-15), and modifications of flyash silo (ID No. ES-3) and bagfilter (ID No. CD-3), on or before 12 months after commencing operation.

Permitting Section
1641 Mail Service Center, Raleigh, North Carolina 27699-1641
217 West Jones Street, Raleigh, North Carolina 27603
Phone: 919-707- 8405 / FAX 919-715-0717 / Internet: www.ncair.org

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Mr. Benjamin L. Ethridge, Jr.

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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.

For PSD increment tracking purposes, PM-10 and PM-2.5 emissions have increased by 1.0 lbs/hr and 1.1 lbs/hr, respectively. In addition, SO₂ and NO_x emissions have decreased by 184.7 lbs/hr and 17.9 lbs/hr, respectively.

In addition, specific changes and additions as summarized in the attachment below have been made to the permit (note: this list may not include all changes and additions).

This Air Quality Permit shall be effective from xx until December 31, 2012 is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Please note the attached summary table outlines the changes made to the permit. Should you have any questions concerning this matter, please contact Rahul P. Thaker, P.E., QEP, at (919) 707-8740.

Mr. Benjamin L. Ethridge, Jr.

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Sincerely yours,

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

Enclosure

c: Gregg Worley, EPA Region 4
Connie Horne, cover page only
Fayetteville Regional Office
Central Files

**Lumberton Energy, LLC
Attachment**

The following changes were made to the Lumberton Energy, LLC, Air Quality Permit No. 05543T17:

Old Page No. [Air Quality Permit No. 05543T17]	New Page No. [Air Quality Permit No. 05543T18]	Condition No.	Changes
Insignificant Activities Table	Insignificant Activities Table	Attachment to the Cover Letter	Include the following new insignificant activities: truck dumper No. 1 for receiving biomass fuel (IES-8), truck dumper No. 2 for receiving biomass fuel (IES-9), fuel storage piles (IES-10), fuel material handling including conveyors, front-end loader/dozer and other vehicular traffic in the fuel yard (IES-11), paved roads (IES-12), one sorbent silo (IES-13) and one bottom and sifting ash bunker (IES-14).
Entire Permit	Entire Permit	Various	Replace the citation 15A NCAC 2D .2601 in Testing conditions with 15A NCAC 2Q .0508(f).
3	3	Section 1 Table	<p>Move insignificant activity IES-1 (340 HP diesel fired emergency fire pump) from the cover letter attachment to the Section 1 Table and label it as ES-1.</p> <p>Modify the descriptor for boilers to include approval for burning of “non-CISWI subject wood” and over-fire air systems.</p> <p>Remove ROFA and ROTAMIX control technology equipment associated with boilers.</p> <p>Modify descriptor for baghouses associated with boilers to state “3.26:1 air-to-cloth ratio”.</p> <p>Include new control devices for boilers: two selective non-catalytic reduction systems, two multiclones and two dry sorbent injection systems.</p> <p>Modify descriptor for CD-3 to state “400 square feet of filter area”.</p> <p>Include new 7100 gallons aqueous ammonia storage tank.</p>
4	4	Section 2.1 A.	Modify the descriptor for boilers (ES-1A and ES-1B) to exclude ROFA and ROTAMIX control equipment, and to include two selective non-catalytic reduction systems, two multiclones, and two dry sorbent injection systems.
4	4	Section 2.1 A. Table	<p>Clarify the existing emissions limits under 2D .0501(e) for PM, SO₂, NO_x and CO, apply only when burning coal.</p> <p>Clarify the existing emissions limits under 2D .0530 for PM, SO₂, NO_x and CO, apply only when burning coal.</p> <p>Include new emissions limits for CO and sulfuric acid mist under 2D .0530 when burning non-CISWI subject wood.</p>

			<p>Include new emissions limits for PM10/PM2.5, SO2, NOx, VOC and Hg under Senate Bill 3, when burning non-CISWI subject wood.</p> <p>Include new applicable requirements under 2D .0504, .1100 and .1111, and 2Q .0317 and .0711.</p>
-	6	Section 2.1 A. 2.	Include this new applicable requirement under 2D .0504.
-	11	Section 2.1 A. 6.	Include new PSD requirements for CO and sulfuric acid mist when firing non-CISWI subject wood.
10	22	Section 2.1 A.7.	Move this existing requirement under 2Q .0700 and consolidate it in a new Section 2.2 A.3.
-	12	Section 2.1 A. 7.	Include this new requirement under Senate Bill 3 for PM10/PM2.5, SO2, NOx, VOC and Hg when burning non-CISWI subject wood.
-	14	Section 2.1 A. 9.	Include this new requirement for MACT 6J under 2D .1111.
-	19	Section 2.1 D.	Include this new Section for aqueous ammonia storage tank.
-	19	Section 2.1 E.	Include this new Section for emergency fire pump.
-	20	Section 2.2 A.1.	Include the new applicable requirement for 2D .1100.
-	21	Section 2.2 A.2.	Include the new applicable requirement for 2Q .0317 (MACT Avoidance)
-	22	Section 2.2 A.3.	Include the applicable requirement for 2Q .0711.
28, 29 and 30	34, 36 and 37	Section 3	Revise General Condition JJ, remove General Condition OO and replace it with the new OO condition from the DAQ's Title V database. Include the latest set of Acronym from the database.

**Lumberton Energy, LLC
Attachment**

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

Source ID Nos.	Emission Source Description
IES-2	one diesel fuel oil storage tank
IES-3	one fire pump fuel oil storage tank
IES-4	one solvent parts cleaner
IES-5	one turbine lube oil tank vent
IES-6	one cooling tower
IES-7	tire shredders
IES-8	truck dumper No. 1 for receiving biomass fuel
IES-9	truck dumper No. 2 for receiving biomass fuel
IES-10	fuel storage piles
IES-11	fuel material handling including conveyors, front-end loader/dozer and other vehicular traffic in the fuel yard
IES-12	paved roads
IES-13	one sorbent silo
IES-14	one bottom and sifting ash bunker



Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date*	Expiration Date*
05543T18	05543T17	xx	December 31, 2012

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

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (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: **Lumberton Energy, LLC**
Facility ID: **7800166**

Facility Site Location: **S.R. 2202**
City, County, State, Zip: **Lumberton, Robeson County, North Carolina 28359**

Mailing Address: **Post Office Box 1063**
City, State, Zip: **Lumberton, North Carolina 28359**

Application Number: **7800166.10A**
Complete Application Date: **August 17, 2010**

Primary SIC Code: **4911**
Division of Air Quality, **Fayetteville Regional Office**
Regional Office Address: **225 Green Street, Suite 714**
Fayetteville, North Carolina 28301

Permit issued this the xx.

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

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

ATTACHMENT

List of Acronyms

Acid Rain Renewal Permit Application dated May 31, 2005

CAIR Permit Application dated February 17, 2010

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-1A and ES-1B PSD CAM	two coal/natural gas/No. 2 and No. 4 fuel oil/tire derived fuel/pelletized paper fuel/flyash briquette/non-CISWI ¹ subject wood*-fired steam, electric generating, boilers (215 million Btu per hour heat input each) including over-fire air systems*	CD-1A3* and CD-1B3* CD-1A2* and CD-1B2* CD-1A4*+ and CD-1B4*+ CD-1A* and CD-1B*	two selective non-catalytic reduction systems (300 lbs/hr aqueous ammonia injection rate each) two multiclones (132 Nos. tubes each, 9 inches in diameter each) two dry sorbent injection systems (50 lbs/hr sodium bicarbonate or sodium sesquicarbonate (trona) injection rate each) two bagfilters (3.26:1 air-to-cloth ratio each)
ES-2A and ES-2B PSD	two coal bunkers	CD-2A and CD-2B	two bagfilters (64 square feet of filter area, each)
ES-3* PSD	one fly ash silo with wet slurry pugmill for unloading	CD-3*	one silo binvent filter (400 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 filter (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 & CD-5B	one simple cyclone (42 inches in diameter) located on the bottom ash silo one bagfilter (528 square feet of filter area) located on the fly ash silo one simple cyclone (42 inches in diameter) located on the fly ash silo two in-line filters (one per pump)
ES-6 PSD	coal unloading/storage and transfer	Wetsup	wet suppression/chemical binder
ES-15* PSD	one 7100 gallons aqueous ammonia storage tank	None	N/A
ES-1 PSD	one diesel fired 340 hp emergency fire pump	None	N/A

*These emission sources and control device are listed as a 15A NCAC 2Q .0501(c)(2) modification (Application Number 7800166.10A). The Permittee shall file a Title V Air Quality Permit Application on or before 12 months after

¹ Commercial/Industrial Solid Waste Incineration

commencing operation in accordance with General Condition NN.1. The permit shield described in General Condition R does not apply and compliance certification as described in General Condition P is not required.

+ Dry sorbent injection systems may be operated intermittently as necessary to maintain compliance with the applicable opacity standards.

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

A. Two coal/natural gas/No. 2 and No. 4 fuel oil/tire derived fuel/pelletized paper fuel/flyash briquette/non-CISWI subject wood-fired boilers including over-fire air systems (ID Nos. ES-1A and ES-1B), and associated selective non-catalytic reduction systems (ID Nos. CD-1A3 and CD-1B3), multiclones (ID Nos. CD-1A2 and CD-1B2), dry sorbent injection systems (ID Nos. CD-1A4 and CD-1B4) and bagfilters (ID Nos. CD-1A and CD-1B)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	0.23 pounds per million Btu heat input	15A NCAC 2D .0503
particulate matter	0.30 pounds per million Btu heat input	15A NCAC 2D .0504
sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
visible emissions	20 percent opacity	15A NCAC 2D .0521
particulate matter	When burning coal See Section 2.1 A.5.a.	15A NCAC 2D .0501(e)
sulfur dioxide	When burning coal See Section 2.1 A.5.b.	15A NCAC 2D .0501(e)
nitrogen oxide	When burning coal See Section 2.1 A.5.c.	15A NCAC 2D .0501(e)
carbon monoxide	When burning coal See Section 2.1 A.5.d.	15A NCAC 2D .0501(e)
particulate matter	When burning coal See Section 2.1 A.6.a.	15A NCAC 2D .0530
sulfur dioxide	When burning coal See Section 2.1 A.6.b.	15A NCAC 2D .0530
nitrogen oxide	When burning coal See Section 2.1 A.6.c.	15A NCAC 2D .0530
carbon monoxide	When burning coal See Section 2.1 A.6.d.	15A NCAC 2D .0530
carbon monoxide	When burning non-CISWI subject wood See Section 2.1 A.6.aa.	15A NCAC 2D .0530
sulfuric acid mist	When burning non-CISWI subject wood See Section 2.1 A.6.aa.	15A NCAC 2D .0530

PM/PM ₁₀	When burning non-CISWI subject wood See Section 2.1. A.7.a.	Senate Bill 3 (Session Law 2007-397) State-only Requirement
PM _{2.5}	When burning non-CISWI subject wood See Section 2.1. A.7.a.	Senate Bill 3 (Session Law 2007-397) State-only Requirement
SO ₂	When burning non-CISWI subject wood See Section 2.1. A.7.a.	Senate Bill 3 (Session Law 2007-397) State-only Requirement
NO _x	When burning non-CISWI subject wood See Section 2.1. A.7.a.	Senate Bill 3 (Session Law 2007-397) State-only Requirement
VOC	When burning non-CISWI subject wood See Section 2.1. A.7.a.	Senate Bill 3 (Session Law 2007-397) State-only Requirement
Hg	When burning non-CISWI subject wood See Section 2.1. A.7.a.	Senate Bill 3 (Session Law 2007-397) State-only Requirement
PM ₁₀	Compliance Assurance Monitoring See Section 2.1 A.8.	15A NCAC 2D .0614 [40 CFR 64]
toxic air pollutants	See Section 2.2 A.1.	15A NCAC 2D .1100 State-only Requirement
hazardous air pollutants	See Section 2.1 A.9.	15A NCAC 2D .1111 [40 CFR 63 Subpart JJJJJ]
nitrogen oxides and sulfur dioxide	Clean Air Interstate Rule (CAIR) Permit Requirements See Section 2.4	15A NCAC 2D .2403, .2404 and .2405
hazardous air pollutants	See Section 2.2 A.2.	15A NCAC 2Q .0317 [MACT Avoidance]
sulfur dioxide and nitrogen oxides	Phase II Acid Rain Permit Requirements See Section 2.3	15A NCAC 2Q .0402
toxic air pollutants	See Section 2.2 A.3.	15A NCAC 2Q .0711 State-only Requirement

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

- a. Emissions of particulate matter from the combustion of fuel that are discharged from these sources into the atmosphere shall not exceed 0.23 pounds per million Btu heat input. [15A NCAC 2D .0503(a)]

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

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

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

- c. Particulate matter emissions from each boiler shall be controlled by a dedicated multicyclone. 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 is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement must include the following:
- i. a monthly external visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. an annual (for each 12 month period from initial inspection) internal inspection of the multicyclone's structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503 if the multicyclones and ductwork are not inspected and maintained.

- d. Particulate matter emissions from each boiler shall be controlled by a dedicated bagfilter. 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 the following:

- i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
- ii. an annual (for each 12 month period following the initial inspection) internal inspection of the bagfilter's structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503 if the ductwork and bagfilters are not inspected and maintained.

- e. The Permittee shall install, operate, and maintain a pressure drop indicator on each bagfilter. The pressure drop across each bagfilter shall not exceed 10 inches of water. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503 if the pressure drop is not maintained within the prescribed limits above or the Permittee does not install, operate, and maintain a pressure drop indicator on each bagfilter.

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

- f. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format), kept 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 pressure drop once weekly at a minimum when the boiler is operating;
 - iii. weekly periods of boiler downtime shall be noted in the logbook;
 - iv. the results of each inspection;
 - v. the results of any maintenance performed on the bagfilters and multicyclones; and
 - vi. any variance from manufacturer's recommendations, if any, and corrections made.
 The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503 if these records are not maintained.

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

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

2. 15A NCAC 2D .0504: PARTICULATES FROM WOOD BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of wood that are discharged from these sources into the atmosphere shall not exceed 0.30 pounds per million Btu heat input. [15A NCAC 2D .0504]
- b. Emissions of particulate matter from the combustion of wood and other fuels from this source shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0504]

$$E = \frac{[(0.30)(Q_w) + (0.23)(Q_f)]}{(Q_w + Q_f)} \text{ pounds per million Btu}$$

where: Q_w = actual wood heat input rate in Btu/hr
 Q_f = actual other fuels input rate in Btu/hr

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

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0504.

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

- d. Particulate matter emissions from each boiler shall be controlled by a dedicated multiclone. 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 is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and

maintenance requirement must include the following:

- iii. a monthly external visual inspection of the system ductwork and material collection unit for leaks; and
- iv. an annual (for each 12 month period following the initial inspection) internal inspection of the multicloner's structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0504 if the ductwork and multicloners are not inspected and maintained.

- e. Particulate matter emissions from each boiler shall be controlled by a dedicated bagfilter. 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 the following:

- i. a monthly external visual inspection of the system ductwork and material collection unit for leaks; and
- ii. an annual (for each 12 month period following the initial inspection) internal inspection of the fabric filter's structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0504 if the ductwork and bagfilters are not inspected and maintained.

- f. The Permittee shall install, operate, and maintain a pressure drop indicator on each bagfilter. The pressure drop across each bagfilter shall not exceed 10 inches of water. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0504 if the pressure drop is not maintained within the prescribed limits above or the Permittee does not install, operate, and maintain a pressure drop indicator on each bagfilter.

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

- g. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format), kept 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 pressure drop once weekly at a minimum when the boiler is operating;
- iii. weekly periods of boiler downtime shall be noted in the logbook;
- iv. the results of each inspection;
- v. the results of any maintenance performed on the multicloners and bagfilters; and
- vi. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0504 if these records are not maintained.

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

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

3. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

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

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

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

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

- c. The Permittee shall assure compliance with 15A NCAC 2D .0516 by determining sulfur dioxide emissions in pounds per million Btu using a continuous emissions monitoring (CEM) system meeting the requirements

of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75, except that the lookback periods per 40 CFR 75.33 (Tables 1 and 2) shall consist of the available data up to the appropriate quality-assured hours. Also, the replacement procedures for monitor data availability between 80 and 90 percent may be used at values below 80 percent). Compliance with sulfur dioxide emission standards shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75, except that the lookback periods per 40 CFR 75.33 (Tables 1 and 2) shall consist of the available data up to the appropriate quality-assured hours. Also, the replacement procedures for monitor data availability between 80 and 90 percent may be used at values below 80 percent) shall be summed, and the sum shall be divided by 24. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any 24-hour block average exceeds 2.3 pounds per million Btu heat input or records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- d. The Permittee shall submit the continuous emissions monitoring data showing the 24-hour daily block values in pounds per million Btu for each 24-hour daily block averaging period during the reporting period no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. All instances of deviations from the requirements of this permit must be clearly identified.
- e. CEMs Monitor Availability - The Permittee shall submit sulfur dioxide CEM systems monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September.

4. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these boilers (**ID Nos. ES-1A and 1B**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]
- b. For sources required to install, operate, and maintain continuous opacity monitoring systems (COMS), compliance with the 20 percent opacity limit shall be determined as follows:[15A NCAC 2D .0521(g)]
 - i. No more than four six-minute periods shall exceed the opacity standard in any one day; and
 - ii. The percent of excess emissions (defined as the percentage of monitored operating time in a calendar quarter above the opacity limit) shall not exceed 0.8 percent of the total operating hours. If a source operates less than 500 hours during a calendar quarter, the percent of excess emissions shall be calculated by including hours operated immediately previous to this quarter until 500 operational hours are obtained.

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

All periods of excess emissions shall be included in the determinations in paragraphs b.i. and b.ii. above until such time that the excess emissions are exempted according to the procedures in 2D .0535.

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

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

noncompliance with 15A NCAC 2D .0521.

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

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

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

- e. The Permittee shall submit the excess emissions and monitor downtime reports as required under Appendix P of 40 CFR Part 51 no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. For periods of excess emissions, defined as each six-minute period average greater than 20 percent opacity, the opacity measurements recorded by the COMS shall be reported as described in Paragraphs 4 and 5.1 of Appendix P of 40 CFR Part 51 except that a six-minute time period shall be deemed as an appropriate alternative opacity averaging period as described in Paragraph 4.2 of Appendix P of 40 CFR Part 51. A minimum of 36 data points, equally spaced, is required to determine a valid six-minute value. All instances of deviations from the requirements of this permit must be clearly identified.

5. 15A NCAC 2D .0501(e): COMPLIANCE WITH NATIONAL AMBIENT AIR QUALITY STANDARDS

When burning coal

- a. Particulate matter emissions from each boiler (**ID Nos. ES-1A and 1B**) shall not exceed 6.02 pounds per hour per boiler. [15A NCAC 2D .0501(e)]
- b. Sulfur dioxide emissions from each boiler (**ID Nos. ES-1A and 1B**) shall not exceed 322.5 pounds per hour per boiler. [15A NCAC 2D .0501(e)]
- c. Nitrogen oxide emissions from each boiler (**ID Nos. ES-1A and 1B**) shall not exceed 141.9 pounds per hour per boiler. [15A NCAC 2D .0501(e)]
- d. Carbon monoxide emissions from each boiler (**ID Nos. ES-1A and 1B**) shall not exceed 120.4 pounds per hour per boiler. [15A NCAC 2D .0501(e)]

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

- e. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above any limit given in Section 2.1 A. 5. a-d. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(e).

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

- f. To demonstrate compliance with Section 2.1 A. 5. a. above, the Permittee shall follow the monitoring, recordkeeping, and reporting requirements in Section 2.1 A. 1. c-g. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(e) if the bagfilters are not inspected and maintained or if these records are not maintained.
- g. The Permittee shall assure compliance with 2.1 A. 5. b. and 2.1 A 5. c. by determining sulfur dioxide and nitrogen oxide emissions in pounds 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, except that the lookback periods per 40 CFR 75.33 (Tables 1 and 2) shall consists of the available data up to the appropriate quality-assured hours. Also, the replacement procedures for monitor data availability between 80 and 90 percent may be used at values below 80 percent). Compliance with emission standards shall be determined by averaging hourly continuous

emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75, except that the lookback periods per 40 CFR 75.33 (Tables 1 and 2) shall consist of the available data up to the appropriate quality-assured hours. Also, the replacement procedures for monitor data availability between 80 and 90 percent may be used at values below 80 percent) shall be summed, and the sum shall be divided by 24. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any 24-hour block average exceeds the limits per 2.1 A. 5. b. or 2.1 A. 5. c. or the records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(e).

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

- h. The Permittee shall submit the continuous emissions monitoring data showing the 24-hour daily block values in pounds per hour for each 24-hour daily block averaging period during the reporting period no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. All instances of deviations from the requirements of this permit must be clearly identified.
- i. **CEMs Monitor Availability** - The Permittee shall submit sulfur dioxide and nitrogen oxide CEM systems monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, no later than January 30 of each calendar year for the preceding 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.

6. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

When burning coal

- a. Particulate matter emissions from each boiler (**ID Nos. ES-1A and 1B**) shall not exceed 0.028 pounds per million Btu heat input. [15A NCAC 2D .0530]
- b. Sulfur dioxide emissions from each boiler (**ID Nos. ES-1A and 1B**) shall not exceed 1.50 pounds per million Btu heat input. [15A NCAC 2D .0530]
- c. Nitrogen oxide emissions from each boiler (**ID Nos. ES-1A and 1B**) shall not exceed 0.66 pounds per million Btu heat input. [15A NCAC 2D .0530]
- d. Carbon monoxide emissions from each boiler (**ID Nos. ES-1A and 1B**) shall not exceed 0.56 pounds per million Btu heat input. [15A NCAC 2D .0530]

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

- e. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above any limit given in Section 2.1 A. 6. a-d. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- f. To demonstrate compliance with Section 2.1 A. 6. a. above, the Permittee shall follow the monitoring, recordkeeping, and reporting requirements in Section 2.1 A. 1. c-g. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the bagfilters are not inspected and maintained or if these records are not maintained.

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

- g. The Permittee shall assure compliance with 2.1 A. 6. b. and 2.1 A. 6. c. by determining sulfur dioxide and nitrogen oxide emissions in pounds per million Btu using a continuous emissions monitoring (CEM) system meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75, except that the lookback periods per 40 CFR 75.33 (Tables 1 and 2) shall consist of the available data up to the appropriate quality-assured hours. Also, the replacement

procedures for monitor data availability between 80 and 90 percent may be used at values below 80 percent). Compliance with emission standards shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75, except that the lookback periods per 40 CFR 75.33 (Tables 1 and 2) shall consist of the available data up to the appropriate quality-assured hours. Also, the replacement procedures for monitor data availability between 80 and 90 percent may be used at values below 80 percent) shall be summed, and the sum shall be divided by 24. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any 24-hour block average exceeds the limits per 2.1 A. 5. b. or 2.1 A 5. c. or the records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- h. The Permittee shall maintain and submit to the Regional Supervisor, on an annual basis for a period of 5 years following the date at which the facility commences operation burning TDF at a rate greater than 20%, information demonstrating that this change in TDF consumption does not result in a greater than significant emissions increase. This demonstration shall, at a minimum, include the original annual baseline emissions for all PSD regulated pollutants, representative of normal source operation prior to the increase in TDF consumption and the annual emissions for all PSD regulated pollutants after this change. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the above records are not kept or the annual emissions during the five-year period after the change for particulate matter, sulfur dioxide, nitrogen oxide, or carbon monoxide have increased above their applicable significant emissions increases.
- i. The Permittee shall submit the continuous emissions monitoring data showing the 24-hour daily block values in pounds per million Btu for each 24-hour daily block averaging period during the reporting period no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. All instances of deviations from the requirements of this permit must be clearly identified.
- j. CEMs Monitor Availability - The Permittee shall submit sulfur dioxide and nitrogen oxide CEM systems monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, no later than January 30 of each calendar year for the preceding 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.

When burning non-CISWI subject wood

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

EMISSION SOURCE	POLLUTANT	EMISSION LIMIT*	CONTROL TECHNOLOGY
Boilers (ID Nos. ES-1A and ES-1B)	CO	0.45 lb/million Btu [stack test: 3-run average]	good combustion control
	Sulfuric acid mist	0.011 lb/million Btu [stack test: 3-run average]	use of low sulfur wood

* BACT emission limits shall apply to each source (ID Nos. ES-1A and ES-1B) and at all times except during the following: Emissions resulting from start-up, shutdown or malfunction above those given in Section 2.1 A.6.aa. above are permitted provided that optimal operational practices are adhered to and periods of excess emissions are minimized.

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

- bb. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emissions limits for CO and sulfuric acid mist in Section 2.1 A.6.aa. above, by testing one of boilers (ID Nos. ES-1A and ES-1B) within 180 days of commencement of burning of non-CISWI subject wood in the first boiler

(either ES-1A or ES-1B).

Details of the emissions testing and reporting requirements can be found in Section 3 - General Condition JJ.

If the average of all runs of the stack tests for CO or sulfuric acid mist exceed the respective emissions limits in Section 2.1 A.6.aa. above or the stack tests are not performed, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

cc. No monitoring/record keeping shall be required for emissions of CO and sulfuric acid mist from boilers (**ID Nos. ES-1A and ES-1B**).

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

dd. No reporting shall be required for emissions of CO and sulfuric acid mist from boilers (**ID Nos. ES-1A and ES-1B**).

State-only Requirement

7. SENATE BILL 3 (Session Law 2007-397)

When burning non-CISWI subject wood

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

EMISSION SOURCE	POLLUTANT	EMISSION LIMITS*	CONTROL TECHNOLOGY
Boilers (ID Nos. ES-1A and ES-1B)	PM/PM ₁₀	0.036 lb/million Btu (both filterable and condensable) [stack test: 3-run average]	multiclone and bagfilter
	PM _{2.5}	0.011 lb/million Btu (both filterable and condensable [organic and inorganic including sulfuric acid mist]) [stack test: 3-run average]	multiclone and bagfilter
	SO ₂	0.025 lb/million Btu [CEM: 30-day rolling average]	use of low sulfur wood
	NO _x	0.125 lb/million Btu [CEM: 30-day rolling average]	selective non-catalytic reduction
	VOC	0.03 lb/million Btu [stack test: 3-run average]	good combustion control
	Hg	5 x 10 ⁻⁶ lb/million Btu [stack test: 3-run average]	bagfilter

* BACT emission limits shall apply to each source (ID Nos. ES-1A and ES-1B) and at all times except during the following: Emissions resulting from start-up, shutdown or malfunction above those given in Section 2.1 A.7.a. above are permitted provided that optimal operational practices are adhered to and periods of excess emissions are minimized.

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

b. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emissions limits for PM/PM₁₀, PM_{2.5}, SO₂, NO_x, VOC, and Hg in Section 2.1 A.7.a. above by testing one of boilers (**ID Nos. ES-1A and ES-1B**) within 180 days of commencement of burning of non-CISWI subject wood in the first boiler (**either ES-1A or ES-1B**).

Details of the emissions testing and reporting requirements can be found in Section 3 - General Condition JJ.

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

- c. The Permittee shall monitor NOx and SO₂ emissions from boilers (**ID Nos. ES-1A and ES-1B**) using continuous emissions monitoring (CEM) systems that meet the requirements of 40 CFR Part 75. Missing data shall be filled in accordance with 40 CFR 75.
- d. Monitoring/recordkeeping requirements for PM emissions from boilers (**ID Nos. ES-1A and ES-1B**) in Section 2.1 A.2. d. through f. above shall be sufficient to assure compliance with PM/PM₁₀, PM_{2.5} and Hg BACT under Senate Bill 3 (Session Law 2007-397).
- e. No monitoring/record keeping shall be required for VOC emissions from boilers (**ID Nos. ES-1A and ES-1B**).

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

- f. Reporting requirement for PM emissions from boilers (**ID Nos. ES-1A and ES-1B**) in Section 2.1 A.2.h. above shall be sufficient to assure compliance with PM/PM₁₀, PM_{2.5} and Hg BACT under Senate Bill 3 (Session Law 2007-397).
- g. The Permittee shall submit a summary report of monitoring and recordkeeping activities by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. All instances of deviations from the requirements of this permit must be clearly identified.

8. 15A NCAC 2D .0614: COMPLIANCE ASSURANCE MONITORING (40 CFR 64)

- a. The Permittee shall ensure that PM10 emitted from the two boilers (**ID Nos. ES-1A and ES-1B**) are controlled by the two bagfilters (**ID Nos. CD-1A and CD-1B**).

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

- b. The Permittee shall comply with the monitoring approach as included in the following Table:

Indicator [64.6(c)(1)(i)]	Opacity
Measurement Approach [64.6(c)(1)(ii)]	Opacity is indicated by a continuous opacity monitors (COMS)
Indicator Range [64.6(c)(2)]	An excursion is defined as a 3-hour block average value of opacity greater than 12 percent.
Quality Improvement Plan (QIP) Threshold [64.8]	Four excursion, as defined above, within any 6-month period.
QA/QC Practices and Criteria [64.3(b)(3)]	The COMS are calibrated as per the manufacturer's recommendation.
Monitoring Frequency [64.3(b)(4)]	Opacity is continuously monitored while bagfilters are in operation.

- c. For any excursion, the Permittee shall initiate an inspection of the control equipment and/or the COMS and initiate the repairs as necessary. The following corrective actions shall be taken as soon as practical:
 - i. Identify cause of excursion.
 - ii. Initiate actions to correct the cause of any excursions identified in step i above. Repair equipment that is not operating properly.
 - iii. Initiate work order for baghouse inspection and repair as needed for any equipment that cannot be repaired during operation.

- iv. Document nature and cause of excursions in operations log.
- v. Improve preventative maintenance procedures as necessary in accordance with CAM QIP (if one exists).
- vi. Provide notification to DAQ in accordance with reporting requirements in the Section 2.1 A.6.e. below.

If the above monitoring and recordkeeping is not performed, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0614.

- d. The Permittee shall retain records of recorded COMs data, each excursion report, and each corrective action taken. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0614 if these records are not retained.

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

- e. Semi annual compliance reports must cover the semiannual reporting period from January 1 through June 30 and the semiannual reporting period from July 1 through December 31. Each compliance report must be postmarked or delivered no later than July 30 or January 30, whichever date is the first date following the end of the semiannual reporting period. The compliance report must contain the following information:
 - i. company name, address and facility ID number,
 - ii. a statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report,
 - iii. the date of report and beginning and ending dates of the reporting period,
 - iv. a statement that there were no excursion outside of the allowable operating parameter limits during the reporting period (as applicable), and that no continuous opacity monitoring system (COMS) was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted. Or for each exceedance of an allowable operating parameter that occurs, the compliance report must contain:
 - (a) the total operating time of the source during the reporting period,
 - (b) information on the number, duration, and cause of exceedances (including unknown cause), if applicable, and the corrective action taken and
 - (c) information on the number, duration, and cause for COMS downtime incidents, if applicable, other than downtime associated with zero and span and other daily calibration checks.

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

- a. For the sources (**ID Nos. ES-1A and ES-1B**), the Permittee shall demonstrate compliance by the dates specified in 40 CFR 63.11196 with all applicable requirements of 15A NCAC 2D .1111 "Maximum Achievable Control Technology" and 40 CFR 63 Subpart JJJJJ "National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers."

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

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

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

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

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	For P ≤ 30 tons per hour: $E=4.10P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour, and For P > 30 tons per hour: $E=55.0P^{0.11} - 40$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521
particulate matter	<u>coal bunkers</u> – bagfilters <u>fly ash silo</u> - wet spray pugmill for unloading & binvent <u>bottom ash silo</u> - loading spout/return vent line & binvent <u>ash transport</u> - two simple cyclones with bagfilter and two inline filters on vacuum pumps	15A NCAC 2D .0530

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

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

For process weights up to 30 tons per hour:

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

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

For process weights greater than 30 tons per hour:

$$E = 55 \times P^{0.11} - 40 \quad \text{Where } E = \text{allowable emission rate in pounds per hour}$$

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

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

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

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

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

- c. Particulate matter emissions from these emission sources shall be controlled three bagfilters (**ID Nos. CD-2A, CD-2B, and CD-5D**), two simple cyclones (**ID Nos. CD-5C and CD-5E**), two binvent filters (**ID Nos. CD-3 and CD-4**), and two in-line filters (**ID Nos. CD-5A and CD-5B**). 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:
- monthly external inspection of the ductwork, cyclones, bagfilters, in-line filters and bin vents noting the structural integrity; and,
 - an annual internal inspection of the bagfilters/binvents/inline filters for structural and fabric filter integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the control devices are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format), kept 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 .0515 if these records are not maintained.

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

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

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

- a. Visible emissions from these sources (**ID Nos. ES-2A, ES-2B, 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 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 2Q .0508(f)]

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

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources for any visible emissions above normal. The Permittee shall establish "normal" for the silo (**ID No. ES-3**) in the first 30 days from the commencement of operation of this silo. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 2D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 B. 2. a. above.

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

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

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format), kept 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; and
 - 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.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 by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the

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

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

- a. The Permittee shall operate and maintain bagfilters (**ID Nos. CD-2A and CD-2B**) installed on two coal bunkers (ID Nos. ES-2A and ES-2B), binvent filters (**ID Nos. CD-3 and CD-4**) installed one each on the ash silos (ID Nos. ES-3 and ES-4), and two inline filters (**ID Nos. CD-5A and CD-5B**), two simple cyclones (ID Nos. **CD-5C and CD-5E**), plus one bagfilter (**ID No. CD-5D**) installed on two ash system vacuum transport pumps (ID Nos. ES-5A and ES-5B) [15A NCAC 2D .0530]

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

- b. The Permittee shall follow the monitoring, recordkeeping, and reporting requirements in Section 2.1 B. 1. c-f. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the binvent filters, cyclones, inline filers, and bagfilters are not inspected and maintained or if these records are not maintained.

C. Coal unloading/storage and transfer (ID No. ES-6)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
visible emissions	20 percent opacity	15A NCAC 2D .0521
particulate matter	wet suppression shall be used on the following: coal unloading coal front end loader operations coal storage pile load in/out wind erosion coal piles conveyors partially enclosed	15A NCAC 2D .0530

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

- a. Visible emissions from the coal unloading/storage and transfer (**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 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 2Q .0508(f)]

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

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of this source for any visible emissions above normal. If visible emission from this source is observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission sources in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes 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), kept on site, and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions.

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 by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

- a. The Permittee shall employ wet suppression on coal unloading, front end loader operations, coal storage pile load in/out, and wind erosion coal piles. In addition; the Permittee shall maintain partial enclosures on conveyors. [15A NCAC 2D .0530]

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

- b. Particulate matter emissions from the coal piles and unloading shall be controlled by wet suppression. To assure compliance, the Permittee shall perform inspections and maintenance on the wet suppression 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 must include a monthly external visual 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.

- 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 Permittee shall perform a monthly visual inspection along with maintenance as appropriate on the partially enclosed conveyors to ensure covers are structurally sound and in good repair. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the conveyor enclosures are not inspected and maintained.

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

- e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format), kept 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 action or inspection;
 - iii. a report of any maintenance performed on any wet suppression system and conveyor enclosure; 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. Within 30 days of a written request from the DAQ, the Permittee shall submit a report of any maintenance performed on a wet suppression system or conveyor enclosure.
- g. The Permittee shall submit a summary report of monitoring and recordkeeping activities by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each

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

D. One 7100 gallons aqueous ammonia storage tank (ID No. ES-15)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Toxic Air Pollutants	See Section 2.2 A.1. State-only requirement	15A NCAC 2D .1100
Toxic Air Pollutants	See Section 2.2 A.3. State-only requirement	15A NCAC 2Q .0711

E. One diesel fired 340 hp emergency fire pump (ID No. ES-1)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	2.3 pound per million Btu heat input	15A NCAC 2D .0516
Visible Emissions	20 percent opacity	15A NCAC 2D .0521
Hazardous Air Pollutants	See Section 2.1 E.3.	15A NCAC 2D .1111 [40 CFR 63 Subpart ZZZZ]
Toxic Air Pollutants	See Section 2.2 A.1.	15A NCAC 2D .1100 State-only requirement
Toxic Air Pollutants	See Section 2.2 A.3.	15A NCAC 2Q .0711 State-only requirement

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

- a. Emissions of sulfur dioxide, when burning diesel fuel in this source (**ID No. ES-1**), shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

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

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

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from burning of diesel fuel in this source (**ID No. ES-1**).

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

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

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

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

noncompliance with 15A NCAC 2D .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from firing of diesel fuel in this source (**ID No. ES-1**).

3. 15A NCAC 2D .1111 MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY [40 CFR 63 SUBPART ZZZZ]

- a. The Permittee shall comply by May 3, 2013, with all applicable provisions, including the requirements for emission limitations, testing, monitoring, record keeping, notification, and reporting, contained in Environmental Management Commission Standard 15A NCAC 2D .1111 "Maximum Achievable Control Technology" as promulgated in 40 CFR Part 63 Subpart ZZZZ "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)" including Subpart A "General Provisions." [40 CFR 63.6595(a)(1)]

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

A. Facility-wide

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
toxic air pollutants	See Section 2.2 A.1.	15A NCAC 2D .1100 State-only Requirement
HAP	See Section 2.2 A.2.	15A NCAC 2Q .0317 [MACT Avoidance]
toxic air pollutants	See Section 2.2 A.3.	15A NCAC 2Q .0700 State-only Requirement

State-only Requirement

1. 15A NCAC 2D .1100 CONTROL OF TOXIC AIR POLLUTANTS

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

Emission Sources	Pollutants	Emission Rates
Boilers (ID Nos. ES-1A and ES-1B) Combined Emission Rate	Acrolein	0.064 lb/hr
	Ammonia	11.4 lb/hr
	Arsenic and inorganic arsenic compounds	83.2 lb/yr
	Benzene	1,970 lb/yr
	Benzo(a)pyrene	9.79 lb/yr
	Beryllium	4.1 lbs/yr
	Cadmium	15.8 lbs/yr
	Chlorine	0.77 lb/hr 18.6 lb/day
	Soluble chromate compounds, as chromium (VI) equivalent	0.036 lb/day
	Hydrogen chloride	3.34 lbs/hr

	Formaldehyde	1.89 lb/hr
	Manganese and compounds	3.1 lb/day
	Mercury, vapor	0.38 lb/day
	Nickel, soluble compounds, as nickel	0.34 lb/day
	Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8	6 lbs/yr
	Vinyl chloride	67.4 lbs/yr
Emergency Fire Pump (ID No. ES-1)	Acrolein	5.75×10^{-5} lb/hr
	Benzene	2.91×10^{-4} lb/yr
	Benzo(a)pyrene	5.86×10^{-8} lb/yr
	Soluble chromate compounds, as chromium (VI) equivalent	4.49×10^{-5} lb/day
	Formaldehyde	7.36×10^{-4} lb/hr
Aqueous Ammonia Storage Tank (ID No. ES-15)	Ammonia	0.99 lb/hr

Testing [15A NCAC 2D .1105]

- b. No testing is required.

Monitoring/Recordkeeping/Reporting [15A NCAC 2D .1105]

- c. The maximum hours of operation for emergency fire pump (ID No. ES-1) shall not exceed 1,000 hours per rolling consecutive 12-month period. The Permittee shall record monthly and total annually the hours of operation for this fire pump. The Permittee shall make these records available upon request by the DAQ.

**2. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY**

- a. In order to avoid applicability of this regulation, the total hazardous air pollutant (HAP) emissions from the facility shall be less than 10 tons of any single HAP and 25 tons of combined HAP per consecutive 12-month period. [15A NCAC 2Q .0317]

Testing [15A NCAC 2D .2601]

- b. Under the provisions of NCGS 143-215.108, the Permittee shall develop emissions factors for hydrochloric acid (HCl) and chlorine in pounds per million Btu by testing one of the boilers (ID Nos. ES-1A and ES-1B) for each fuel that will be combusted in either boiler. A testing protocol must be approved by the DAQ. A testing protocol must be approved by the DAQ. Emissions testing and reporting requirements can be found in Section 3 - General Condition JJ. Testing shall be completed and the results submitted within the later of 180 days after the effective date of this permit or 180 days after the Permittee commences the commercial use of that fuel, provided that in either case an alternate date may be approved by the DAQ. Testing shall be performed in such a way that allows developing individual emissions factors for use in Section 2.2 A.3.c. below.

The submittal of the test results shall be deemed a request by the Permittee that the permit be modified to include the new information.

If this test is not performed or the emissions factors of HCl and chlorine for each fuel are not developed, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

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

- c. Calculations of emissions of HCl and chlorine shall be made at the end of each month and recorded monthly in a logbook, in accordance with the following formulas.

HCl, tons/month =

$$\frac{(((\text{Monthly non-CISWI subject Wood Usage in lbs} \times 5,000 \text{ Btu/lb}) \times (7.77\text{E-}03 \text{ lb/million Btu})) + ((\text{Monthly Coal Usage in lbs} \times 13,320 \text{ Btu/lb}) \times (7.50\text{E-}02 \text{ lb/million Btu})))}{(2,000 \text{ lbs/ton})}$$

Chlorine, tons/month =

$$\frac{(((\text{Monthly non-CISWI subject Wood Usage in lbs} \times 5,000 \text{ Btu/lb}) \times (1.80\text{E-}03 \text{ lb/million Btu})) + ((\text{Monthly Coal Usage in lbs} \times 13,320 \text{ Btu/lb}) \times (4.00\text{E-}02 \text{ lb/million Btu})) + ((\text{Monthly Tire-Derived Fuel Usage in lbs} \times 13,650 \text{ Btu/lb}) \times (6.00\text{E-}02 \text{ lb/million Btu})) + ((\text{Monthly No. 2 Fuel Oil Usage in gallons} \times 140,000 \text{ Btu/gallons}) \times (1.30\text{E-}02 \text{ lb/million Btu})) + ((\text{Monthly No. 4 Fuel Oil Usage in gallons} \times 150,000 \text{ Btu/lb}) \times (1.30\text{E-}02 \text{ lb/million Btu})))}{(2,000 \text{ lbs/ton})}$$

- d. The DAQ shall revise the air quality permit 05543T18 to include the DAQ-approved emissions factors for HCl and chlorine, developed in Section 2.2 A.2.b. above, in accordance with the provision in 15A NCAC 2Q .0514 “Administrative Permit Amendments.”

In addition, the Permittee can request to DAQ to revise the air quality permit to update the heating values of any fuels in this Section 2.2 A.2.c. after DAQ review and approval, in accordance with the provision in 15A NCAC 2Q .0514 “Administrative Permit Amendments.”

If the required records are not maintained in a logbook or the emissions of HCl or chlorine exceed 10 tons for any consecutive 12-month period each, or the permit application is not submitted to administratively revise the air quality permit 05543T18 to include the DAQ-approved emissions factors for HCl and chlorine, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

- e. Prior to burning pelletized paper or flyash briquettes in boilers (**ID Nos. ES-1A and ES-1B**), the Permittee shall request a modification of the permit and provide to DAQ for its review and approval such data as may be necessary to calculate the emissions of HCl and chlorine. The Permittee shall not burn pelletized paper or flyash briquettes in boilers (**ID Nos. ES-1A and ES-1B**), until such data and calculation methodology are approved by DAQ.
- f. Permittee shall keep a record of the applicability determination on site at the source for a period of five years after the determination, or until the source becomes an affected source. The determination shall include the analysis demonstrating why the Permittee believes the source is unaffected pursuant to 40 CFR Part 63.10(b)(3). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the records are not maintained.

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

- g. Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
- i. The monthly HCl and chlorine emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.
- All instances of deviations from the requirements of this permit must be clearly identified.

State-only Requirement

3. 15A NCAC 2Q .0711: EMISSION RATES REQUIRING A PERMIT

- a. Pursuant to 15A NCAC 2Q .0711, for each of the below listed toxic air pollutants (TAPs), the Permittee has made a demonstration that facility-wide actual emissions do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 2Q .0711. The facility shall be operated and maintained in such a manner that emissions of any listed toxic air pollutant(s) from the facility, including fugitive emissions, will not exceed the TPERs specified in 15A NCAC 2Q .0711.
- i. A permit to emit any of the below listed TAPs shall be required for this facility if actual emissions from all sources will become greater than the corresponding TPER.

- ii. PRIOR to exceeding any of these listed TPERs, the Permittee shall be responsible for obtaining a permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 2D .1100.
- iii. In accordance with the approved application, the Permittee shall maintain records of operational information demonstrating that the TAP emissions do not exceed the TPER(s) as listed below:

Pollutant and Application Date	TPERs Limitations			
	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
acetaldehyde (75-07-0)				6.8
1,3-butadiene (106-99-0)	11			
carbon tetrachloride (56-23-5)	460			
chlorobenzene (108-90-7)		46		
chloroform (67-66-3)	290			
di(2-ethylhexyl)phthalate (117-81-7)		0.63		
ethylene dichloride (107-06-2)	260			
methylene chloride (75-09-2)	1600		0.39	
methyl chloroform (71-55-6)		250		64
methyl ethyl ketone (78-93-3)		78		22.4
perchloroethylene (127-18-4)	13000			
pentachlorophenol (87-86-5)		0.063	0.0064	
phenol (108-95-2)			0.24	
polychlorinated biphenyls (1336-36-3)	5.6			
styrene (100-42-5)			2.7	
toluene (108-88-3)		98		14.4
trichloroethylene (79-01-6)	4000			
trichlorofluoromethane (75-69-4)			140	
xylene (1330-20-7)		57		16.4

- b. The Permittee is allowed to burn the following as supplemental fuels in the boilers, provided that the wastes are generated at this plant-site and are combusted under 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 of steam flow not to exceed 35,000 gallons per year.

- c. The Permittee may use the following for normal start-up of the boilers, 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.
- d. The Permittee may burn 'regenerated' spent cation/anion resins [spent demineralizer resin] in the boilers once the following conditions have been met:
 - i. Testing adequate to determine the quantity and type of any toxic materials listed in NCAC 2Q .0711 shall be performed. The results shall be forwarded to the Fayetteville Regional Supervisor, Division of Air Quality.
 - ii. The Permittee shall request and obtain written permission from the Fayetteville 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 the boiler(s) 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.
- e. The tire derived fuel feed rate shall not exceed 40% of the heat input of each boiler.
- f. 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 the boilers shall be less than the emissions from the firing of coal in the boilers. To ensure enforceability of this limit, a total of no more than 36 tons per day of flyash briquettes will be fired in the boiler.

Monitoring/Recordkeeping

- 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 type of materials used when plant wastes are used to start-up the boilers.
- 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 the boiler,
 - v. feed rate of coal to the boiler, 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 the boiler,
 - iv. feed rate of coal to the boiler, 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 the boiler,
 - v. feed rate of coal to the boiler, 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, and

- ii. daily recordkeeping is only required on days in which briquettes are burned.

Reporting

- l. 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.
- m. Prior to combustion for the first time, the Permittee shall submit an analysis of the used oil and unadulterated oil equivalency determination for approval.
- n. 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.
- o. 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 the boilers.

2.3 - Phase II Acid Rain Permit Requirements

ORIS code: 10382

Effective: January 1, 2006 through December 31, 2010

A. Statement of Basis

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

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

		2006	2007	2008	2009	2010
Unit 1 (ES-1A)	SO ₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73.	NA*	NA*	NA*	NA*	NA*
Unit 2 (ES-1B)		NA**				
	NO _x limit	NA**				

* SO₂ allowances were not allocated by U.S. EPA for these units under 40 CFR part 72.

** Does not apply for units that are not subject to an Acid Rain emissions limit for SO₂ under Phase I or Phase II of the CAA as specified in 40 CFR 76.1(a).

C. Comments, Notes and Justifications

None.

D. Permit Application (attached)

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

2.4 - Clean Air Interstate Rule (CAIR) Permit Requirements

ORIS code: 10382

The following sources are affected CAIR units:

PERMITTED SOURCE ID No.	CAIR ID No.
ES-Unit 1A	Unit 1
ES-Unit 1B	Unit 2

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

- The total nitrogen oxide (NO_x) emissions from the affected CAIR units listed above at the Lumberton Energy, LLC shall not exceed, except as provided in 15A NCAC 2D .2408: [15A NCAC 2D .2403]
 - 121 tons annually for 2009-2014
 - 103 tons annually for 2015 and laterIf any of the CAIR sources listed above is a new source for which allocations have not been included in the table in 15A NCAC 2D .2403, the CAIR designated representative may submit a request to be allocated CAIR NO_x allowances for those sources using the procedures in 40 CFR 96.142(c)(2) and (3).
- The affected CAIR NO_x sources shall comply with the requirements of 15A NCAC 2D .2400 using the trading program and banking set out in 40 CFR Part 96. [15A NCAC 2D .2408]
- The owner or operator of any unit or source covered under 15A NCAC 2D .2403 shall be subject to the provisions of 40 CFR 96.106(f). [15A NCAC 2D .2403]

Monitoring/Recordkeeping/Reporting [15A NCAC 2D .2403 and 15A NCAC 2D .2407(a)(1)]

- The Permittee shall comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR 96.106(b) and (e), and 40 CFR 96 Subpart HH for each CAIR NO_x unit.
- The emissions of nitrogen oxides of a CAIR NO_x source shall not exceed the number of allowances that it has in its compliance account established and administered under Rule .2408 of this Section.
- The emissions measurements recorded and reported according to 40 CFR Part 96 Subpart HH shall be used to determine compliance by each CAIR NO_x source with its emissions limitation according to 40 CFR 96.106(c) including 96.106(c)(5) and (6).
- The provisions of 40 CFR 96.106(d) shall be used for excess emissions.

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

- Ozone season NO_x emissions from the affected CAIR units listed above at the Lumberton Energy, LLC shall not exceed, except as provided in 15A NCAC 2D .2408: [15A NCAC 2D .2405(a)(1) and (b)]
 - 46 tons during the ozone season for 2009-2014; and
 - 39 tons during the ozone season for 2015 and laterThe ozone season shall be defined as the period of time extending from May 1st to September 30th of each calendar year. If any of the CAIR sources listed above is a new source for which allocations have not been included in the table in 15A NCAC 2D .2405, the CAIR designated representative may submit a request to be allocated CAIR NO_x ozone season allowances for those sources using the procedures in 40 CFR 96.342(c)(2) and (3).
- The affected CAIR NO_x Ozone Season sources shall comply with the requirements of 15A NCAC 2D .2400 using the trading program and banking set out in 40 CFR Part 96. [15A NCAC 2D .2408]
- The owner or operator of any unit or source covered under 15A NCAC 2D .2405 shall be subject to the provisions of 40 CFR 96.306(f). [15A NCAC 2D .2405]

Monitoring/Recordkeeping/Reporting [15A NCAC 2D .2405 and 15A NCAC 2D .2407(a)(3)]

- The Permittee shall comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR 96.306(b) and (e), and 40 CFR 96 Subpart HHHH for each CAIR Ozone Season NO_x unit.

5. The nitrogen oxide ozone season emissions of a CAIR NO_x Ozone Season source shall not exceed the number of allowances that it has in its compliance account established and administered under 15A NCAC 2D .2408. For purposes of making deductions for excess emissions for the ozone season in 2008 under the NO_x SIP Call (15A NCAC 2D .1400), the Administrator shall deduct allowances allocated under this Rule (15A NCAC 2D .2405) for the ozone season in 2009.
6. The emissions measurements recorded and reported according to 40 CFR Part 96 Subpart HHHH shall be used to determine compliance by each CAIR NO_x Ozone Season source with its emissions limitation according to 40 CFR 96.306(c) including 96.306(c)(5) and (6).
7. The provisions of 40 CFR 96.306(d) shall be used for excess emissions.

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

1. The annual allocation of sulfur dioxide allowances shall be determined by EPA. The allocations for CAIR SO₂ units are listed in the Table below:

CAIR ID No.	ALLOCATION FOR 2000-2009	ALLOCATION FOR 2010 AND LATER
Unit 1	None	None
Unit 2	None	None

2. The affected CAIR SO₂ sources shall comply with the requirements of 15A NCAC 2D .2400 using the trading program and banking set out in 40 CFR Part 96. [15A NCAC 2D .2408]
3. The owner or operator of any unit or source covered under 15A NCAC 2D .2404 shall be subject to the provisions of 40 CFR 96.206(f). [15A NCAC 2D .2404]

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

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

D. CAIR Permit Application

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

CAIR Permit Application dated February 17, 2010.

SECTION 3 - GENERAL CONDITIONS

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

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

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A

NCAC 2D and 2Q.

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

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

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

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

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

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

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

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

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

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

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent

operation of its associated air pollution control device(s) and appurtenances.

G. Permit Modifications

1. Administrative Permit Amendments [15A NCAC 2Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 2Q .0524 and 2Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q.0524 and 2Q .0505.
3. Minor Permit Modifications [15A NCAC 2Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.
4. Significant Permit Modifications [15A NCAC 2Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.
5. Reopening for Cause [15A NCAC 2Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

H. Changes Not Requiring Permit Modifications

1. Reporting Requirements
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
 - a. changes in the information submitted in the application;
 - b. changes that modify equipment or processes; or
 - c. changes in the quantity or quality of materials processed.

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

2. Section 502(b)(10) Changes [15A NCAC 2Q .0523(a)]
 - a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
 - b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;
 - iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
 - c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.
 - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 2Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 2Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 2D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision

pursuant to 15A NCAC 2Q .0523(c).

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

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

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

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

Excess Emissions

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

Permit Deviations

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

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

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

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

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

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

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the

control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

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

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

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

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

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

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

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

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

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

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

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

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

shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 2D.

If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual

conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.

4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
 - a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
 - (1) Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
 - (2) Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
 - (3) Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
 - b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 2D .2600 has precedence over all other tests.

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

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

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

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

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

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

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

NN. **Specific Permit Modifications** [15A NCAC 2Q.0501 and .0523]

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

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

OO. **Third Party Participation and EPA Review** [15A NCAC 2Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environment Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 2Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

List of Acronyms

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