



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

Michael F. Easley, Governor

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

October 15, 2007

Mr. Paul A. Garrett
Plant Manager
Craven County Wood Energy, L.P.
201 Executive Parkway
New Bern, North Carolina 28562

SUBJECT: Air Quality Permit No. 06419T19
Facility ID: 2500158
Craven County Wood Energy, L.P.
New Bern, North Carolina
Craven County
Fee Class: Title V

Dear Mr. Garrett:

In accordance with your completed Air Quality Permit Application for a 2Q .0316 modification to your Title V permit received April 13, 2006, we are forwarding herewith Air Quality Permit No. **06419T19** to Craven County Wood Energy, L.P., NCSR 1225 at US Highway 70, New Bern, North Carolina, authorizing the 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 have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3 of Part I. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

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

Permitting Section

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

One
North Carolina
Naturally

An Equal Opportunity/Affirmative Action Employer – 50% Recycled/10% Post Consumer Paper

Mr. Paul A. Garrett

October 15, 2007

Page 2

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.

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 October 15, 2007 to September 30, 2008 is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Rahul P. Thaker, P.E., QEP, at (919) 715-6238.

Mr. Paul A. Garrett
October 15, 2007

Sincerely yours,

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

Enclosure

c: Ray Bonner/Craven County Wood Energy, LP
Washington Regional Office
Central Files

**ATTACHMENT
Air Permit 06419T19**

Insignificant Activities at the Facility as per as per 15A NCAC 2Q .0503(8)

Emission Source I.D.	Emission Source Description	Insignificant Activity Applicability
I1	propane storage tank (14,000 gallons)	PTE <5 tpy each for criteria pollutants and PTE <1000 lbs/yr for single HAP
I2	sulfuric acid storage tank	PTE <5 tpy each for criteria pollutants and PTE <1000 lbs/yr for single HAP
I3	Betz Cor-Trol OS 7780 storage tank	PTE <5 tpy each for criteria pollutants and PTE <1000 lbs/yr for single HAP
I4	Betz PY 5200 storage tank	PTE <5 tpy each for criteria pollutants and PTE <1000 lbs/yr for single HAP
I5	Betz PY 5206 storage tank	PTE <5 tpy each for criteria pollutants and PTE <1000 lbs/yr for single HAP
I6	Betz Optisperse 78501 storage tank	PTE <5 tpy each for criteria pollutants and PTE <1000 lbs/yr for single HAP
I7	sodium hypochlorite storage tank	PTE <5 tpy each for criteria pollutants and PTE <1000 lbs/yr for single HAP
I8	fuel oil storage tank	PTE <5 tpy each for criteria pollutants and PTE <1000 lbs/yr for single HAP
I9	gasoline storage tank	PTE <5 tpy each for criteria pollutants and PTE <1000 lbs/yr for single HAP
I10	diesel-fired welding unit	PTE <5 tpy each for criteria pollutants and PTE <1000 lbs/yr for single HAP
I11	diesel-fired fire pump (250 hp)	PTE <5 tpy each for criteria pollutants and PTE <1000 lbs/yr for single HAP
I12	diesel fired emergency generator (175 kw)	PTE <5 tpy each for criteria pollutants and PTE <1000 lbs/yr for single HAP

ATTACHMENT
Air Permit 06419T19

The following table summarizes changes made to the previous permit (No. 06419T18):

Old Page No.	New Page No.	Condition No.	<u>Changes</u>
13	13	Section 2.1 A.1.b.	Include maximum weight percent for cotton waste as 50%.
15 through 22	15 through 22	Section 3	Include the latest set of General Conditions.



Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
06419T19	06419T18	October 15, 2007	September 30, 2008

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: **Craven County Wood Energy, L.P.**
Facility ID: **2500158**

Facility Site Location: **NCSR 1225 at US Highway 70**
City, County, State, Zip: **New Bern, Craven County, North Carolina 28562**

Mailing Address: **201 Executive Parkway**
City, State, Zip: **New Bern, North Carolina 28562**

Application Number: **2500158.06B**
Complete Application Date: **April 13, 2006**

Primary SIC Code: **4911**

Division of Air Quality,
Regional Office Address: **Washington Regional Office**
North Carolina Division of Air Quality
943 Washington Square Mall
Washington, North Carolina 27889

Permit issued this the October 15, 2007.

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

Table Of Contents

PART I

- SECTION 1: PERMITTED EMISSION SOURCE(S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S) AND APPURTENANCES
- SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS
- 2.1- Emission Sources Specific Limitations and Conditions
(Including specific requirements, testing, monitoring, record keeping, and reporting requirements)
 - 2.2- Multiple Emission Source(s) Specific Limitations and Conditions
(Including specific requirements, testing, monitoring, record keeping, and reporting requirements)
 - 2.3- Permit Shield
- SECTION 3: GENERAL PERMIT CONDITIONS
- ATTACHMENT
List of Acronyms

PART II

This permit does not include a Part II.

PART I

The Division of Air Quality (DAQ), the United States Environmental Protection Agency (EPA), and citizens as defined under the Federal Clean Air Act have the authority to enforce the terms, conditions, and limitations contained in Part I of this permit unless otherwise specified.

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

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

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

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
F6A-1 PSD	Bottom Ash Handling System	N/A	None
F6A-2 PSD	Fly Ash Handling System	N/A	None
FA PSD	Wood handling and storage	N/A	None
ES5A NSPS PSD	boiler (666 million Btu per hour heat input) fired on: woodwaste consisting of: clean wood, railroad ties (50% by weight maximum), plywood trimmings, and particle board; Weyerhaeuser sludge; brooder house poultry waste (10% by weight maximum); natural gas; propane; used oil ; and cotton waste (50 % by weight maximum)	CD5A-1 CD5A-2	Multi-cyclone with 330 nine inch tubes Electrostatic Precipitator (122,000 square feet of collection plate area)

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, record keeping, and reporting requirements as specified herein:

A. ^aBottom Ash Handling System (ID No. F6A-1)

^aFly Ash Handling System (ID No. F6A-2)

^bwood handling and storage (ID No. FA)

^cBoiler (666 million Btu per hour heat input; ID No. ES5A) burning:

woodwaste (clean wood, railroad ties [50% by weight maximum], plywood trimmings, and particle board),

Weyerhaeuser sludge,

brooder house poultry waste (10% by weight maximum),

natural gas,

propane,

used oil, and

cotton waste (50% by weight maximum).

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM ^c	POS - firing wood only or in combination with other fuels $E_c = [(0.274)(Q_w) + (0.202)(Q_o)] / Q_t$ where, E_c = emission limit (lb/million Btu) Q_w = actual wood heat input rate (million Btu/hour) Q_o = actual other fuel heat input rate (million Btu/hr) $Q_t = Q_w + Q_o$	15A NCAC 2D .0504
PM ^c	AOS - firing natural gas or propane only 0.202 pounds per million Btu heat input Affected facility: Boiler (ID No. ES5A)	15A NCAC 2D .0503
PM ^{ab}	$E = 4.10P^{0.67}$ for units with process weight rates less than 30 tons per hour and $E = 55.0(P)^{-11} - 40$ for units with process weight rates greater than 30 tons per hour where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
SO ₂ ^c	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
NOx ^c	0.8 pounds per million Btu heat input Affected facility: Boiler (ID No. ES5A)	15A NCAC 2D .0519(b)
VE ^{ab}	20 percent opacity	15A NCAC 2D .0521(d)
PM ^c	0.10 lbs per million Btu heat input particulate matter	15A NCAC 2D .0524
NOx ^c	Annual capacity factor for natural gas/propane shall not exceed 10 percent (0.10)	(40 CFR 60.40b, Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units (60.40b--60.49b))
VE ^c	20 percent opacity	

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM ^{abc} , VOC ^c , VE ^a , NOx ^c , CO ^c	For PSD purposes, "Best Available Control Technology" (BACT) permit limitations shall not be exceeded.	15A NCAC 2D .0530
toxic air pollutants ^c	Permit limits for toxic air pollutants shall not be exceeded. Facility-wide Affected Emission Sources State-enforceable only.	15A NCAC 2D .1100
odor ^{ab}	Odorous emissions must be controlled - Facility Wide Affected Emission Sources State-enforceable only	15A NCAC 2D .1806

a, b, c, etc, relate emission sources to applicable regulations

1. **ALTERNATIVE OPERATING SCENARIOS** [15A NCAC 2Q .0508(p)]
The Permittee, contemporaneously with making a change from one alternate operating scenario to another, shall record in a logbook (written or electronic format) the scenario under which it is operating. [15A NCAC 2Q .0508(p)]

AOS-firing propane and/or natural gas

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

Regulatory Requirements

- a. Emissions of particulate matter from the combustion of propane and/or natural gas that are discharged from this source into the atmosphere shall not exceed 0.202 pounds per million Btu heat input. [15A NCAC 2D .0503(c)]

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

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

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

- c. No monitoring, record keeping, or reporting is required for particulate emissions from the firing of natural gas and/or propane in the wood waste-fired boiler (**ID No. ES5A**).

POS -firing wood fuel only or in combination with other fuels

3. **15A NCAC 2D .0504: PARTICULATES FROM WOODBURNING INDIRECT HEAT EXCHANGERS**

Regulatory Requirements

- a. Emissions of particulate matter from this source shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0504(f)]

$$E = \frac{[(0.274Q_w) + (0.202Q_o)]}{(Q_w + Q_o)} \text{ pounds per million Btu}$$

where: Q_w = actual wood heat input rate in Btu/hr
Q_o = actual other fuel heat input rate in Btu/hr

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

- b. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limit above by testing the waste wood fuel-fired boiler (**ID Nos. ES5A**) for particulate matter with a testing protocol approved by the DAQ. Details of the emissions testing and reporting requirements can be found in Section 3 - General Condition JJ. Testing shall be performed annually. 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 .0504.

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

- c. Particulate matter emissions from the wood waste-fired boiler (**ID No. ES5A**) shall be controlled by a multi-cyclone (**ID No. CD5A-1**), which has 330 nine-inch tubes, in series with an electrostatic precipitator (**ID No. CD5A-2**) which has 122,000 square feet of collection plate area. To ensure compliance and effective operation, the Permittee shall perform inspections and maintenance as recommended by the manufacturers. In addition to the manufacturers' inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendation, as a minimum, the inspection and maintenance requirement shall include:
- i. a monthly external visual inspection of critical components of the electrostatic precipitator such as rappers, ash screw conveyor, the system duct work, and the material collection units.
 - ii. a weekly check for any equipment that does not generate an alarm in the turned-off state, to ensure it is switched on; and
 - iii. an annual internal inspection of the multi-cyclone's structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0504 if the multi-cyclone, the electrostatic precipitator, and duct work are not inspected and maintained.

Recordkeeping

- d. The results of inspection and maintenance activities, discussed above for the electrostatic precipitator, shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative of DAQ upon request. The logbook shall record the following:
- i. the date of each recorded action;
 - ii. the results of each inspection; and
 - iii. corrective actions taken.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0504 if these records are not maintained.

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

- e. The Permittee shall submit the results of any maintenance performed on the multi-cyclone (**ID No. CD5A-1**), the electrostatic precipitator (**ID No. CD5A-2**), and the wood waste-fired boiler (**ID No. ES5A**) within 30 days of a written request by the DAQ. The Permittee shall submit a summary report of monitoring and record keeping 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 manufacturers' recommendations for maintenance of the multi-cyclone and the electrostatic precipitator must also be clearly identified.

^{ab}4. 15A NCAC 2D .0515: PARTICULATE EMISSIONS FROM MISCELLANEOUS INDUSTRIAL PROCESSES**Regulatory Requirements**

- a. Emissions of particulate matter that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)].
- $$E = 4.10 \times P^{0.67} \quad \text{for units with process weight rate less than 30 tons per hour}$$
- Where E = allowable emission rate in pounds per hour calculated to three significant figures
P = process weight rate in tons per hour
- and $E = 55.0(P)^{.11} - 40$ for units with process weight rates greater than 30 tons per hour
- Where E = allowable emission rate in pounds per hour calculated to three significant figures
P = process weight rate in tons per hour
- Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(3) and General Condition JJ found in Section 3. If the results of the test performed exceed the limits given in Section 2.1 A.4.a. (above) for particulate matter, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Bottom ash and fly ash shall be conveyed in the ash handling systems (**ID Nos. F6A-1 and F6A-2**) and the wood waste shall be conveyed from the hammermill in the wood reclaim conveyor to storage areas via

enclosed systems such that emissions are minimized. For particulate emissions, the Permittee shall utilize the following dust suppression techniques:

- i. water quenching of bottom ash after discharge from the grate of the boiler;
 - ii. enclosed dust collectors and water suppression system on fly ash handling system (**ID No. F6A-2**), and
 - iii. partial enclosed conveyors and transfer towers wherein all transfer points are closed, on the wood reclaim conveyor.
- d. To comply with the provisions of the permit and ensure compliance with the limitations prescribed in 15A NCAC 2D .0515, the Permittee shall establish an inspection and maintenance schedule/checklist and perform such inspections and maintenance on the ash handling systems (**ID Nos. F6A-1 and F6A-2**), the hammer mill, and the wood reclaim conveyor as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include:
- i. a monthly external inspection of the enclosed work area around the hammermill, enclosed conveyors, and transfer towers to ensure that covers are properly fitted;
 - ii. a monthly external inspection of the bottom ash system to ensure structural integrity; and
 - iii. a monthly external inspection of the water spray dust suppression system on the fly ash handling system.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ash handling systems, the hammer mill, and the wood reclaim conveyor are not inspected and maintained.

- e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date of each recorded action;
 - ii. the results of each inspection; and
 - iii. corrective actions taken.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

- f. The Permittee shall submit a report of maintenance performed on the ash handling systems (**ID Nos. F6A-1 and F6A-2**), the hammer mill, and the wood reclaim conveyor within 30 days of a written request by the DAQ. The Permittee shall submit a summary report of monitoring and record keeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

5. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

Regulatory Requirements

- a. Emissions of sulfur dioxide from the boiler 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(a)].

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1. A.5.a., above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring, record keeping, or reporting is required.

6. 15A NCAC 2D .0519: CONTROL OF NITROGEN DIOXIDE AND NITROGEN OXIDE EMISSIONS

Regulatory Requirements

- a. Emissions of nitrogen oxides shall not exceed 0.8 pounds per million Btu of heat input from any gas-fired boiler with a capacity of 250 million Btu per hour or more

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(7) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1. A.6.a., above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

No monitoring, record keeping, or reporting is required for emissions of nitrogen oxide or nitrogen dioxide from the firing of natural gas and/or propane in the boiler (**ID No. ES5A**).

^{ab7.} 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

Regulatory Requirements

- a. Visible emissions from each emission source, except the boiler, that were manufactured after July 1, 1971 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. **Testing** [15A NCAC 2D .0501(c)(8)]

If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test exceed the limit given in Section 2.1. A.7.a. (above), the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To ensure compliance, once a week the Permittee shall observe the emission points for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following the effective date of the permit. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 A.7.a. above. If the demonstration in (b) 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 for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:

- i. the date of each recorded action;
- ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
- iii. the results of any corrective actions performed.

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

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

- e. The Permittee shall submit a summary report of monitoring and record keeping 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.

^{c8.} 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS (NSPS for Industrial-Commercial-Institutional Steam Generating Units as promulgated in 40 CFR Part 60 (60.40b--60.49b))

Regulatory Requirements

- a. As specifically stated in 40 CFR 60.43b(c): " ... no owner or operator of an affected facility that combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases that contain **particulate matter** in excess of **0.10 lb/million Btu heat input** if the affected facility has an annual capacity factor greater than 30 percent (0.30) for wood."

- b. As specifically stated in 40 CFR 60.43b(f): "... no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than **20 percent opacity** (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity."

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

- c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits, above by testing the wood waste-fired boiler (**ID No. ES5A**) for particulate matter utilizing EPA Reference Method 5, 40 CFR 60, Appendix A and in accordance with a testing protocol approved by the Division of Air Quality. Details of the emissions testing and reporting requirements can be found in Section 3 - General Condition JJ of the permit. Testing shall be performed annually. If the results of this test for particulate matter are above the limits identified in Section 2.1. A.8.a., above (or 0.10 lb/million Btu heat input), the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- d. 40 CFR 60.48b-The Permittee shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.

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

- e. The results of the monitoring for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.
- f. The Permittee shall record and maintain records of the quantities of each fuel (wood, natural gas/propane) combusted each day and these records shall be made available to an authorized representative of DAQ upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the amounts of each fuel combusted during each day are not recorded.
- g. At the end of each calendar month, the Permittee shall calculate the annual capacity factor for each fuel (wood, natural gas/propane) combusted in the boiler. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the annual capacity factor for natural gas/propane during the previous month is not determined and recorded.
- h. To ensure compliance with 15A NCAC 2d .0524 and avoid a limitation for emissions of nitrogen oxides, the Permittee shall evaluate on a monthly basis, the annual capacity factor for propane/natural gas to assure that such factors do not exceed 10 percent. If the annual capacity factors for propane/natural gas and are observed to exceed 10 percent, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0524.

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

- i. The Permittee shall submit a summary report of monitoring and record keeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. In addition, the Permittee shall report: any excess opacity emission reports as measured by the continuous opacity monitor (COM), by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year of each calendar year for the preceding six-month period between January and June. If there are no excess emissions during the calendar quarter, the Permittee shall submit a statement indicating that no excess emissions occurred during the reporting period.

abc9. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

Regulatory Requirement

- a. For PSD purposes, the following "Best Available Control Technology" (BACT) permit limitations shall not be exceeded:

Source	Pollutants	Emission Limits
Wood Waste-Fired Boiler (ID No. ES5A)	PM/PM ₁₀	0.041 lbs/million Btu heat input
	Volatile Organic Compounds	0.077 lbs/million Btu heat input
	Carbon Monoxide	0.66 lbs/million Btu
	Nitrogen Oxides	0.35 lbs/million Btu
wood handling and storage	PM	work practice and equipment design
Bottom ash handling system (ID No. F6A-1)	Opacity	0 percent
Fly ash handling system (ID No. F6A-2)	Opacity	0 percent

From the wood waste-fired boiler

Particulate Matter

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

- b. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits, above by testing the wood waste-fired boiler (**ID No. ES5A**) for particulate matter utilizing EPA Reference Method 5, 40 CFR 60, Appendix A and in accordance with a testing protocol approved by the Division of Air Quality. Details of the emissions testing and reporting requirements can be found in Section 3 - General Condition JJ of the permit. Testing shall be performed on an annual basis. If the results of this test for particulate matter are above the limits identified in Section 2.1.A.8.a. above (or 0.041 lb/million Btu heat input), the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

Nitrogen Oxides, Volatile Organic Compounds, and Carbon Monoxide

Testing [15A NCAC 2D .0501(c)(17)]

- c. If an emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(7) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1. A.9.a., above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- d. Particulate matter emissions from the wood waste-fired boiler (**ID No. ES5A**) shall be controlled by a multi-cyclone (**ID No. CD5A-1**), which has 330 nine (9) inch tubes, in series with an electrostatic precipitator (**ID No. CD5A-2**) that has 122,000 square feet of collection plate area. To ensure compliance and effective operation, the Permittee shall perform inspections and maintenance as recommended by the manufacturers. In addition to the manufacturers' inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendation, as a minimum, the inspection and maintenance requirement shall include:
 - i. a monthly external visual inspection of critical components of the electrostatic precipitator such as rappers, ash screw conveyor, the system duct work, and the material collection units.
 - ii. a weekly check for any equipment that does not generate an alarm in the turned-off state, to ensure it is switched on; and
 - iii. an annual internal inspection of the multi-cyclone's structural integrity.
 The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0504 if the multi-cyclone, the electrostatic precipitator, and ductwork are not inspected and maintained.

From wood handling and storage

- e. Emissions of particulate matter shall be controlled as follows:
 - i. wood deliveries shall be made in a covered truck and discharged into one of two hydraulic dumpers equipped with sidewall curtains;

- ii. the wood reclaim conveyor shall be covered and all transfer points shall be enclosed;
 - iii. wood unloading onto storage pile shall utilize enclosed telescoping chutes kept as close to receiving pile as possible when dumping;
 - iv. For traffic on wood storage pile and wind erosion from wood storage pile, the high moisture content of the stored wood and the coarse wood cover will be utilized to reduce fugitive emissions.
- f. Monitoring, recordkeeping and reporting are as set forth in 2.1 A.4.c.,d., and f.

From the Ash Handling System

Monitoring/Record Keeping for Visible Emissions [15A NCAC 2Q .0508(f)]

- g. To ensure compliance, the Permittee shall observe, on a weekly basis, the bottom ash handling system (**ID No. F6A-1**) and the fly ash handling system (**ID No. F6A-2**) for any visible emissions. If any visible emissions from the ash handling systems are observed, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0530.
- h. The results of the monitoring for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and the results of any corrective actions performed.

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

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

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

2.2 Multiple Emission Source(s) Specific Limitations and Conditions

A. Facility-wide affected emission sources

The following table provides a summary of limits and standards applicable facility wide:

Regulated Pollutant	Limits/Standards	Applicable Regulation
toxic air pollutants	Permit limits for toxic air pollutants shall not be exceeded. State-enforceable only.	15A NCAC 2D .1100
Odors	Odorous emissions must be controlled. State enforceable only	15A NCAC 2D .1806

1. 15 A NCAC 2D .1100: Control of Toxic Air Pollutants (State only requirement)

- a. Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following optimized permit limits (as established through approved modeling at 95% of each respective AAL) for emissions from the wood waste-fired boiler shall not be exceeded:

Toxic Pollutant	Optimized Allowable Limit	Toxic Pollutant	Optimized Allowable Limit
Acetaldehyde	1.10E+05 lb/hr	Aziridine	2.91E+03 lb/day
Acetic Acid	1.51E+04 lb/hr	Carbon disulfide	9.02E+04 lb/day
Acrolein	3.26E+02 lb/hr	Chlorobenzene	1.07E+06 lb/day
Ammonia	1.10E+04 lb/hr	Di(2-ethylhexyl) phthalate	1.46E+04 lb/day
Aniline	4.08E+03 lb/hr	Dichlorodifluoro-methane	1.20E+08 lb/day
Benzyl chloride	2.04E+03 lb/hr	Dichlorofluoromethane	2.43E+05 lb/day
Bromine	8.15E+02 lb/hr	Dimethyl sulfate	1.46E+03 lb/day
Chlorine	3.67E+03 lb/hr	1,4 -dioxane	2.72E+05 lb/day
	1.82E+04 lb/day	Ethylenediamine	1.46E+05 lb/day
Chloroprene	1.43E+04 lb/hr	Hydrazine	2.91E+02 lb/day
	2.13E+05 lb/day	Manganese & compounds	1.50E+04 lb/day
Cresol	8.97E+03 lb/hr	Manganese cyclopentadienyl tricarbonyl	2.91E+02 lb/day
Ethyl acetate	5.71E+05 lb/hr	Manganese tetroxide	3.01E+03 lb/day
Ethyl mercaptan	4.08E+02 lb/hr	Mercury	2.91E+02 lb/day
Ethylene glycol mono-ethyl ether	4.89E+02 lb/hr	Mercury, alkyl	2.91E+02 lb/day
Ethylenediamine	1.02E+04 lb/hr	Mercury, aryl	2.91E+02 lb/day
Flourides	1.02E+03 lb/hr	n-Hexane	5.34E+05 lb/day
	7.76E+03 lb/day	Nickel carbonyl	2.91E+02 lb/day
Formaldehyde	6.12E+02 lb/hr	Nickel metal	2.91E+03 lb/day
Hexachlorocyclopentadiene	4.08E+01 lb/hr	Nickel, soluble	2.91E+02 lb/day
	2.91E+02 lb/day	Phosgene	1.21E+03 lb/day
Hexane isomers	1.47E+06 lb/hr	1,1,2,2-tetrachloro-1,2-difluoroethane	2.52E+07 lb/day
Hydrogen chloride	2.85E+03 lb/hr	1,1,2,2-tetrachloro-2,2-difluoroethane	2.52E+07 lb/day
Hydrogen cyanide	4.48E+03 lb/hr	Toluene-2,4-diisocyanate	9.70E+01 lb/day
	6.79E+04 lb/day	Trichloroethylene	2.86E+04 lb/day
Hydrogen flouride	1.02E+03 lb/hr	Vinylidene chloride	5.82E+04 lb/day
	1.46E+04 lb/day	Acrylonitrile	6.91E+05 lb/year
Hydrogen sulfide	8.56E+03 lb/hr	Ammonium chromate	3.82E+02 lb/year
Maleic anydride	4.08E+02 lb/hr	Ammonium dichromate	3.82E+02 lb/year
	5.82E+03 lb/day	Arsenic	1.06E+03 lb/year
Methyl chloroform	9.99E+05 lb/hr	Benzene	5.52E+05 lb/year
	5.82E+06 lb/day	Benzidine and salts	6.90E+01 lb/year
Methylene chloride	6.93E+03 lb/hr	Benzo(a)pyrene	1.52E+05 lb/year
	1.10E+08 lb/year		
Methyl ethyl ketone	3.61E+05 lb/hr		
	1.79E+06 lb/day		

Toxic Pollutant	Optimized Allowable Limit	Toxic Pollutant	Optimized Allowable Limit
Methyl isobutyl ketone	1.22E+05 lb/hr 1.24E+06 lb/day	Beryllium	1.89E+04 lb/year
Methyl mercaptan	2.04E+02 lb/hr	Beryllium chloride	1.89E+04 lb/year
Nitric acid	4.08E+03 lb/hr	Beryllium flouride	1.89E+04 lb/year
Nitrobenzene	2.04E+03 lb/hr	Beryllium nitrate	1.89E+04 lb/year
	2.91E+04 lb/day	Bis-chloromethyl ether	1.70E+03 lb/year
p-dichlorobenzene	2.69E+05 lb/hr	1,3-butadiene	7.82E+05 lb/year
Pentachlorophenol	1.02E+02 lb/hr	Cadmium	2.53E+04 lb/year
	1.46E+03 lb/day	Cadmium acetate	2.53E+04 lb/year
Phenol	3.87E+03 lb/hr	Cadmium bromide	2.53E+04 lb/year
Phosphine	5.30E+02 lb/hr	Calcium chromate	3.82E+02 lb/year
Styrene	4.32E+04 lb/hr	Carbon tetrachloride	3.08E+07 lb/year
Sulfuric acid	4.08E+02 lb/hr	Chloroform	1.98E+07 lb/year
	5.82E+03 lb/day	Chromic acid	3.82E+02 lb/year
Toluene	2.28E+05 lb/hr	Chromium VI	3.82E+02 lb/year
	2.28E+06 lb/day	Epichlorohydrin	3.82E+08 lb/year
1,1,2-trichloro-1,2,2-triflouroethane	3.87E+06 lb/hr	Ethylene dibromide	1.84E+06 lb/year
Xylene	2.65E+05 lb/hr	Ethylene dichloride	1.75E+07 lb/year
	1.31E+06 lb/day	Ethylene oxide	1.24E+05 lb/year
		Hexachlorodibenzo-p-dioxin	3.49E+02 lb/year
		n-Nitrosodimethylamine	2.30E+05 lb/year
		Nickel subsulfide	9.66E+03 lb/year
		Perchloroethylene	8.74E+08 lb/year
		Polychlorinated biphenyls	3.82E+05 lb/year
		Potassium chromate	3.82E+02 lb/year
		Potassium dichromate	3.82E+02 lb/year
		Sodium chromate	3.82E+02 lb/year
		Sodium dichromate	3.82E+02 lb/year
		Strontium chromate	3.82E+02 lb/year
		1,1,1,2-tetrachloro-ethane	2.90E+07 lb/year
		Tetrachlorodibenzo-p-dioxin	1.38E+01 lb/year
		Vinyl chloride	1.75E+06 lb/year
		Zinc chromate	3.82E+02 lb/year

- b. LIMITATION(S) - To ensure compliance with the above limits, the following restrictions shall apply:
 By weight, the total wood fuel mixture to the wood waste-fired boiler shall consist of a maximum of 50 percent creosote treated railroad ties, a maximum of 10 percent brooder house poultry waste, and/or a maximum of 50 percent cotton waste. Clean wood, plywood trimmings, particle board, and/or waste sludge (wood cellulose) can be burned at any wood fuel mixture.
- i. No pentachlorophenol treated railroad ties shall be combusted in this boiler.
 - ii. In addition the fuels specified herein, the Permittee may utilize a maximum of 3,000 gallons per year of used oil (generated at this facility only) as a supplemental fuel in the wood waste-fired boiler. The used oil shall be considered equivalent to No. 4 fuel oil, as approved by the Division of Air Quality. Chemical analysis of the used oils shall be conducted annually.
- c. REPORTING REQUIREMENT(S) - For compliance purposes, within 30 days after each calendar year quarter the following shall be reported to the Regional Supervisor, Division of Air Quality:
 By month, the total weight of clean wood, railroad ties, plywood trimmings, particle board, waste sludge (wood cellulose), cotton waste, and brooder house poultry waste purchased for the boiler. Calculate each wood fuel as a percent by weight of total wood purchased.
- i. A certification from the railroad tie fuel vendor that all railroad ties supplied were creosote treated. In addition, the Permittee shall certify that all railroad ties combusted at this facility were furnished by this vendor.
 - ii. A certification from the poultry waste supplier that all poultry waste supplied was from brooder houses only. In addition, the Permittee shall certify that all brooder house poultry waste combusted at this facility was furnished by this supplier.

- d. REPORTING REQUIREMENT(S) - For compliance purposes, within thirty (30) days after each calendar year end, the following shall be reported to the Regional Supervisor, Division of Air Quality:
 - i. The chemical analysis of the used oil,
 - ii. The total amount of used oil burned during the previous calendar year.

2. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS [STATE ONLY REQUIREMENT]

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

2.3 Permit Shield

Boiler (ID No. ES5A) is a "qualifying facility" under the acid rain provisions of 40 CFR 72.6(b)(5) as determined prior to November 15, 1990 which is exempt from the acid rain program pursuant to 40 CFR 72.6(a)(3)(v).

SECTION 3 – GENERAL CONDITIONS

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

A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(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 NO_x budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

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

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

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

F. **Circumvention** - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**

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

H. **Changes Not Requiring Permit Modifications**

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

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

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

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

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

Excess Emissions

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

Permit Deviations

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

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

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

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

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

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

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

- d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.
- K. **Permit Renewal** [15A NCAC 2Q .0508(e) and 2Q .0513(b)]
This permit is issued for a fixed term of five years for facilities subject to Title IV requirements and for a term not to exceed five years in the case of all other facilities. This permit shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 2Q .0512(b)(1), this permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of this permit shall remain in effect until the renewal permit has been issued or denied.
- L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 2Q .0508(i)(4)]
It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- M. **Duty to Provide Information (submittal of information)** [15A NCAC 2Q .0508(i)(9)]
 1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
 2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.
- N. **Duty to Supplement** [15A NCAC 2Q .0507(f)]
The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.
- O. **Retention of Records** [15A NCAC 2Q .0508(f) and 2Q .0508 (l)]
The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.
- P. **Compliance Certification** [15A NCAC 2Q .0508(n)]
The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:
 1. the identification of each term or condition of the permit that is the basis of the certification;
 2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
 3. whether compliance was continuous or intermittent; and
 4. the method(s) used for determining the compliance status of the source during the certification period.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or

interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

FEDERALLY-ENFORCEABLE ONLY

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

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

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

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

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

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

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

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

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

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

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

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

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

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or

- d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 2Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 2Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 2Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

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

ATTACHMENT

List of Acronyms

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