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

Beverly Eaves Purdue
Governor

B. Keith Overcash, P.E.
Director

Dee Freeman
Secretary

xx

DRAFT

Mr. Ralph D. Smith
Plant Manager
Coastal Carolina Clean Power, LLC
P. O. Box 809
Kenansville, NC 28349

SUBJECT: **Air Quality Permit No. 05492T20**
Facility ID: 3100116
Coastal Carolina Clean Power, LLC
Kenansville
Duplin County
Fee Class: Title V

Dear Mr. Smith:

In accordance with your completed Air Quality Permit Application for a Significant Modification of a Title V Permit received October 8, 2009, we are forwarding herewith Air Quality Permit No. 05492T20 to Coastal Carolina Clean Power, LLC, 1838 NC Highway 11 North, Kenansville, North Carolina, authorizing the construction and operation of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

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

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with **both** the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal 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 xx until April 30, 2011, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

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

Sincerely yours,

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

Enclosure

c: Gregg Worley, EPA Region 4
Wilmington Regional Office
Central Files

Attachment
Insignificant Activities

Emission Source Description	**Insignificant Regulation**
one diesel fired 340 hp emergency fire pump (ID No. IES-1)	15A NCAC 2Q .0503(8)
one diesel fuel oil storage tank (ID No. IES-2)	15A NCAC 2Q .0503(8)
one fire pump fuel oil storage tank (ID No. IES-3)	15A NCAC 2Q .0503(8)
one solvent parts cleaner (ID No. IES-4)	15A NCAC 2Q .0503(8)
one cooling tower (ID No. IES-5)	15A NCAC 2Q .0503(8)
tire shredders (ID No. IES-6)	15A NCAC 2Q .0503(8)
one turbine lube oil tank vent (ID No. IES-7)	15A NCAC 2Q .0503(8)
mechanical wood unloading via truck dumper / storage, transfer and sizing / gravel road (ID No. IES-8)	15A NCAC 2Q .0503(8)
paved roads (ID No. IES-9)	15A NCAC 2Q .0503(8)

Attachment
Summary of Changes to Permit

The following changes were made to the Coastal Carolina Clean Power, LLC Air Quality Permit No. 05492T19:

Old Page No. [Air Quality Permit No. 05492T19]	**New Page No. [Air Quality Permit No. 05492T20]**	**Condition No**.	**Changes**
4	4	Section 2.1 A. Table	Remove requirements of NOx emissions under 40 CFR 52 Subpart II and make the requirements in 2D .2405 both fed and state enforceable. Include a label for 2Q .0317 (Avoidance for MACT).
13	-	Section 2.1 A.6.e. and Section 2.1 A.7.e.	Remove the restriction on coal sulfur content.
15	10	Section 2.1 A.8.d.	Include the NOx CEM requirement language using 40 CFR 75 Subpart H.
19	-	Section 2.1 A.12	Remove this requirement.
19	15	Section 2.1 A.13	make this required both fed and state enforceable and update it in accordance with 2D .02405.
20	14	Section 2.1 A.14	Make this Section 2.1 A.12.
24	19	Section 2.2 A.1.b., c. and d.	Combine them in Section 2.2 A.1.b. and c. Revise this monitoring language to include determination of HCl using fuel analysis procedures.
24	21	Section 2.2 A.1.e.	Change it to Section 2.2 A.1.d.
31 and 32	29 and 30	Section 3	Revise General Condition NN and add a new OO Condition. Revise the list of acronyms.

State of North Carolina
Department of Environment
and Natural Resources

Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
05492T20	05492T19	xx	April 30, 2011

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:	**Coastal Carolina Clean Power, LLC**
Facility ID:	**3100116**
Facility Site Location:	**1838 NC Highway 11 North**
City, County, State, Zip:	**Kenansville, Duplin County, North Carolina 28349**
Mailing Address:	**Post Office Box 809**
City, State, Zip:	**Kenansville, North Carolina 28349**
Application Number:	**3100116.09E**
Complete Application Date:	**October 8, 2009**
Primary SIC Code:	**4911**
Division of Air Quality,	**Wilmington Regional Office**
Regional Office Address:	**127 Cardinal Dr. Extension**
	Wilmington, North Carolina 28405

Permit issued this the xx.

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

Table Of Contents

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

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 **PSD** and **PSD-Avoidance** **NSPS** **CAM**	one coal/natural gas/No. 2 and No. 4 fuel oil/tire derived fuel/pelletized paper fuel/flyash briquette/unadulterated wood/adulterated wood including wood waste, railroad ties and engineered wood - fired steam, electric generating, boiler (215 million Btu per hour maximum heat input rate)	CD-1A2 CD-1A	one multicyclone (132, nine-inches diameter tubes each) installed in series with one bagfilter (3.26:1 air-to-cloth ratio)
ES-1B **PSD** and **PSD-Avoidance** **NSPS** **CAM**	one coal/natural gas/No. 2 and No. 4 fuel oil/tire derived fuel/pelletized paper fuel/flyash briquette/adulterated wood including wood waste, railroad ties and engineered wood - fired steam, electric generating, boiler (215 million Btu per hour maximum heat input rate)	CD-1B2 CD-1B	one multicyclone (132, nine-inches diameter tubes each) installed in series with one bagfilter (3.26:1 air-to-cloth ratio)
ES-3 **PSD**	one fly ash silo with wet slurry pugmill for unloading	CD-3	one silo binvent (100 square feet of filter area)
ES-6 **PSD**	coal unloading/storage and transfer	Wetsup	wet suppression/chemical binder

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, 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/unadulterated wood/adulterated wood including wood waste, railroad ties and engineered wood - fired boilers (ID Nos. ES-1A and 1B, 215 million Btu/hr maximum heat input rate each) and associated multicyclones (ID Nos. CD-1A2 and 1B2) and bagfilters (ID Nos. CD-1A and 1B)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	*Primary Operating Scenario (POS) - firing wood in combination with coal and TDF* Ec=[(0.30)(Qw) + (0.23)(Qo)]/Qt where: Ec=emission limit (lb/million Btu) Qw=actual wood heat input rate (million Btu/hour) Qo=actual other fuel heat input rate (million Btu/hr) Qt=Qw + Qo *Alternate Operating Scenario (AOS) - firing non-wood fuel only* 0.23 pounds per million Btu heat input	15A NCAC 2D .0504 15A NCAC 2D .0503
sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
visible emissions	20 percent opacity	15A NCAC 2D .0521
PM10	6.02 pounds per hour per boiler	15A NCAC 2D .0501(e)
sulfur dioxide	322.5 pounds per hour per boiler	15A NCAC 2D .0501(e)
nitrogen oxides	141.9 pounds per hour per boiler	15A NCAC 2D .0501(e)
carbon monoxide	120.4 pounds per hour per boiler	15A NCAC 2D .0501(e)
nitrogen oxides	See Section 2.1 A.5.	15A NCAC 2D .0524 [NSPS Subpart Db]
particulate matter	0.028 pounds per million Btu heat input	15A NCAC 2D .0530
sulfur dioxide	1.50 pounds per million Btu heat input	15A NCAC 2D .0530
nitrogen oxides	0.66 pounds per million Btu heat input	15A NCAC 2D .0530
carbon monoxide	0.56 pounds per million Btu heat input	15A NCAC 2D .0530
nitrogen oxide	Less than 788 tons per consecutive 12 months	15A NCAC 2Q .0317 [PSD Avoidance]
carbon monoxide	Less than 204 tons per consecutive 12 months	15A NCAC 2Q .0317 [PSD Avoidance]
PM10	See Section 2.1 A.9.	15A NCAC 2D .0614
toxic air pollutants	See Section 2.1 A.10.	15A NCAC 2Q .0700 [state-only requirement]
toxic air pollutants	See Section 2.1 A.11.	15A NCAC 2D .1100 [state-only requirement]

nitrogen oxides	See Section 2.1 A.12.	15A NCAC 2D .0530(u)
nitrogen oxides	See Section 2.1 A.13.	15A NCAC 2D .2405
HAPs	See Section 2.2 A.1.	15A NCAC 2Q .0317 [MACT Avoidance]

ALTERNATIVE OPERATING SCENARIOS [15A NCAC 2Q .0508(p)]

a. The Permittee, contemporaneously with making a change from the Primary Operating Scenario (POS) to the Alternative Operating Scenario (AOS), shall record in a logbook (written or electronic format) the scenario under which it is operating. [15A NCAC 2Q .0508(p)]

POS -firing wood fuel in combination with coal and TDF

1. 15A NCAC 2D .0504: PARTICULATES FROM WOOD BURNING INDIRECT HEAT EXCHANGERS

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]

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

where: Qw = actual wood heat input rate in Btu/hr
Qf = actual other fuels input rate in Btu/hr

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0504.

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

c. Particulate matter emissions from the boilers shall be controlled by the multicyclones. 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 .0504 if the multicyclones and ductwork is 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. an annual internal inspection of the bagfilters for structural and fabric filter integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0504 if the control devices 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 .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)]

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 .0504 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 bagfilters or multicyclones.
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.

AOS -firing non-wood fuel only

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

a. Emissions of particulate matter from the combustion of non-wood 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 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A. 2. 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 the boilers shall be controlled by the multicyclones. 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 is 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. an annual internal inspection of the bagfilters for structural and fabric filter integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503 if the control devices 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;
   vii. 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 bagfilters and multicyclones.
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.

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

Monitoring/Recordkeeping [15A NCAC 2Q .0508 (f)]
c. To assure compliance, the Permittee shall monitor the sulfur content of the coal by using coal supplier certification per total shipment received. The coal supplier certification shall be recorded in a logbook (written or electronic format) per total shipment and include the following information:
   i. the name of the coal supplier;
   ii. the maximum sulfur content of the coal received per total shipment;
   iii. a statement verifying that the methods used to determine the maximum sulfur content of the coal was in accordance with the following:
      (A) sampling -- ASTM Method D 2234;
      (B) preparation -- ASTM Method D 2013;
      (C) gross calorific value (Btu) -- ASTM Method D-2015, D-3286 or D-1989;
      (D) moisture content --ASTM Method D 3173;
      (E) sulfur content -- ASTM Method D 3177 or ASTM Method D 4239; and

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the coal is not monitored and recorded. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the emissions or sulfur content exceed any of the limits in Section 2.1 A.3. a.

Reporting [15A NCAC 2Q .0508(f)]
d. The Permittee shall submit a summary report of the coal supplier certifications 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. This summary report shall include a certified statement signed by the responsible official that the records of coal supplier certification submitted represent all of the coal fired during the reporting period. All instances of deviations from the requirements of this permit must be clearly identified.

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)]

Testing [15A NCAC 2D .2601]
b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A. 4. 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 day the Permittee shall observe the emission points of these sources (ID Nos. ES-1A and 1B) for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent

observations per semi-annual period. 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 source in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.4. 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 observations 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 02D .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.

5. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS

a. For boilers (ID Nos. ES-1A and ES-1B), the Permittee shall comply with all applicable provisions for NOx emissions including the requirements for emission standards, compliance and performance testing, emission monitoring, and reporting and recordkeeping, in accordance with 15A NCAC 2D .0524, "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60, Subpart Db, including Subpart A "General Provisions."

b. The Permittee shall limit the operation of the affected facility (ID Nos. ES-1A and ES-1B) such that the annual capacity factor for coal, No. 2 fuel oil, No. 4 fuel oil, and natural gas shall each be less than 10 percent (0.10) or less. In addition, the Permittee shall limit the operation of the affected facility (ID Nos. ES-1A and ES-1B) such that the annual capacity factor for mixture of coal, No. 2 fuel oil, and No. 4 fuel oil with natural gas shall be less than 10 percent (0.10) or less.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f) and § 60.49b]

c. For affected facilities (ID Nos. ES-1A and ES-1B), the Permittee shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, and wood for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.
d. All records required under § 60.49b shall be maintained by the Permittee for a period of 2 years following the date of such record. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the records are not maintained for a period of 2 years following the date of such record.

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

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

6. 15A NCAC 2D .0501(e): COMPLIANCE WITH NATIONAL AMBIENT AIR QUALITY STANDARDS

a. Particulate matter emissions from boilers (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 boilers (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 boilers (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 boilers (ID Nos. ES-1A and 1B) shall not exceed 120.4 pounds per hour per boiler. [15A NCAC 2D .0501(e)]

Testing [15A NCAC 2D .2601]

e. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above any limit given in Section 2.1 A. 6. 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. The Permittee shall follow the monitoring, recordkeeping, and reporting requirements in Section 2.1 A. 1. c-g and 2. c-g. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(e) if the emissions exceed any of the limits in Section 2.1 A. 6. a-d above. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(e) if the bagfilters are not inspected and maintained.

7. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

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 2D .2601]

e. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above any limit given in Section 2.1 A. 7. a-d. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

f. The Permittee shall follow the monitoring, recordkeeping, and reporting requirements in Section 2.1 A. 1. c-g and 2. c-g. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the emissions exceed any of the limits in Section 2.1 A. 7. a-d above. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the bagfilters are not inspected and maintained.

8. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

Subsequent to the limits established in Section 2.1 A. 6 and 2.1 A.7, the Permittee requested a permit modification to allow for burning of adulterated wood including wood waste, railroad ties, and engineered wood in boilers (ID Nos. ES-1A and ES-1B). In order to avoid applicability per 15A NCAC 2D .0530 for this modification, the following limits shall apply at all times. The prior existing PSD and NAAQS permit limits in Section 2.1 A. 6 and 2.1 A.7 additionally apply at all times.

a. Facility wide nitrogen oxide emissions shall not exceed 788 tons per consecutive 12-month period.
b. Facility wide carbon monoxide emissions shall not exceed 204 tons per consecutive 12-month period.

Testing [15A NCAC 2D .2601]

c. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above any limit given in Section 2.1 A. 8.a. and b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

d. The use of fuel in both boilers shall be limited such that the facility wide NOx and CO emissions shall not exceed the limits given in Section 2.1 A. 8.a. through b. above for any consecutive 12-month period.

Calculations for CO emissions shall be made monthly and recorded in a logbook (written or electronic format), according to the following formulas:

$$\text{CO, tons/month} = [\Sigma \{0.17 \text{ lb/million Btu x A million Btu/month}\} + \Sigma \{84 \text{ lb}/10^6 \text{ scf x B scf/month}\} + \Sigma \{5 \text{ lb}/10^3 \text{ gallon x } (C_1 + C_2) \text{ gallon/month}\} + \Sigma \{7.26 \text{ lb/million Btu x D million Btu/month}\} + \{0.0604 \text{ lb/million Btu x } E_1 \text{ million Btu/month}\} + \{0.153 \text{ lb/million Btu x } E_2 \text{ million Btu/month}\}] / [2000 \text{ lbs/ton}]$$

Where,

A = heat input rate of coal burning in million Btu per hour for each boiler, if this fuel is burned in a given month.

B = natural gas usage in standard cubic feet per month for each (Pre or Post-NSPS) natural gas-fired boiler (> 100 million Btu/hr), if it burned this fuel in a given month.

C_1 = No. 2 fuel oil usage in gallons per month for each boiler (> 100 million Btu/hr), if it burned this fuel in a given month.

C_2 = No. 4 fuel oil usage in gallons per month for each boiler (> 100 million Btu/hr), if it burned this fuel in a given month.

D = heat input rate of TDF in million Btu per hour for each boiler, if it burned this fuel in a given month.

E_1 = heat input rate of unadulterated and adulterated wood in million Btu per hour for boiler ES-1A, if it burned these fuels in a given month.

E_2 = heat input rate of unadulterated and adulterated wood in million Btu per hour for boiler ES-1B, if it burned these fuels in a given month.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the above records are not kept or if the facility wide emissions of carbon monoxide on a consecutive 12-month basis exceed the limit in Section 2.1 A. 8.b. above.

The Permittee shall monitor NOx emissions from the boilers (ID Nos. ES-1A and ES-1B) using a continuous emissions monitoring (CEM) system that meets the requirements of 40 CFR Part 75 Subpart H, with such exceptions as allowed in this Subpart. If the NOx CEMS does not comply with the requirements in this Section 2.1 A.8.d. or if the the NOx emissions on a consecutive 12-month basis exceed the emissions limit in Section 2.1 A.8.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

e. The 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 NOx and CO emissions for the previous 17 months on a facility wide basis. 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.

9. 15A NCAC 2D .0614: COMPLIANCE ASSURANCE MONITORING

- Two solid fuel/liquid fuel-fired boilers (ID Nos. ES-1A and ES-1B)

a. Per 15A NCAC 2D .0614, the Permittee shall comply with the following:

b. Background
   i. Emission Units.
   (1) Description: Two solid fuel/liquid fuel-fired boilers (ID Nos. ES-1A and ES-1B; 215 million Btu per hour maximum heat input, each)

c. Applicable Regulation, Emission Limit, and Monitoring Requirements.
   i. Regulation: 15A NCAC 2D .0501(e)
   ii. Emission Limit: 6.02 pounds per hour PM_{10}, each.

d. Control Technology. Multicyclones (ID Nos. CD-1A2 and CD-1B2) and Fabric filters (ID Nos. CD-1A and CD-1B)

e. **Monitoring Approach:** The key elements of the monitoring approach are presented in the following table.

Indicator Measurement Approach	*Indicator:* Visible opacity emissions.
Indicator Range	An excursion is defined as any visible opacity emissions above zero percent. If an excursion occurs, corrective action and preventative maintenance are performed on the fabric filter.
Performance Criteria/Data Representativeness	If more than 6 excursions in any 6-month period occur, the Permittee must perform inspection and maintenance on the fabric filter in accordance with 2.1.A.1.c and d.
Monitoring Frequency	Daily.
Data Collection Procedure	The visible emission observation will be recorded manually once per day, and results kept in a recordbook (or electronically)
Averaging Period	NA

f. Reporting and Recordkeeping Requirements:

Part 64 requires the owner or operator to submit monitoring reports to the permitting authority in accordance with 40 CFR 70.6(a)(3)(iii). The report for monitoring under Part 64 shall include, at a minimum, the information required under 40 CFR 70.6(a)(3)(iii) and the following information, as applicable:
a. Summary information on the number, duration, and cause (or if the cause is unknown, a statement to that effect) of excursions or exceedances, as applicable, and the corrective actions taken.

State-only Requirement

10. 15A NCAC 2Q .0700: TOXIC AIR POLLUTANT PROCEDURES

a. 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.

b. The tire derived fuel feed rate shall not exceed 20% of the heat input of each boiler.

c. 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, flyash briquettes will be fired only during low steam demand conditions, defined to be:

i. when the plant is dispatched off-line (no electrical generation produced for the utility), and
ii. steam production limit of 80,000 pounds steam per hour.

d. Pursuant to 15A NCAC 2Q .0711 "Emission Rates Requiring a Permit", 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 TAPs from the facility, including fugitive emissions, will not exceed TPERs listed 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 TPERs.

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 "Control of Toxic Air Pollutants".

iii. In accordance with the approved application, the Permittee shall maintain records of operational information demonstrating that the TAP emissions do not exceed the TPERs as listed below:

Pollutant (CAS Number)	Carcinogens lb/yr	Chronic Toxicants lb/day	Acute Systemic Toxicants lb/hr	Acute Irritants lb/hr
acetaldehyde (75-07-0)				6.8
carbon tetrachloride (56-23-5)	460			
chlorobenzene (108-90-7)		46		
chloroform (67-66-3)	290			
cresol (1319-77-3)			0.56	
p-dichlorobenzene (106-46-7)				16.8
ethylene dichloride (107-06-2)	260			
di(2-ethylhexyl)phthalate (117-81-7)		0.63		
methyl chloroform (71-55-6)		250		64
methyl ethyl ketone (78-93-3)		78		22.4
methylene chloride (75-09-2)	1600		0.39	
pentachlorophenol (87-86-5)		0.063	0.0064	
perchloroethylene (127-18-4)	13000			
phenol (108-95-2)			0.24	
polychlorinated biphenyls (1336-36- 3)	5.6			
styrene (100-42-5)			2.7	
tetrachlorodibenzo-p-dioxin (1746- 01-6)	0.0002			
toluene (108-88-3)		98		14.4
trichloroethylene (79-01-6)	4000			
trichlorofluoromethane (75-69-4)			140	
xylene (1330-20-7)		57		16.4

Monitoring/Recordkeeping

e. 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.

f. 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.

g. 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.

h. 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.

i. The Permittee shall maintain a flyash briquette combustion logbook onsite with the following information:
   i. daily quantity of flyash briquettes combusted,
   ii. maximum hourly steam demand during the hours of flyash briquettes combustion for that day, and
   iii. daily recordkeeping is only required on days in which briquettes are burned.

Reporting

j. 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.

k. Prior to combustion for the first time, the Permittee shall submit an analysis of the used oil and unadulterated oil equivalency determination for approval.

l. 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.

m. 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.

State-enforceable only

11. 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	Acrolein	1.72 lbs/hr

(ID Nos. ES-1A and ES-1B)	Arsenic and inorganic arsenic compounds	42.3 lb/yr
	Benzene	7,581 lbs/yr
	Benzo(a)pyrene	4.95 lb/yr
	Beryllium	1.92 lbs/yr
	Cadmium	8.85 lbs/yr
	Chlorine	0.34 b/hr
	Chlorine	8.15 lb/day
	Soluble chromate compounds, as chromium (VI) equivalent	0.37 lb/day
	Hydrogen chloride	8.18 lbs/hr
	Formaldehyde	1.89 lb/hr
	Manganese and compounds	16.5 lb/day
	Mercury, vapor	0.036 lb/day
	Nickel, soluble compounds, as nickel	0.34 lb/day
	Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8	2.79 lbs/yr
	Vinyl chloride	31.36 lbs/yr

Testing [15A NCAC 2D .1105]

b. No testing is required.

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

c. The Permittee is allowed to burn the adulterated wood in the boilers (ID Nos. ES-1A and ES-1B) not more than the following combined amounts: 65,700 tons per year of wood waste, 84,276 tons per year of railroad ties, and 42,900 tons per year of engineered wood.

d. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amount of each type of adulterated wood burned in each boiler (ID Nos. ES-1A and ES-1B) and shall made available to DAQ personnel upon request.

12. 15A NCAC 2D .0530(u): PREVENTION OF SIGNIFICANT DETERIORATION

a. The Permittee has used projected actual emissions to avoid applicability of prevention of significant deterioration requirements for a project consisting of burning of wood waste, railroad ties, and engineered wood in boilers (ID Nos. ES-1A and ES-1B), installing multiclones (ID Nos. CD-1A2 and CD-1B2), and modifying existing bagfilters (ID Nos. CD-1A and CD-1B) [Application No. 3100116.08B]

In order to verify the assumptions used in the projected actual emissions calculations, the Permittee shall comply with the testing, record keeping and reporting requirements in Section 2.1 A.12.b. through d. below.

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ.

Recordkeeping [15A NCAC 2D .0530(u)]

c. The Permittee shall maintain records of actual emissions for NOx in tons per year on a calendar year basis for five years following the resumption of regular operations upon commencement of burning of wood waste, railroad ties, and engineered wood in boilers (ID Nos. ES-1A and ES-1B), installing multiclones (ID Nos. CD-1A2 and CD-1B2), and modifying existing bagfilters (ID Nos. CD-1A and CD-1B).

The Permittee shall make the information, documented and maintained in this Section 2.1 A.12.c., available to the Director or the general public pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).

Reporting [15A NCAC 2D .0530(u)]

d. The Permittee shall submit a report for NOx emissions to the Director within 60 days after the end of each calendar year during which the records in Section 2.1 A.12.c. must be generated. The report shall contain the items listed in 40 CFR 51.166(r)(6)(v)(a) through (c).

The reported actual emissions for each of the five calendar years for NOx will be compared to the respective projected actual emissions as included below:

Pollutant	Projected Actual Emissions Emission Factor Lb/Million Btu	Projected Actual Emissions* Tons per Year
NOx	0.22 (wood waste, ES-1A and ES-1B) 0.207 (railroad ties, ES-1A and ES-1B) 1.29 (engineered wood, ES-1A and ES-1B)	392.9

*The projected actual emissions and associated emissions factors are not enforceable limitations. If the reported actual emissions exceed the projected actual emissions, the Permittee shall include in its annual report an explanation as to why actual emissions exceeded the projected actual emissions.

13. 15A NCAC 2D .2405: NITROGEN OXIDE EMISSIONS DURING OZONE SEASON

a. Ozone season NOx emissions from the CAIR sources (ID Nos. ES-1A and ES-1B) at the Coastal Carolina Clean Power, LLC, shall not exceed, except as provided in 15A NCAC 2D .2408: [15A NCAC 2D .2405(a)(2) and (b)]
   i. 113 tons during the ozone season for 2009-2014; and
   ii. 113 tons during the ozone season for 2015 and later

   The ozone season shall be defined as the period of time extending from May 1st to September 30th of each calendar year. 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 NOx ozone season allowances for those sources using the procedures in 40 CFR 96.342(c)(2) and (3).
b. The affected CAIR NOx 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]
c. 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)]

d. 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 NOx unit.
e. The nitrogen oxide ozone season emissions of a CAIR NOx 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 NOx 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.
f. The emissions measurements recorded and reported according to 40 CFR Part 96 Subpart HHHH shall be used to determine compliance by each CAIR NOx Ozone Season source with its emissions limitation according to 40 CFR 96.306(c) including 96.306(c)(5) and (6).
g. The provisions of 40 CFR 96.306(d) shall be used for excess emissions.

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

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	For P $\leq$ 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	15A NCAC 2D .0515

	where E = allowable emission rate in pounds per hour P = process weight in tons per hour	
visible emissions	20 percent opacity	15A NCAC 2D .0521
particulate matter	fly ash silo - wet spray pugmill for unloading & binvent	15A NCAC 2D .0530

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

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

For process weights up to 30 tons per hour:

$E = 4.10 \times P^{0.67}$ Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

For process weights greater than 30 tons per hour:

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

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

Testing [15A NCAC 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ found in Section 3. 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 this emission source shall be controlled by one binvent (ID No. CD-3). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturers. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. an annual internal inspection of the binvent for structural 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 this source (ID No. ES-3) 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 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC .2601 and General Condition JJ found in Section 3. 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 this source for any visible emissions above normal. If visible emissions from this source 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 source in accordance with 15A NCAC 2D .2601 (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 binvent (ID No. CD-3) installed on the ash silo (ID No. ES-3). [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 through f. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the binvent is not inspected and maintained.

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

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
visible emissions	20 percent opacity	15A NCAC 2D .0521
particulate matter	wet suppression shall be used on the following: 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 2D .2601]

b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 C. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

c. To assure compliance, once a week the Permittee shall observe these sources for any visible emissions above normal. If visible emissions from any of 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 source in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given in 2.1 C.1.a.

   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. 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 02D .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.

2.2- Other Applicable Requirements

A. Facility-wide

Regulated Pollutant	Limits/Standards	Applicable Regulation
HAP	less than 10 tons per year of any single HAP and less than 25 tons per year of a combination of HAP	15A NCAC 2Q .0317

1. 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 .0803]

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

b. Calculations of hydrochloric acid (HCl) and total HAP emissions per month shall be made for each boiler at the end of each month. The emissions of HCl shall be determined by multiplying the total heat input rate of each fuel burned in each boiler during the month by the emission rate of HCl as developed using the fuel analysis procedures in Section 2.2 A.1.c. below. Calculations of the amount of HCl and total HAP emissions shall be recorded monthly in a logbook. If the required records are not maintained in a logbook or the emissions exceed the limits in Section 2.2 A.1.a. above, the Permittee shall be deemed in non-compliance.

In lieu of the emission rate of HCl as developed using the fuel analysis procedures in Section 2.2 A.1.c. below, the Permittee may, after revising the air quality permit by DAQ, use the site-specific emission factors of HCl developed through stack testing.

c. The Permittee shall use the following fuel analyses procedures to develop the emission rate of HCl for each fuel burned in the boilers. The emission rate of HCl for each fuel burned shall be developed within 120 days of issuance of air quality permit No. 05492T20.
   i. Develop and submit a site-specific fuel analysis plan to the NC DAQ – SSCB for review and approval. The plan shall include the following information:
      (A) The identification of all fuel types anticipated to be burned in each affected boiler or process heater.
      (B) For each fuel type, identification of whether the fuel analysis will be conducted by the Permittee or a fuel supplier.
      (C) For each fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if the procedures are different from paragraph c. or d. below. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.
      (D) For each fuel type, the analytical methods, with the expected minimum detection levels, to be used for the measurement of Cl_2.
   ii. Obtain, at a minimum, three composite fuel samples for each fuel type according to the following procedures, or according to the procedures in Table in this Section:
      (A) If sampling from a belt (or screw) feeder, collect fuel samples as follows:
         (1) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. Collect all the material (fines and coarse) in the full cross-section. Transfer the sample to a clean plastic bag.
         (2) Each composite sample will consist of a minimum of three samples collected at approximately equal intervals during the testing period.

(B) If sampling from a fuel pile or truck, collect fuel samples according as follows:
(1) For each composite sample, select a minimum of five sampling locations uniformly spaced over the surface of the pile.
(2) At each sampling site, dig into the pile to a depth of 18 inches. Insert a clean flat square shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling.
(3) Transfer all samples to a clean plastic bag for further processing.

iii. Prepare each composite sample according to the procedures in paragraphs (A). through (G) below:
(A) Thoroughly mix and pour the entire composite sample over a clean plastic sheet.
(B) Break sample pieces larger than 3 inches into smaller sizes.
(C) Make a pie shape with the entire composite sample and subdivide it into four equal parts.
(D) Separate one of the quarter samples as the first subset.
(E) If this subset is too large for grinding, repeat the procedure in paragraph iii. above with the quarter sample and obtain a one-quarter subset from this sample.
(F) Grind the sample in a mill.
(G) Use the procedure in paragraph (C) above to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

iv. Determine the concentration of Cl_2 in unit of lb/million Btu of each composite sample for each fuel type according to the procedures in the following Table:

Pollutant(s)	Task	Method
HCl	Collect Fuel Samples	Procedure in Section 2.2 A.1.c.ii. above; or, ASTM D2234-00, D2234M-03 (for coal) (IBR, see 40 CFR 63.14(b)); or, ASTM D6323-98 (2003) (for biomass) (IBR, see 40 CFR 63.14(b)).
	Prepare Composited Fuel Samples	SW-846-3050B (for solid samples); or, SW-846-3020A (for liquid samples); or, ASTM D2013-04 (for coal) (IBR, see 40 CFR 63.14(b)); or, ASTM D5198-92 (2003) (for biomass) (IBR, see 40 CFR 63.14(b)).
	Determine Heat Content	ASTM D5865-04 (for coal) (IBR, see 40 CFR 63.14(b)); or, ASTM E711-87 (for biomass) (IBR, see 40 CFR 63.14(b)).
	Determine Moisture Content	ASTM D3137-03 (IBR, see 40 CFR 63.14(b)); or, ASTM E871-82 (1998) (IBR, see 40 CFR 63.14(b)).
HCl	Measure HCl Concentration in Sample	SW-846-9250 or ASTM D6721-01 (for coal); or, ASTM E776-87 (1996) (for biomass) (IBR, see 40 CFR 63.14(b)).
	Convert Concentration into lbs/MMBtu	Method 19 F-factor methodology in 40 CFR 60, Appendix A

v. Establish the maximum chlorine fuel input (C_{input}) according to the following procedures:
(A) Determine the permitted fuel type or fuel mixture that has the highest content of chlorine.
(B) Determine the fraction of the total heat input for each fuel type burned (Q_i) based on the fuel mixture that has the highest content of chlorine and the average chlorine concentration of each fuel type burned (C_i).
(C) Establish a maximum chlorine input level using the following equation.

$$Cl_{input} = \Sigma_{i=1 \text{ to } n} \; [C_i / Q_i]$$

Where:
Cl_{input} = Maximum amount of chlorine entering the boiler through fuels burned in lbs/million Btu.
C_i = Arithmetic average concentration of chlorine in fuel type, i, determined by fuel analysis, in lbs/million Btu.
Q_i = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine.
n = Number of different fuel types burned in your boiler for the mixture that has the highest content of chlorine.

vi. If the boiler can burn more than one fuel type, determine the fuel mixture that would result in the maximum emission rate of HCl.

vii. Determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided z- statistic test described in the following equation.

P_{90} = mean + (SD x t)

Where:

P_{90}	=	90th percentile confidence level pollutant concentration, in lb/million Btu.
mean	=	Arithmetic average of the fuel pollutant concentration in the fuel samples, in lb/million Btu.
SD	=	Standard deviation of the pollutant concentration in the fuel samples, in lb/million Btu.
t	=	t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.

viii. HCl emission rate shall be calculated using the following equation:

$$HCl = \Sigma_{i=1 \text{ to } n} = [C_{i90} \times Q_i \times 1.028]$$

Where:

HCl	= HCl emission rate from the boiler in lbs/million Btu.
C_{i90}	= 90th percentile confidence level concentration of chlorine in fuel type, i, in lbs/MMBtu (calculated using Equation in Section 2.2 A.1.c.vii. above)
Q_i	= Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine.
n	= Number of different fuel types burned in the affected source for the mixture that has the highest content of chlorine.
1.028	= Molecular weight ratio of HCl to chlorine.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1109 if the requirements of this Section 2.2 A1.c. are not complied with.

d. The 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)]

e. The 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 HAP emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

SECTION 3 - GENERAL CONDITIONS (version 3.1)

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

A. General Provisions [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]
   1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
   2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
   3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
   4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
   5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
   6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. Permit Availability [15A NCAC 2Q .0507(k) and .0508(i)(9)(B)]
   The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environment and Natural Resources upon request.

C. Severability Clause [15A NCAC 2Q .0508(i)(2)]
   In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. Submissions [15A NCAC 2Q .0507(e) and 2Q .0508(i)(16)]
   Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

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

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

E. Duty to Comply [15A NCAC 2Q .0508(i)(2)]
   The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. Circumvention - STATE ENFORCEABLE ONLY

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

G. Permit Modifications

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

H. Changes Not Requiring Permit Modifications

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

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

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

I.A. Reporting Requirements for Excess Emissions and Permit Deviations
[15A NCAC 2D .0535(f) and 2Q .0508(f)(2)]
"Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 2D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 2Q .0700. *(Note: Definitions of excess emissions under 2D .1110 and 2D .1111 shall apply where defined by rule.)*
"Deviations" - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

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

Permit Deviations

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

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

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

J. Emergency Provisions [40 CFR 70.6(g)]
The Permittee shall be subject to the following provisions with respect to emergencies:

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

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

K. Permit Renewal [15A NCAC 2Q .0508(e) and 2Q .0513(b)]
This permit is issued for a fixed term of five years for facilities subject to Title IV requirements and for a term not to exceed five years in the case of all other facilities. This permit shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 2Q .0512(b)(1), this permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of this permit shall remain in effect until the renewal permit has been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 2Q .0508(i)(4)]
It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 2Q .0508(i)(9)]
1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 2Q .0507(f)]
The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 2Q .0508(f) and 2Q .0508 (l)]
The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 2Q .0508(n)]
The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification
shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

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

Q. **Certification by Responsible Official** [15A NCAC 2Q .0520]
A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 2Q .0512]
1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
   a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
   b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
   c. the applicable requirements under Title IV; or
   d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 2Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 2Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 2Q .0519]
The Director may terminate, modify, or revoke and reissue this permit if:
1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 2Q .0503]
Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 2Q .0508(i)(8)]
This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 2Q .0508(l) and NCGS 143-215.3(a)(2)]
1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
   a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
   b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
   c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
   d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

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

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

W. **Annual Fee Payment** [15A NCAC 2Q .0508(i)(10)]
1. The Permittee shall pay all fees in accordance with 15A NCAC 2Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environment and Natural Resources. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 2Q .0519.

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

Y. **Confidential Information** [15A NCAC 2Q .0107 and 2Q. 0508(i)(9)]
Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 2Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 2Q .0107.

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

AA. **Standard Application Form and Required Information** [15A NCAC 2Q .0505 and .0507]
The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 2Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 2Q .0507(d)(3)]
The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 2Q .0501(e)]
1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 2Q .0508(h)]
If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) -**
FEDERALLY-ENFORCEABLE ONLY
Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

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

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

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

HH. **Registration of Air Pollution Sources** [15A NCAC 2D .0200]
The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 2D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 2D .0501(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)]
If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ in support of a permit application or to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2600 and follow the procedures outlined below:

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

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

1. A permit shall be reopened and revised under the following circumstances:
    a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
    b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;

c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

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

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

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

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

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

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

NN. **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. **Mandatory Greenhouse Gas Reporting Requirements** [15A NCAC 2Q .0508]

FEDERAL ENFORCEABLE ONLY

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

ATTACHMENT
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
CAIR	Clean Air Interstate Rule
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
PM_{10}	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
SO_2	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound