Air Quality
ENVIRONMENTAL QUALITY

PAT MCCRORY
Governor

DONALD R. VAN DER VAART
Secretary

SHEILA C. HOLMAN
Director

April 18, 2016

Mr. David H. Groves
Plant Manager
CPI USA North Carolina – Southport Plant
1281 Powerhouse Drive
Southport, NC 28461

SUBJECT: Air Quality Permit No. 05884T20
Facility ID: 1000067
CPI USA North Carolina – Southport Plant
Southport, North Carolina
Brunswick County
Fee Class: Title V
PSD Class: Major

Dear Mr. Groves:

In accordance with your completed Air Quality Permit Application, received April 15, 2016, for a 2Q .0501(c)(2) Part I modification of your Title V permit, we are forwarding herewith Air Quality Permit No. 05884T20 to CPI USA North Carolina – Southport Plant, 1281 Powerhouse Drive SE, Southport, 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 02Q .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 conditions 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 NCGS 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 NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

The PSD minor source baseline dates for PM10, $SO_2$ and NOx have been triggered for Brunswick County. For PSD increment tracking purposes, this modification consumed increment as follows: $PM_{10}$ by 1.44 lb/hr.

This Air Quality Permit shall be effective from April 18, 2016 until June 30, 2016, 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 Mr. Booker Pullen at (919) 707-8469.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Heather Ceron, EPA Region 4 (electronic copy only)
Wilmington Regional Office
Central Files
Connie Horne (cover letter only)

# ATTACHMENT
# CPI USA North Carolina – Southport Plant

**Insignificant Activities under 15A NCAC 02Q .0503(8)**

| Emission Source ID | Emission Source Description |
|---|---|
| **I-EFP** | One diesel fired 340 hp emergency fire pump |
| **I-FOST1** | One diesel fuel oil storage tank |
| **I-FOST2** | One fire pump fuel oil storage tank |
| **I-SPC** | One solvent parts cleaner using hot water solution containing no reportable HAPs |
| **I-TLOT1 and I-TLOT2** | Two turbine lube oil tanks |
| **I-TS** | One tire shredder |
| **I-1** | Haul Roads |
| **I-WHS** | Wood handling and storage |
| **I-TDFHS** | TDF handling and storage |
| **I-UREA S TK1** | One urea storage tank |
| **I-UREA D TK1** | One urea dilution tank |
| **I-10A and I-10B** | Two submerged drag chain systems for removal and transport of bottom ash to storage pits |

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 "Control of Toxic Air Pollutants" or 02Q .0711 "Emission Rates Requiring a Permit".
3. For additional information regarding the applicability of GACT see the DAQ page titled "The Regulatory Guide for Insignificant Activities/Permits Exempt Activities". The link to this site is as follows: http://daq.state.nc.us/permits/insig/

# ATTACHMENT
## CPI USA North Carolina – Southport Plant

The following changes were made to Air Quality Permit No. 05884T19:

| Page(s) | Section | Description of Change(s) |
|---|---|---|
| All | All | Update dates and permit revision number. |
| 5-6 | 2.1 A. | Added the per unit sulfur dioxide emission limit to the emission limitations table. Added footnote explanation for the new emission limit. |
| 9-10 | 2.1 A. 3. | Changed the allowable sulfur dioxide emission rate to demonstrate modeled compliance with the one hour NAAQS. Added a requirement for the facility to provide an ambient monitor or monitors, to allow DAQ to demonstrate that the NAAQS is not exceeded. Added monitoring to ensure compliance with the revised sulfur dioxide emission rate. Added the requirement to submit a Part II significant modification application within 12 months of permit issuance. |
| 11 | 2.1 A. 3. | Added reporting requirements for exceedances of the revised sulfur dioxide emission limit. |

State of North Carolina
Department of Environmental Quality
Division of Air Quality

# AIR QUALITY PERMIT

| Permit No. | Replaces Permit No(s). | Effective Date | Expiration Date |
|---|---|---|---|
| 05884T20 | 05884T19 | April 18, 2016 | June 30, 2016 |

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 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, 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:** **CPI USA North Carolina – Southport Plant**

**Facility ID:** **1000067**

**Facility Site Location:** **1281 Powerhouse Drive SE**
**City, County, State, Zip:** **Southport, Brunswick County, North Carolina 28461**
**Mailing Address:** **P. O. Box 10836**
**City, State, Zip:** **Southport, North Carolina 28461**

**Application Number:** **1000067.16B**
**Complete Application Date:** **April 15, 2016**
**Primary SIC Codes:** **4911**

**Division of Air Quality, Regional Office Address:** **Wilmington Regional Office**
**127 Cardinal Drive Extension**
**Wilmington, North Carolina 28405**

Permit issued this the 18th day of April, 2016.

William D. Willets, P.E., Chief, Permitting 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:

| Page Nos. | Emission Source ID No. | Emission Source Description | Control Device ID No. | Control Device Description |
|---|---|---|---|---|
| 5, 36 | ES-1 (Unit 1) and ES-2 (Unit 2) **(PSD; PSD Avoidance; NSPS, Subpart Db; 2D .1109 Case-by-Case MACT; SB3 BACT)** | Two electricity generating units consisting of:<br><br>Six watertube design coal/natural gas/No. 2 and No. 4 fuel oil/tire derived fuel/pelletized paper fuel/ flyash briquette/ unadulterated wood[1]/ unadulterated biomass/adulterated resinated wood[2]/ creosote treated wood[3]-fired steam, electric generating, boilers (223 million Btu per hour nominal heat input capacity, each; **ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** | CD-1-1A<br>CD-1-1B<br>CD-1-1C<br>CD-2-1A<br>CD-2-1B<br>CD-2-1C<br><br>CD-1-5A<br>CD-1-5B<br>CD-1-5C<br>CD-2-5A<br>CD-2-5B<br>CD-2-5C<br><br>CD-1-6A<br>CD-1-6B<br>CD-1-6C<br>CD-2-6A<br>CD-2-6B<br>CD-2-6C<br><br>CD-1-7A<br>CD-1-7B<br>CD-1-7C<br>CD-2-7A<br>CD-2-7B<br>CD-2-7C | Six bagfilters (16,800 square feet of filter area, each)<br><br>Six rotating overfire air (ROFA) systems<br><br>Six furnace sorbent injection (FSI) systems<br><br>Six selective non-catalytic reduction (SNCR) systems[4] |
| 28 | ES-2A through ES-2F **(PSD)** | Six coal bunkers | CD-2A through CD-2F | Six bagfilters (161 square feet of filter area each, respectively) |
| 28 | ES-3A and ES-3B **(PSD)** | Two flyash silos with dedicated wet slurry pugmills for unloading | CD-3A and CD-3B | Two silo binvents (100 square feet of filter area, each), one located on each silo |

[1] Unadulterated wood means wood that is not painted, varnished, stained, oiled, waxed, or otherwise coated or treated with any chemical. Plywood, particle board, and resinated wood are not unadulterated wood.
[2] Resinated wood includes plywood, oriented-strand board, and manufactured word products such as laminated beams, untreated wood pellets and lumber scraps that are not part of any construction and demolition.
[3] Creosote treated wood including railroad ties and utility poles as defined in the approved NHSM determination. (Reference: http://www.ncair.org/permits/memos/NHSM_Determination_CPI_USA-NC.pdf)
[4] The installation of selective non-catalytic reduction systems on each boiler is optional.

| Page Nos. | Emission Source ID No. | Emission Source Description | Control Device ID No. | Control Device Description |
|---|---|---|---|---|
| 28 | ES-4A through ES-4D **(PSD)** | Four ash system vacuum transport pumps | CD-4G and CD-4H<br><br>CD-4E and CD-4F<br><br>CD-4A through CD-4D | Two simple cyclones (42 inches in diameter)<br><br>Two bagfilters (528 square feet of filter area, each)<br><br>Four in-line filters (one per pump, respectively) |
| 30 | ES-5 **(PSD)** | One coal unloading/storage and transfer operation | Wetsup | One wet suppression/chemical binder system |
| 31 | ES-8A and ES-8B | Two cooling towers (32,400 gallons per minute recirculating water flow rate each) | None | - |
| 32 | ES-9A and ES-9B | Two alkaline sorbent (limestone, lime or trona) silos (12,554 $ft^3$ maximum storage capacity each) | CD-9A and CD-9B | Vent fabric filters (3.9:1 air-to-cloth ratio each) |
| 34 | RTG-1* | Rail tie grinder (up to 60 tons/hour capacity) | CD-10[5] | Water spray bars |

5 The installation/operation of the water spray bars (ID No. CD-10) is optional.

* This emission source (ID No. RTG-01) is listed as a minor modification per 15A NCAC 02Q .0515. The compliance certification as described in General Condition P is required. Unless otherwise notified by NC DAQ, the affected terms of this permit (excluding the permit shield as described General Condition R) for this source shall become final April 12, 2016, 60 days from the issue date of 05884T19. Until this date, the affected permit terms herein reflect the proposed operating language that the Permittee shall operate this source under pursuant to 15A NCAC 02Q .0515(f).

# SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

**A. Two electricity generating units consisting of:**
**Six watertube design coal/natural gas/No. 2 and No. 4 fuel oil/tire derived fuel/pelletized paper fuel/flyash briquette/unadulterated wood/unadulterated biomass/adulterated resinated wood/creosote treated wood-fired boilers (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C), and associated bagfilters (ID Nos. CD-1-1A, CD-1-1B, CD-1-1C, CD-2-1A, CD-2-1B and CD-2-1C), rotating overfire air (ROFA) systems (ID Nos. CD-1-5A, CD-1-5B, CD-1-5C, CD-2-5A, CD-2-5B and CD-2-5C), furnace sorbent injection (FSI) systems (ID Nos. CD-1-6A, CD-1-6B, CD-1-6C, CD-2-6A, CD-2-6B and CD-2-6C) and selective non-catalytic reduction (SNCR) systems (ID Nos. CD-1-7A, CD-1-7B, CD-1-7C, CD-2-7A, CD-2-7B and CD-2-7C)**

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

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| Sulfur dioxide | 2.3 pounds per million Btu heat input per boiler* | 15A NCAC 02D .0516 |
| | Clean Air Interstate Rule (CAIR) Permit Requirements<br>See Section 2.3 | 15A NCAC 02D .2404 |
| Particulate matter | 0.05 pounds per million Btu heat input per boiler* | 15A NCAC 02D .0524<br>(40 CFR 60, Subpart Db)<br>(60.43b(a)(1)) |
| Opacity | 20 percent (6-minute average) per common stack* | 15A NCAC 02D .0524<br>(40 CFR 60, Subpart Db)<br>(60.43b(f)) |
| Nitrogen oxide | **Coal-firing only**<br>0.60 pounds per million Btu heat input per boiler* | 15A NCAC 02D .0524<br>(40 CFR 60, Subpart Db)<br>(60.44b(a)) |
| Nitrogen oxide | Simultaneously burning coal with fuel oil or a mixture of these fuels with natural gas or any other fuel (per boiler*):<br><br>$E_n = (0.1H_{go} + 0.3H_{ro} + 0.6H_c)/(H_{go} + H_{ro} + H_c)$<br><br>Where:<br>$E_n$ = nitrogen oxide emission limit (lbs/mmBtu)<br>$H_{go}$ = heat input from the combustion of natural gas or distillate oil (mmBtu)<br>$H_{ro}$ = heat input from the combustion of residual oil (mmBtu)<br>$H_c$ = heat input from the combustion of coal (mmBtu) | 15A NCAC 02D .0524<br>(40 CFR 60, Subpart Db)<br>(60.44b(c)) |
| | Clean Air Interstate Rule (CAIR) Permit Requirements<br>See Section 2.3 | 15A NCAC 02D .2403<br>and .2405 |
| $PM_{10}$ | 6.02 pounds per hour per boiler* | 15A NCAC 02D<br>.0501(c) |
| Sulfur dioxide | 327.8 pounds per hour per boiler*<br>453.6 pounds per hour per unit** | 15A NCAC 02D<br>.0501(c) |
| Nitrogen oxide | 120.4 pounds per hour per boiler* | 15A NCAC 02D<br>.0501(c) |

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| Carbon monoxide | 120.4 pounds per hour per boiler* | 15A NCAC 02D .0501(c) |
| Particulate matter | 0.027 pounds per million Btu heat input per boiler* | 15A NCAC 02D .0530 |
| Sulfur dioxide | 1.47 pounds per million Btu heat input per boiler* | 15A NCAC 02D .0530 |
| Nitrogen oxide | 0.54 pounds per million Btu heat input per boiler* | 15A NCAC 02D .0530 |
| Carbon monoxide | 0.54 pounds per million Btu heat input per boiler* | 15A NCAC 02D .0530 |
| Sulfuric acid mist | 0.019 pounds per million Btu heat input per boiler* | 15A NCAC 02D .0530 |
| PM, $PM_{10}$, NOx, $SO_2$, CO, and VOC | As defined in specific conditions | 15A NCAC 02D .0530(u) |
| Particulate matter | Compliance Assurance Monitoring | 15A NCAC 02D .0614 |
| HAPs | All fuel combinations, based on each of these boilers being a "unit designed to burn biomass/bio-based solid subcategory" as defined in 40 CFR 63.7575:<br>Particulate Matter (filterable only): 0.18 lb/million Btu<br>• Mercury: 0.000005 lb/million Btu<br>• Hydrogen Chloride: 0.02 lb/million Btu<br>• Carbon Monoxide: 508 ppmvd, corrected to 7% $O_2$, 30-day rolling average | 15A NCAC 02D .1109 |
| Particulate matter less than 10 microns in diameter ($PM_{10}$) / Particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) | 0.027 pounds per million Btu heat input per boiler* | North Carolina General Statute 62-133.8(g) "Control of Emissions" Senate Bill 3 (SB3) State Best Available Control Technology (BACT) |
| Nitrogen oxides | 0.54 pounds per million Btu heat input per boiler* *(30 day)* | |
| Carbon monoxide | 0.54 pounds per million Btu heat input per boiler* *(30 day)* | |
| Sulfuric acid mist | 0.019 pounds per million Btu heat input per boiler* | |
| Sulfur dioxide | 1.47 pounds per million Btu heat input per boiler* *(TDF)* | |
| | Burning inherently low sulfur biomass *(wood)* | |
| Volatile organic compounds | Burning biomass<br>*Good Combustion Practices* | |
| Mercury | 5.00 E-6 pounds per million Btu heat input per boiler* | |

* Stack measured or calculated emissions represent the collective emissions for the six boilers **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** in the power units. "Per boiler" emissions are derived by dividing the measured emissions by the boilers in operation during the timeframe specified. Compliance certification on a per boiler basis is based on the common stack emissions performance divided by the boilers in operation at the time of measurement per power unit.
** Stack measured or calculated emissions represent the collective emissions for each unit, Unit 1 **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C)** and Unit 2, **(ES-2-1A, ES-2-1B and ES-2-1C)**.

## 1. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from these sources **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 02D .0516]

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

c. To assure compliance, the Permittee shall monitor the sulfur content of the coal by using coal supplier

certification per total shipment received. The coal supplier certification shall be recorded in a logbook (written or electronic format) per total shipment and include the following information:

i. the name of the coal supplier;
ii. the maximum sulfur content of the coal received per total shipment;
iii. a statement verifying that the methods used to determine the maximum sulfur content of the coal was in accordance with the following:
   A. sampling – ASTM Method D 2234;
   B. preparation – ASTM Method D 2013;
   C. gross calorific value (Btu) – ASTM Method D 5865;
   D. moisture content – ASTM Method D 3173; and
   E. sulfur content – ASTM Method D 3177 or ASTM Method D 4239.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516 if the sulfur content of the coal is not monitored and recorded.

Upon certification of $SO_2$ continuous emission monitoring (CEM) systems, the Permittee shall determine compliance with $SO_2$ emission limit in Section 2.1 A.1.a. above, using $SO_2$ CEM instead of using coal supplier certification. Monitoring and record keeping for $SO_2$ CEM shall be in accordance with 2.1 A.4.cc below. If any 24-hour block average of $SO_2$ exceeds the emission limit per Section 2.1 A.1.a. above or the records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

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

Upon certification of $SO_2$ CEM, the Permittee shall submit reports for $SO_2$ in pounds per million Btu in accordance with Section 2.1 A.4.dd. and ee.

## 2. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

a. The Permittee shall comply with all applicable provisions, including the testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart Db, including Subpart A "General Provisions." [15A NCAC 02D .0524] ID Nos. ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C

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

   i. Before Modifying or Replacing Existing induced Draft Fans on Boilers (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)

   The Permittee shall conduct a performance test for particulate matter within 60 days of achieving the maximum production rate at which the affected facility (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C) will be operated but no later than 180 days after the startup of the furnace sorbent injection (FS1) systems on boilers (ID Nos. ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C) in accordance with General Condition JJ found in Section 3. This testing shall be used consistent with 40 CFR 60 Appendix C when the facility performs stack testing pursuant to Section 2.1 A.2.b.ii. below.

   Prior to modifying/replacing the induced draft fans on boilers (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C), the Permittee shall perform an engineering evaluation demonstrating that the increase in flue gas flow rate will not increase the boiler's potential heat input rate when firing 100% coal, 50% coal/50% TDF, and 25% coal/50% TDF/25%wood, to greater than 250 million Btu/hr.

The Permittee shall submit the results of this engineering evaluation 60 days prior to modification/replacement of the induced draft fans on these boilers.

ii. <u>After Modifying or Replacing Existing Induced Draft Fans on Boilers (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)</u>

The Permittee shall conduct a performance test for particulate matter within 60 days of achieving the maximum production rate at which the affected facility (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C) will be operated but no later than 180 days after the startup of the modified/replaced induced draft fans on boilers (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C) in accordance with General Condition JJ found in Section 3. If the results of this performance test, consistent with 40 CFR 60 Appendix C, demonstrate that increase in particulate matter has occurred at boilers (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C) or the above performance test is not conducted, the modified boilers (ID Nos. ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C) are subject to the applicable requirements for particulate matter (category: boilers modified after February 28, 2005) in accordance with 40 CFR 60 Subpart Db.

Within 60 days of achieving the maximum production rate at which the affected facility (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C) will be operated but no later than 180 days after the startup of the modified/replaced induced draft fans on boilers (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C), the Permittee shall determine, in accordance with General Condition JJ found in Section 3, maximum heat input capacity for each boiler (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C) when firing 100% coal, 50% coal/50% TDF and 25% coal/50% TDF/25%wood, based upon a 4-hour averaging period at a maximum fan capacity. If this demonstration indicates that the maximum heat input capacity exceeds 250 million But/hr for any boiler, the boilers (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C) shall become subject to the requirements in 40 CFR 60 Subpart Da.

**<u>Emission Limitations</u>** [15A NCAC 02D .0524]

c. **Particulate matter** – Particulate emissions from these sources **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** shall not exceed 0.05 pounds per million Btu heat input when firing coal with other fuels.

d. **Nitrogen oxides** –

i. Nitrogen oxides emissions when firing coal shall not exceed 0.60 pounds per million Btu heat input.

ii. Nitrogen oxides emissions from the simultaneous combustion of coal with fuel oil or a mixture of these fuels with natural gas or any other fuel shall not be in excess of the rate calculated by the following formula [40 CFR Part 60, Subpart 60.44b(c)]:

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

Where: $E_n$ = nitrogen oxide emission limit (lb/million Btu)
$H_{go}$ = heat input from combustion of natural gas or distillate oil (million Btu)
$H_{ro}$ = heat input from the combustion of residual oil (million Btu)
$H_c$ = heat input from the combustion of coal (million Btu)

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

e. **Opacity** – These sources **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** shall not cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (six-minute average) each, except for one six-minute period per hour of not more that 27 percent opacity.

**<u>Monitoring</u>** [15A NCAC 02Q .0508(f)]

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

g. 40 CFR 60.48b(b) – The Permittee shall calibrate, maintain, and operate a continuous monitoring system for measuring nitrogen oxide emissions discharged to the atmosphere and record the output of the system. Data reported to meet the requirements of §60.49b shall not include data substituted using the missing data

procedures in Subpart D of Part 75 of 40 CFR, nor shall the data have been bias adjusted according to the procedures of Part 75 of 40 CFR.

h. 40 CFR 60.48b(c) – operation of nitrogen oxide continuous monitoring systems and data recording.
i. 40 CFR 60.48b(d) – measurement of nitrogen oxide 1-hour averages.
j. 40 CFR 60.48b(e) – installation, evaluation, and operation of continuous monitoring systems.
k. 40 CFR 60.48b(f) – continuous monitoring systems breakdowns, repairs, calibration checks and zero and span adjustments.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the monitoring requirements in Sections 2.1 A.2.f. through k. above, are not complied with.

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

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

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the recordkeeping requirements in Sections 2.1 A.2.l. through p. above, are not complied with.

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

q. The Permittee shall submit a summary report of the monitoring and recordkeeping activities, including the requirements of 40 CFR 60.49b(i) and (h), 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.

**3. 15A NCAC 02D .0501(c): COMPLIANCE WITH NATIONAL AMBIENT AIR QUALITY STANDARDS**

a. Particulate matter ($PM_{10}$) emissions from each source **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** shall not exceed 6.02 pounds per hour.
b. Sulfur dioxide emissions shall not exceed:
   i. from each source **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C),** 327.8 pounds per hour, 24-hour average;
   ii. on and after June 24, 2016, from each unit, Unit 1 **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C)** and Unit 2 **(ID Nos. ES-1-2A, ES-2-1B, ES-2-1C),** 453.6 pounds per hour, 1-hour average.
   iii. Within 90 days of permit issuance the Permittee shall provide an ambient monitor or monitors to allow the North Carolina Division of Air Quality to demonstrate that the facility does not cause or contribute to an exceedance of the one hour National Ambient Air Quality Standard for sulfur dioxide. The monitor(s) shall meet the specifications approved by the North Carolina Division of Air Quality.
c. Nitrogen oxide emissions from each source **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** shall not exceed 120.4 pounds per hour.
d. Carbon monoxide emissions from each source **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** shall not exceed 120.4 pounds per hour.
e. The maximum sulfur content of any coal received and burned in these sources **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** shall not exceed 1.0 percent by weight.

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

f. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above any limit given in Section 2.1 A.3.a through d above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(c).

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

g. Particulate matter emissions from these sources **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** shall be controlled by six bagfilters **(ID Nos. CD-1-1A, CD-1-1B, CD-1-1C, CD-2-1A, CD-**

**2-1B and CD-2-1C)**, one each. 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 shall include an annual internal inspection of the bagfilters **(ID Nos. CD-1-1A, CD-1-1B, CD-1-1C, CD-2-1A, CD-2-1B and CD-2-1C)** for structural and fabric filter integrity. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(c) if the bagfilters **(ID Nos. CD-1-1A, CD-1-1B, CD-1-1C, CD-2-1A, CD-2-1B and CD-2-1C)** are not inspected and maintained.

h. The Permittee shall install, operate, and maintain a pressure drop indicator on each bagfilter **(ID Nos. CD-1-1A, CD-1-1B, CD-1-1C, CD-2-1A, CD-2-1B and CD-2-1C)**. The pressure drop across each bagfilter **(ID Nos. CD-1-1A, CD-1-1B, CD-1-1C, CD-2-1A, CD-2-1B and CD-2-1C)** shall not exceed 10 inches of water. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(c) if the pressure drop is not maintained within the prescribed limits.

i. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the pressure drop once weekly at a minimum when the source **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** is operating;
   iii. the results of each inspection;
   iv. a report of any maintenance performed on the bagfilters **(ID Nos. CD-1-1A, CD-1-1B, CD-1-1C, CD-2-1A, CD-2-1B and CD-2-1C)**; and
   v. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(c) if these records are not maintained.

j. The Permittee shall follow the monitoring and recordkeeping requirements in Sections 2.1 A.1.c, 2.1 A.2.f-j and 2.1 A.2.n above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(c) if this monitoring and recordkeeping is not performed.

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

k. Within 30 days of a written request from DAQ, the Permittee shall submit a report of any maintenance performed on the bagfilters **(ID Nos. CD-1-1A, CD-1-1B, CD-1-1C, CD-2-1A, CD-2-1B and CD-2-1C)**.

l. 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.

m. **Option for Obtaining Construction and Operation Permit** [15A NCAC 02Q .0504(d)]
The Permittee shall have one year from the issuance of this permit (05884T20) to file an amended application following the procedures of Section 15A NCAC 02Q .0500.

aa. Sulfur dioxide emissions shall be limited as described in 2.1 A. 3. b. i. and ii. above. [15A NCAC 02D .0501(c)]

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

bb. 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 any limit given in Section 2.1 A. 3. aa. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(c).

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

cc. i. The Permittee shall assure compliance with 2.1 A. 3.b. i. above by determining sulfur dioxide emissions in pounds per hour using a continuous emissions monitoring (CEM) system meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75, except that the lookback periods per 40 CFR 75.33 (Tables 1 and 2) shall consist of the available data up to the appropriate quality-assured hours. Also, the replacement procedures for monitor data availability between 80 and 90 percent may be used at values below 80 percent). The missing

data procedure in Part 75 shall be used whenever the boiler combusts any fuel. Compliance with sulfur dioxide emission standards shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75, except that the lookback periods per 40 CFR 75.33 (Tables 1 and 2) shall consist of the available data up to the appropriate quality-assured hours. Also, the replacement procedures for monitor data availability between 80 and 90 percent may be used at values below 80 percent) shall be summed, and the sum shall be divided by 24. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any 24-hour block average exceeds the limit per Section 2.1 A.3. b. i. above or the records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(c).

ii. The Permittee shall assure compliance with 2.1 A. 3.b. ii. above by determining sulfur dioxide emissions in pounds per hour using a continuous emissions monitoring (CEM) system meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75, except that the lookback periods per 40 CFR 75.33 (Tables 1 and 2) shall consist of the available data up to the appropriate quality-assured hours. Also, the replacement procedures for monitor data availability between 80 and 90 percent may be used at values below 80 percent). The missing data procedure in Part 75 shall be used whenever the boiler combusts any fuel. Compliance with sulfur dioxide emission standards shall be determined using hourly continuous emission monitoring system values beginning at midnight (missing data shall be filled in accordance with 40 CFR Part 75, except that the lookback periods per 40 CFR 75.33 (Tables 1 and 2) shall consist of the available data up to the appropriate quality-assured hours. Also, the replacement procedures for monitor data availability between 80 and 90 percent may be used at values below 80 percent). The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any 1-hour average exceeds the limit per Section 2.1 A.3. b ii. above or the records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0501(c).

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

dd. i. The Permittee shall submit the continuous emissions monitoring data showing the 1-hour and 24-hour values in pounds per hour for sulfur dioxide emissions for each averaging period during the reporting period no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. All instances of deviations from the requirements of this permit must be clearly identified.

ii. "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 02D. The Permittee shall report excess emissions of the emission limitation in 2.1 A. 3. b. ii. pursuant to 02Q .0508(f) by notifying 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.

ee. CEMs Monitor Availability - The Permittee shall submit sulfur dioxide CEM system monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September.

## 4. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. Particulate matter ($PM_{10}$) emissions from each source **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** shall not exceed 0.027 pounds per million Btu heat input.

b. Sulfur dioxide emissions from each source **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** shall not exceed 1.47 pounds per million Btu heat input.

c. Nitrogen oxide emissions from each source **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and**

**ES-2-1C)** shall not exceed 0.54 pounds per million Btu heat input.

d. Carbon monoxide emissions from each source **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** shall not exceed 0.54 pounds per million Btu heat input.

e. Sulfuric acid mist emissions from each source **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** shall not exceed 0.019 pounds per million Btu heat input.

f. The maximum sulfur content of any coal received and burned in these sources **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** shall not exceed 1.0 percent by weight.

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

h. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above any limit given in Section 2.1 A.4.a-e above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

h. Under the provisions of NCGS 143-215.108, the Permittee shall conduct an emission stack test for particulate matter ($PM_{10}$) on *each* source stack **(Unit 1 - ID Nos. ES-1-1A, ES-1-1B, and ES-1-1C; or Unit 2 – ID Nos. ES-2-1A, ES-2-1B and ES-2-1C)** once per permit term to determine the emission rate in pounds per hour and pounds per million Btu for particulate matter ($PM_{10}$) as follows:

   i. the emissions stack test shall include the following operating scenarios:
      A. 10% unadulterated wood, 70% coal, and 20% tire-derived fuels; and
      B. 16% tire-derived fuels and 84% coal.
      If physical design limitations exist which prevent the Permittee from achieving either of the above feed compositions, the Permittee shall conduct the tests with the maximum feasible feed rated of wood, in the first scenario, and maximum feasible feed rates of tire-derived fuels, in the second scenario.
   ii. all testing shall be conducted in accordance with a testing protocol approved by the DAQ, as provided in Section 3, General Condition JJ of this permit.
   iii. the Permittee shall submit a written report of the test results to the DAQ Regional Supervisor within 60 days of completion of each test.

   If the required stack test is not conducted or if the results of this test are above the limits given in Section 2.1 A.4.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

i. The Permittee shall follow the monitoring and recordkeeping requirements in Section 2.1 A.1.c, A.2.f-j and n, and A.3.g-i. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if this monitoring and recordkeeping is not performed.

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

j. The Permittee shall follow the reporting requirements in Section 2.1 A.1.d, 2.1 A.2.p, and 2.1 A.3.k-l above.

aa. Sulfur dioxide emissions from each boiler **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** shall not exceed 1.47 pounds per million Btu heat input. [15A NCAC 02D .0530]

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

bb. 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 any limit given in Section 2.1 A. 4. aa. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

cc. The Permittee shall assure compliance with 2.1 A.4.aa. above by determining sulfur dioxide emissions in pounds per million Btu using a continuous emissions monitoring (CEM) system meeting the requirements of 40 CFR Part 75 except that unbiased values may be used (missing data shall be filled in accordance with 40 CFR Part 75, except that the lookback periods per 40 CFR 75.33 (Tables 1 and 2) shall consist of the available data up to the appropriate quality-assured hours. Also, the replacement procedures for monitor data availability between 80 and 90 percent may be used at values below 80 percent). The missing data procedure in Part 75 shall be used whenever the boiler combusts any fuel. Compliance with sulfur dioxide emission standards shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight. To compute the 24-hour block average, the average hourly values (missing data shall be filled in accordance with 40 CFR Part 75, except that the lookback periods per 40 CFR

75.33 (Tables 1 and 2) shall consist of the available data up to the appropriate quality-assured hours. Also, the replacement procedures for monitor data availability between 80 and 90 percent may be used at values below 80 percent) shall be summed, and the sum shall be divided by 24. The minimum number of data points, equally spaced, required to determine a valid hour value shall be determined by 40 CFR Part 75. If any 24-hour block average exceeds the limits per Section 2.1 A.4. aa. above or the records are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

dd. The Permittee shall submit the continuous emissions monitoring data showing the 24-hour daily block values in pounds per hour for sulfur dioxide emissions for each 24-hour daily block averaging period during the reporting period no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September. All instances of deviations from the requirements of this permit must be clearly identified.

ee. CEMs Monitor Availability - The Permittee shall submit sulfur dioxide CEM system monitor downtime reports, including monitor availability values (as calculated for 40 CFR Part 75) for the last hour of the reporting period, no later than January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 of each calendar year for the preceding three-month period between July and September.

**5. 15A NCAC 02D .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 increasing the feed rate of tire derived fuel above 35% but, less than or equal to 50% of heat input rate in each boiler (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C), installing rotating opposed overfire air systems (ID Nos. CD-1-5A through CD-1-5C and CD-2-5A through CD-2-5C), furnace sorbent injection systems (ID Nos. CD-1-6A through CD-1-6C and CD-2-6A through CD-2-6C) and selective non-catalytic reduction systems (CD-1-7A through CD-1-7C and CD-2-7A through CD-2-7C) on boilers (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C), and installing alkaline sorbent silos (ID Nos. ES-9A and CD-9B) and associated vent fabric filters (ID No. CD-9A and CD-9B).

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.5.b. through d. below.

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

b. Under the provisions of NCGS 143-215.108, the Permittee shall conduct emissions testing for boilers (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C) for PM, $PM_{10}$, and VOC, by October 8, 2015, if any of the conditions in (i) through (iv) below have commenced: (i) commencement of feeding tire derived fuel above 35%, but less than or equal to 50% of the heat input rate in any individual boiler, or (ii) installing rotating opposed overfire air system on any individual boiler, or (iii) installing furnace sorbent injection system on any individual boiler, or (iv) installing selective non-catalytic reduction system[5] on any individual boiler, or (v) installing alkaline sorbent silos and associated vent fabric filters.

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

The Permittee shall establish emission factors based on the average of all runs performed in the units of pounds per million Btu heat input for PM, $PM_{10}$, and VOC. In addition, the emission factors for NOx, $SO_2$, and CO, shall be established as follows:

The Permittee shall establish emission factor for NOx in the unit of pounds per million Btu heat input, using the CEM data in Section 2.1 A.2.g. above.

The Permittee shall establish emission factor for $SO_2$ in the unit of pounds per million Btu heat input, using the CEM data in Section 2.1 A.4.cc. above.

The Permittee shall establish emission factor for CO in the unit of pounds per million Btu heat input, using the CEM data in Section 2.1 A.7.k. below.

The emissions factors for PM, $PM_{10}$, VOC, NOx, $SO_2$, and CO shall be used along with the actual fuel input rates to calculate monthly emissions from each boiler (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C). The calculated monthly emissions shall be used in reporting actual emissions for these pollutants in Section 2.1 A.5.d. below.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530(u), if the emissions testing for each boiler is not conducted for PM, $PM_{10}$, and VOC, by October 8, 2015, or the emissions factors for PM, $PM_{10}$, VOC, NOx, $SO_2$, and CO, are not established.

[5] The installation of selective non-catalytic reduction systems on each boiler is optional.

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

c. Beginning in calendar year 2015, the Permittee shall maintain records of actual emissions for PM, $PM_{10}$, NOx, $SO_2$, CO, and VOC in tons per year on a calendar year basis for five years following the resumption of regular operations after (i) commencement of feeding tire derived fuel above 35%, but less than or equal to 50% of the heat input rate in any individual boiler (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C), or (ii) installing rotating opposed overfire air system (ID Nos. CD-1-5A through CD-1-5C and CD-2-5A through CD-2-5C) on any individual boiler (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C), or (iii) installing furnace sorbent injection system (ID Nos. CD-1-6A through CD-1-6C and CD-2-6A through CD-2-6C) on any individual boiler (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C), or (iv) installing selective non-catalytic reduction system (CD-1-7A through CD-1-7C and CD-2-7A through CD-2-7C) on any individual boiler (ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C), or (v) installing alkaline sorbent silos (ID Nos. ES-9A and CD-9B) and associated vent fabric filters (ID No. CD-9A and CD-9B).

The Permittee shall make the information, documented and maintained in this Section 2.1 A.5.c., available to the Director or the general public pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530(u), if the recordkeeping requirements in this Section 2.1 A.5.c. are not complied with, or the records are not made available to the Director or the general public.

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

d. The Permittee shall submit a report for PM, $PM_{10}$, NOx, $SO_2$, CO, and VOC emissions to the Director within 60 days after the end of each calendar year during which the records in Section 2.1 A.5.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 PM, PM10, NOx, $SO_2$, CO, and VOC will be compared to the respective projected actual emissions as included below:

| Pollutant | Projected Actual Emissions Emission Factor<br><br>Lb/Million Btu | Projected Actual Emissions**<br><br>Tons per Year |
|---|---|---|
| PM | 0.0184* | 86.1 |
| $PM_{10}$ | 0.0184* | 83.2 |
| NOx | 0.35 | 1296 |
| $SO_2$ | 1.37 (Coal/TDF)<br>0.021 (Wood) | 3700 |
| CO | 0.077 (Coal/TDF)<br>0.1 (Wood) | 306 |
| VOC | 0.0037 (Coal/TDF)<br>0.017 (Wood) | 27 |

* The emission factor is for boiler only.

** The projected actual emissions 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.

## 6. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING

a. Per 40 CFR 64 and 15A NCAC 02D .0614, the Permittee shall comply with the following.

b. **Background**

i. Emission Unit(s).

(A) Description: Six watertube design coal/natural gas/No. 2 and No. 4 fuel oil/tire derived fuel/pelletized paper fuel/flyash briquette/unadulterated wood/creosote treated wood-fired boilers

(B) Identification. **ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C**

ii. Applicable Regulation, Emission Limit, and Monitoring Requirements.

(A) Regulations: 15A NCAC 02D .0524 (Subpart Db)
15A NCAC 02D .0501(c)
15A NCAC 02D .0530

(B) Emission limits:

1. 0.05 pounds per million Btu heat input (40 CFR 60.43b(a)(1)) – [particulate matter]
2. 6.02 pounds per hour per boiler [$PM_{10}$]
3. 0.027 pounds per million Btu heat input per boiler [$PM_{10}$]

(C) Control Technology. Six bagfilters **(ID Nos. CD-1-1A, CD-1-1B, CD-1-1C, CD-2-1A, CD-2-1B and CD-2-1C)**

c. **Monitoring Approach**. The key elements of the monitoring approach for particulate matter, including parameters to be monitored, parameter ranges and performance criteria are presented in the following table.

| | 1 | 2 |
|---|---|---|
| I. Indicator | Visible emissions | Pressure drop |
| Measurement Approach | Visible emissions from the fabric filter will be monitored continuously using COM system on each common stack | Pressure drop across the fabric filter is measured with a differential pressure gauge |
| II. Indicator Range | An excursion is defined as visible emissions in amounts greater than or equal to 15% (six-minute average). Excursions trigger an inspection, corrective action, and a reporting requirement. | An excursion is defined as a pressure drop greater than 9.5 inches of water. Excursions trigger an inspection, corrective action, and a reporting requirement. |
| QIP Threshold | The QIP threshold is six excursions in a 6-month reporting period. | None selected |
| III. Performance Criteria | | |
| A. Data Representativeness | Measurements are being made at the emission point (fabric filter outlet) of each common stack | Pressure taps are located at the fabric filter inlet and outlet. The gauge has a minimum accuracy of 0.5 inches of water. |
| B. Verification of Operational Status | NA | NA |
| C. QA/QC Practices | The COM systems shall be calibrated, maintained and operated according to 40 CFR 60, Appendix F, Procedure 3. | The pressure gauge is checked daily for operation. |
| D. Monitoring Frequency | Data is collected continuously with COM systems. | Pressure drop is monitored daily. |
| E. Data Collection Procedures | Date from the COM systems is collected electronically and maintained on the Data Acquisition and Handling System computer along with information on the operating status of the boilers. | Pressure gauge readings are manually recorded daily. |
| F. Averaging Periods | NA | NA |

d. **Justification**

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

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

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

iii. Rationale for Section of Indicator Ranges. Per operating knowledge of the systems, the facility has selected an indicator range of greater than or equal to 15% opacity (six-minute average). When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported. This indicator range was selected because: (1) an increase in visible emissions is indicative of an increase in particulate emissions; and (2) a COMs is a well established monitoring technique for these sources.

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

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

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

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

**7. 15A NCAC 02D .1109: Case-by-Case MACT**

a. The Permittee shall comply with this CAA §112(j) standard until **May 19, 2019**. The initial compliance date for the applicable CAA §112(d) standard for "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters" is **May 20, 2019**.

**Emissions Standards**

b. The following emission standards shall apply to the affected boilers **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)**:

i. All fuel combinations, based on each of these boilers being a "unit designed to burn biomass/bio-based solid subcategory" as defined in 40 CFR 63.7575:

(A) Particulate Matter (filterable only): 0.18 lb/million Btu
(B) Mercury: 0.000005 lb/million Btu
(C) Hydrogen Chloride: 0.02 lb/million Btu
(D) Carbon Monoxide: 508 ppmvd, corrected to 7% $O_2$, 30-day rolling average

The initial compliance date for the emission standards, operating requirements, and associated monitoring, recordkeeping, and reporting requirements is June 2, 2013. These terms need not be included in the annual compliance certification until after the initial compliance date. These standards shall apply all times, except for periods of startup, shutdown, and malfunction. The Permittee shall follow the procedures in 15A NCAC 02D. 0535 for any excess emissions that occur during the periods of startup, shutdown, or malfunction.

**Operating Requirements**

c. If the facility utilizes a fabric filter to comply with the particulate matter (PM) (filterable only) and mercury (Hg) emissions standards in Section 2.1 A.7.b. above, the Permittee shall comply with the following:
   i. Install and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month period; or,
   ii. Maintain opacity of exhaust from the control device at less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent.
d. If the facility utilizes a sorbent injection system (such as FSI) to comply with the hydrogen chloride (HCl) emissions standards listed in Section 2.1 A.7.b. above, the Permittee shall maintain the minimum sorbent injection rate at or above the operating levels, adjusted for variability, established during the performance test that demonstrated compliance with the applicable emissions standards.
e. If the facility utilizes fuel analysis to comply with the Hg and HCl emissions standards in Section 2.1 A.7.b. above, the Permittee shall maintain the fuel type or fuel mixture such that the Hg and HCl emissions rates calculated according to the procedures in Section 2.1 A.7.i. below are less than the applicable emission standards.

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

f. No initial or subsequent annual testing is required to demonstrate compliance with the emissions standards associated with burning of No. 2 fuel oil and natural gas in the affected boilers.
g. No initial or subsequent annual testing is required if a facility can demonstrate compliance with applicable emissions standards using fuel analysis according to the procedures in Section 2.1 A.7.i. below.
h. Initial Testing Requirement -The Permittee shall conduct an initial compliance test while burning mixed fuel of a ratio, by heat input, of approximately 50 percent wood and 50 percent coal/TDF for emissions of PM (filterable only), Hg, HCl, and CO.

The initial compliance test for these fuels shall be conducted within 180 days of the initial compliance date. The initial compliance test is not required if the NC DAQ – SSCB approves any previously conducted performance test as an equivalent compliance demonstration. Testing shall be conducted in accordance with General Condition JJ found in Section 3.

The Permittee shall establish operating parameters, as applicable, during the initial compliance test in accordance with the following Table.

**Operating Parameters Established by Performance Testing**

| Control Device | Pollutant(s) | Requirements for Performance Test |
|---|---|---|
| Sorbent Injection System (such as FSI) | HCl | 1. Collect sorbent injection rate data every 15 minutes during the entire period of the performance test; and,<br>2. Determine the average sorbent injection rate for each individual test run in the 3-run performance test by computing the average of all the 15-minute readings taken during each test run. |

The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1109 if the required tests are not conducted, or if the results of the emissions tests exceed the emission standards in Section 2.1.A.7.b. above, or if the operating parameters, as applicable, are not established.

i. If the Permittee chooses to demonstrate compliance with the emissions standards in Section 2.1 A.7.b. above using the fuel analyses, the following procedures shall be complied with.
   i. Develop and submit a site-specific fuel analysis plan to the NC DAQ – SSCB for review and approval no later than 60 days before the date that the Permittee plans to demonstrate compliance. 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 $Cl_2$ and Hg.
   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 Hg and $Cl_2$ 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 |
|---|---|---|
| Hg and HCl | Collect Fuel Samples | • Procedure in paragraph c. above; or,<br>• ASTM D2234-00, D2234M-03 (for coal) (IBR, see 40 CFR 63.14(b)); or,<br>• ASTM D6323-98 (2003) (for biomass) (IBR, see 40 CFR 63.14(b)). |
| | Prepare Composited Fuel Samples | • SW-846-3050B (for solid samples); or,<br>• SW-846-3020A (for liquid samples); or,<br>• ASTM D2013-04 (for coal) (IBR, see 40 CFR 63.14(b)); or,<br>• 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,<br>• 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,<br>• ASTM E871-82 (1998) (IBR, see 40 CFR 63.14(b)). |

| Pollutant(s) | Task | Method |
|---|---|---|
| Hg | Measure Hg Concentration in Sample | • ASTM D6722-01 (for coal) (IBR, see 40 CFR 63.14(b)); or,<br>• SW-846-7471A (for solid samples); or,<br>• SW-846-7470A (for liquid samples). |
| | Convert Concentration into lbs/MMBtu | Method 19 F-factor methodology in 40 CFR 60, Appendix A |
| HCl | Measure HCl Concentration in Sample | • SW-846-9250 or ASTM D6721-01 (for coal); or,<br>• 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 ($C_{input}$) during the initial performance testing according to the following procedures:
(A) Determine the permitted fuel type or fuel mixture that has the highest content of chlorine.
(B) During the performance testing for HCl, 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 or process heater 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. If multiple fuel types are not fired during the performance testing, insert a value of "1" for $Q_i$.
n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

vi. Establish the maximum Hg fuel input level ($Mercury_{input}$) during the initial performance testing using the procedures provided below.
(A) Determine the fuel type or fuel mixture that can be burned in the boiler or process heater with the highest content of Hg.
(B) During the compliance demonstration for Hg, determine the fraction of total heat input for each fuel burned ($Q_i$) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned ($HG_i$).
(C) Establish a maximum mercury input level using the following equation:

$$Mercury_{input} = \Sigma_{i=1 \text{ to } n} [ HG / Q_i ]$$

$Mercury_{input}$ = Maximum amount of mercury entering the boiler or process heater through fuels burned in lbs/million Btu.
$HG_i$ = Arithmetic average concentration of mercury 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. If multiple fuel types are not fired during the performance testing, insert a value of "1" for $Q_i$.
n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of Hg.

vii. If the affected source can burn more than one fuel type, determine the fuel mixture that would result in the maximum emission rates of the pollutant(s) for which compliance will be demonstrated by fuel analysis.

viii. 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.

$$P_{90} = \text{mean} + (SD \times t)$$

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.

ix. To demonstrate compliance with the applicable emission standard for HCl, the calculated HCl emission rate, using the following equation, for the affected source shall be less than the applicable emission standard.

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

Where:

HCl = HCl emission rate from the boiler or process heater 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 2.1 A.7.i.viii. above)

$Q_i$ = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If the affected source does not burn multiple fuel types, insert a value of "1" for $Q_i$.

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.

x. To demonstrate compliance with the applicable emission standard for mercury, the calculated mercury emission rate, using the following equation, for the affected source shall be less than the applicable emission standard.

$$\text{Mercury} = \Sigma_{i=1 \text{ to } n} = [\, HG_{i90} \times Q_i \,]$$

Where:

Mercury = Mercury emission rate from boiler or process heater in lbs/million Btu.

$HG_{i90}$ = 90th percentile confidence level concentration of mercury in fuel type, i, in lbs/MMBtu (calculated using Equation in Section 2.1 A.7.i.viii. above)

$Q_i$ = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of mercury. If the affected source does not burn multiple fuel types, insert a value of "1" for $Q_i$.

n = Number of different fuel types burned in the affected source for the mixture that has the highest mercury content.

The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1109 if the requirements of this Section 2.1 A.7.i. are not complied with or the calculated emission rates of Hg or HCl exceed the applicable emissions standards in Section 2.1.A.7.b. above.

j. Annual Testing Requirement - The Permittee shall conduct subsequent performance tests for mercury, hydrogen chloride and particulate matter (filterable only) on an annual basis to comply with the emissions standards in Section 2.1 A.7.b. above, when firing coal or tire derived fuel or pelletized paper fuel or flyash briquette, No. 4 fuel oil, and green wood, unless it meets the requirements listed in i. through iii. below. Annual performance tests, if required, shall be completed between 10 and 12 months after the previous performance test.
   i. The Permittee may conduct performance tests less often for a given pollutant if the performance tests for at least 3 consecutive years show compliance with the emission limit. In this case, the Permittee need not conduct a performance test for that unit, consisting of three boilers, for that pollutant for the next 2 years, but shall conduct a performance test during the third year and no more than 36 months after the previous performance test. If any unit shows noncompliance with an emission standard, this shall be considered a separate compliance issue with each individual boiler.
   ii. If the affected unit continues to meet the emission limit, the Permittee may conduct performance tests every third year, but each such performance test shall be conducted no more than 36 months after the previous performance test.
   iii. If a performance test shows noncompliance with an emission limit, the Permittee shall conduct annual performance tests for that pollutant until all performance tests over a consecutive 3-year period show compliance.
   iv. If the Permittee uses fuel analysis to demonstrate compliance with the emissions standards in Section 2.1 A.7.b. above, the Permittee shall conduct a fuel analysis for each type of fuel burned no later than 5 years after the previous fuel analysis.

   The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1109 if any subsequent annual tests or fuel analysis are not conducted, or if the results of the emissions tests exceed the applicable emissions standards in Section 2.1.A.7.b. above.

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

k. For complying with the emission standards associated with coal/tire derived fuel/pelletized paper fuel/flyash briquette, No. 4 fuel oil, dry wood, and green wood burning, the Permittee shall install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide and oxygen or carbon dioxide according to the procedures listed in i. through iv. below. The carbon monoxide and oxygen or carbon dioxide shall be monitored at the same location at the outlet of the unit.
   i. Each CEMS shall be installed, operated, and maintained according to the applicable procedures under Performance Specification (PS) 3 or 4A of 40 CFR 60, Appendix B, and according to the site-specific monitoring plan (See Section 7).
   ii. Conduct a performance evaluation of each CEMS according to the requirements in 40 CFR 63.8 and according to PS 4A of 40 CFR 60, Appendix B.
   iii. Each CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
   iv. The CEMS data shall be reduced as specified in 40 CFR 63.8(g)(2).
   v. An alternate monitoring method may be used by substituting carbon dioxide instead of oxygen to calculate carbon monoxide for purposes of CAA 112(j) standard and 15A NCAC 02D. 1109 only. A carbon dioxide diluent cap of 5.0% can be used if carbon dioxide concentrations fall below 5.0%. Based on 40 CFR Part 60 Appendix A Method 19 Equations 19-1 and 19-7, the following formula can be used as an alternate approach to calculate carbon monoxide corrected to 7% oxygen:

$$C_d = C_w \times \frac{Fc}{Fd} \times \frac{100}{\%CO2w} \times \frac{(20.9 - \%O2\ correction)}{20.9}$$

Where:

$C_d$ = pollutant concentration, dry basis
$C_w$ = pollutant concentration, wet basis
$F_c$ = Method 19 carbon F-factor for wood
$F_d$ = Method 19 wet F-factor for wood
$\%O_2$ correction = 7%

vi. The Permittee shall calculate and record a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceding 30 operating days. This 30-day rolling average for CO will begin on November 29, 2013, and the CO CEMS must be certified and operable by that date.

vii. Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the monitor shall continuously record (or collect data at all required intervals) at all times that the affected source is operating.

viii. For purposes of calculating data averages, the Permittee may not use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities, or when the boiler or process heater is operating at less than 50 percent of its rated capacity. The Permittee shall use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

ix. A 30-day rolling average emission rate above the applicable emission limitation shall constitute a violation of the standard.

x. The CEMS monitor downtime (MD) shall not exceed 5.0 percent.

**Percent Monitor Downtime (%MD) Calculation:**

$$\%MD = \frac{Total\ Monitor\ Downtime^{*}}{Total\ Source\ Operating\ Time^{**}} x\,100$$

* Total Monitor Downtime includes Quality Assurance (QA) activities unless exempted by regulation or defined in an agency approved QA Manual. The amount of exempt QA Time will be reported in the quarterly report as such.
** If a source operates less than 2200 hours during any quarter, the source may calculate the %MD using all operating data for the current quarter and the preceding quarters until 2200 hours of data are obtained. [N.C.G.S. 143-215.110]

The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1109 if the requirements of this Section 2.1 A.7.k. are not complied with or any 30-day rolling average emission rate of CO is above the applicable CO emissions standards in Section 2.1 A.7.b. above when burning coal, tire derived fuel, pelletized paper fuel, flyash briquette, No. 4 fuel oil, dry wood, and green wood.

l. If the option to comply with the opacity operating requirement is selected in Section 2.1 A.7.c.above, the Permittee shall install, operate, certify and maintain each continuous opacity monitoring system (COMS) according to the procedures listed below.

i. Each COMS shall be installed, operated, and maintained according to PS 1 of 40 CFR 60, Appendix B.

ii. Conduct a performance evaluation of each COMS according to the requirements in 40 CFR 63.8 and according to PS 1 of 40 CFR 60, Appendix B.

iii. As specified in 40 CFR 63.8(c)(4)(i), each COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

iv. The COMS data shall be reduced as specified in 40 CFR 63.8(g)(2).

v. Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.

vi. Include in the site-specific monitoring plan (See Section 7) procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in 40 CFR 63.8(d). At a minimum, the monitoring plan shall include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

vii. Operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of 40 CFR 63.8(e). Identify periods the COMS is out-of-control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.

viii. Determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected for periods during which the COMS is not out of control.

The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1109 if the requirements of this Section 2.1 A.7.l. are not complied with or any 6-minute average of opacity exceeds the operating requirement in Section 2.1 A.7.c.ii. above.

m. For each operating limit that requires the use of a CMS, the Permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures listed below.

i. The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. A valid hour of data must have a minimum of four successive cycles of operation.

ii. Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), conduct all monitoring in continuous operation at all times that the affected unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

iii. For purposes of calculating data averages, the Permittee may not use data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities. The Permittee must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

iv. Determine 3-hour block average of all recorded readings, except as provided in paragraph iii. above.

v. Record the results of each inspection, calibration, and validation check.

vi. Operation above the established maximum or below the established minimum operating limits shall constitute a violation of established operating limits.

The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1109 if the requirements of this Section 2.1 A.7.m. are not complied with.

n. If the option to comply with the fabric filter bag leak detection system operating requirement in Section 2.1 E.7.c. above is selected, the Permittee shall install, calibrate, maintain, and continuously operate a bag leak detection system as specified below:

i. Install and operate a bag leak detection system for each exhaust stack of the fabric filter.

ii. Each bag leak detection system shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA-454/R-98-015, September 1997.

iii. The bag leak detection system shall be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter or less.

iv. The bag leak detection system sensor shall provide output of relative or absolute particulate matter loadings.

v. The bag leak detection system shall be equipped with a device to continuously record the output signal from the sensor.

vi. The bag leak detection system shall be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm shall be located where it is easily heard by plant operating personnel.

vii. For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system shall be installed in each baghouse compartment or cell.

viii. Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1109 if the requirements of this Section 2.1 E.7.n. are not conducted with.

o. If an affected source unit is controlled with a fabric filter and the facility demonstrates continuous compliance using a bag leak detection system, the Permittee shall:
   i. Initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions as soon as practical, and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6–month period.
   ii. Maintain records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken.
   iii. Record the percent of the operating time during each 6-month period that the alarm sounds.
      (A) If inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted.
      (B) If corrective action is required, each alarm shall be counted as a minimum of 1 hour.
      (C) If it takes longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.

   The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1109 if the requirements of this Section 2.1 A.7.o. are not complied with or if the alarm on the fabric filter leak detection system sounds more than 5 percent of the operating time during any 6–month period.

p. For each operating requirement that requires the use of equipment to monitor sorbent injection rate (*e.g.*, weigh belt, weigh hopper, or hopper flow measurement device), the Permittee shall meet the requirements in Section 2.1 A.7.m. above, in addition to the following requirements:
   i. Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.
   ii. Install and calibrate the device in accordance with manufacturer's procedures and specifications.
   iii. At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.

   The Permittee shall be deemed in non-compliance with 15A NCAC 02D .1109 if the requirements of this Section 2.1 A.7.p. are not complied with.

**Recordkeeping Requirements** [15A NCAC 02Q .0508(f)]

q. The Permittee shall maintain a copy of each notification and report required by this standard, including all documentation supporting any Notification of Compliance Status.
r. The Permittee shall maintain records of performance tests, fuel analyses, or other compliance demonstrations, CMS performance evaluations, and opacity observations.
s. For each required CEMS and COMS, the Permittee shall maintain the following records:
   i. All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report);
   ii. A record of each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);
   iii. All CMS calibration checks; and,
   iv. All adjustments and maintenance performed on CMS;
t. The Permittee shall maintain records of all monitoring data and calculated averages for applicable operating requirements such as opacity, fabric filter leak detection system alarm sounding, and sorbent injection rate, used to demonstrate compliance with the standard.
u. For the affected boiler, the Permittee shall maintain the following records:
   i. Records of monthly fuel use by each affected source, including the type(s) of fuel and amount(s) used.
   ii. A copy of all calculations and supporting documentation of maximum $Cl_2$, and Hg fuel input that were conducted to demonstrate compliance with and associated emissions standards through performance testing. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum $Cl_2$, and Hg fuel input. The Permittee may use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the Permittee shall calculate $Cl_2$ and Hg fuel input for each boiler and process heater.

iii. A copy of all calculations and supporting documentation of HCl and Hg emission rates that were conducted to demonstrate compliance with the associated limits through fuel analysis. Supporting documentation should include results of any fuel analyses and basis for the estimate of emission rate. The Permittee may use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, the Permittee shall calculate the emission rate for each boiler and process heater.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1109 if the records required in Section 2.1 A.7. q. through u. are not kept.

**Reporting Requirements** [15A NCAC 02Q .0508(f)]

v. Performance Testing and Fuel Analyses. **For each required performance test or fuel analyses, the Permittee shall comply with the notification and reporting requirements in General Condition JJ of its Title V air quality permit.** The Permittee shall report the results of each performance test or fuel analyses within 60 days after such event. These reports should also include the verification that the operating requirements for the affected boilers have not changed or provide documentation of revised operating requirements.

w. Notification of Compliance Status. The Permittee shall submit a Notification of Compliance Status that meets the requirements of §63.9(h)(2)(ii) before the close of business on the 60th day following the completion of the final required performance test and/or other initial compliance demonstration. The Notification of Compliance Status report shall contain the following information, as applicable:
   i. A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test.
   ii. Summary of the results of all performance tests, fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits.
   iii. Identification of whether the facility is complying with the PM emission limit or the alternative TSM emission limit.
   iv. Identification of whether the facility demonstrated compliance with each applicable emission limit through performance testing or fuel analysis.
   v. Identification of whether the facility plans to demonstrate compliance by emissions averaging.
   vi. A certification signed by the Responsible Official that the facility has met all applicable emission limits and work practice standards.
   vii. A summary of the CO emissions monitoring data and the maximum CO emission levels recorded during the performance test to show that the facility has met any applicable work practice standard in Section 2.
   viii. If the affected source fires only gaseous fuel and/or distillate fuel oil, include a certification of such that is signed by the Responsible Official.

x. Semiannual Summary Report. The Permittee shall submit a summary report 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. The first summary report shall be required on January 31, 2014. The report shall include the following:
   i. Company name, address and facility ID number;
   ii. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report;
   iii. Date of report and beginning and ending dates of the reporting period;
   iv. The total fuel use by each affected source for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure;
   v. A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.
   vi. A signed statement indicating that no new types of fuels were fired in the affected sources.

**State-enforceable only**

8. **Best Available Control Technology (BACT):**
**General Assembly of North Carolina, Session Law 2007-397, Senate Bill 3 (SB3)** - Under the provisions of a Renewable Energy and Energy Efficiency Portfolio Standard (REPS), the Permittee will be categorized as a new renewable energy facility that delivers electric power to an electric power supplier. SB3, pursuant to North Carolina General Statute (NCGS) 62-133.8(g) requires biomass combustion processes at a new renewable energy facility to meet Best Available Control Technology (BACT).
   A. In order to comply with the BACT determination pursuant to NCGS 62.133.8(g) for each pollutant, the following shall apply:
      1. $PM_{10}$ emissions shall not exceed 0.027 pounds per million Btu heat input per boiler[6]. *(Stack test: 3-run average for both filterable and condensable)*
      2. Nitrogen oxide emissions shall not exceed 0.54 pounds per million Btu heat input per boiler[6]. *(CEMS: 30-day rolling average)*
      3. Carbon monoxide emissions shall not exceed 0.54 pounds per million Btu heat input per boiler[6]. *(CEMS: 30-day rolling average)*
      5. Sulfuric acid mist emissions shall not exceed 0.019 pounds per million Btu heat input per boiler[6].
      6. Sulfur dioxide emissions shall not exceed 1.47 pounds per million Btu heat input per boiler[6] when burning tire derived fuel (TDF). *(CEMS: 30-day rolling average)*
      7. Inherently low sulfur biomass/wood shall be burned in the boilers.
      8. Volatile organic compounds emissions from the biomass-fired boilers shall be minimized by utilizing Good Combustion Practices.
      9. Mercury emissions shall not exceed 5.00 E-6 pounds per million Btu heat input per boiler[6]. *(Stack test: 3-run average)*

   **Testing** [15A NCAC 02Q .0508(f)]
   B. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ.
      1. $PM_{10}$ emission test results (lb/million Btu) based on the testing requirements in Section 2.1 A.4.h. above shall be used to demonstrate compliance with the $PM_{10}$ State BACT limits listed above in this Section.
      2. Mercury emission test results (lb/million Btu) based on the testing requirements in Section 2.1 A.7.j. above shall be used to demonstrate compliance with the mercury State BACT limits listed above in this Section.

   **Monitoring/Recordkeeping** [15A NCAC 02Q .0508(f)]
   C. The Permittee shall follow the monitoring and recordkeeping requirements below:
      1. Section A.3.g-i. for complying with the $PM_{10}$ SB3 BACT limit.
      2. Section 2.1 A.2.f-j. and n. for complying with the nitrogen oxide SB3 BACT limit.
      3. Section 2.1 A.7.k., m., and r-t. for complying with the carbon monoxide SB3 BACT limit.
      4. Section 2.1 A.4.cc. for complying with the sulfur dioxide SB3 BACT limit when burning TDF.
      5. Section 2.1 A.7.u.i. for monthly recordkeeping of the amounts each fuel fired in the boilers.

   **Reporting** [15A NCAC 02Q .0508(f)]
   D. The Permittee shall submit a summary report of monitoring and recordkeeping activities detailed in Sections 2.1 A.2.p. and q., 2.1 A.3.k-l., 2.1 A.4.dd-ee., and 2.1 A.7.x., above and 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.

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[6] Stack measured or calculated emissions represent the collective emissions for the six boilers **(ID Nos. ES-1-1A, ES-1-1B, ES-1-1C, ES-2-1A, ES-2-1B and ES-2-1C)** in the power units. "Per boiler" emissions are derived by dividing the measured emissions by the boilers in operation during the timeframe specified. Compliance certification on a per boiler basis is based on the common stack emissions performance divided by the boilers in operation at the time of measurement per power unit.

**B. Six coal bunkers (ID Nos. ES-2A through ES-2F) and associated bagfilters (ID Nos. CD-2A through CD-2F)**
**Two flyash silos with dedicated wet slurry pugmills for unloading (ID Nos. ES-3A and ES-3B) and associated binvents (ID Nos. CD-3A and CD-3B)**
**Four ash system vacuum transport pumps (ID Nos. ES-4A through ES-4D) and associated filters (ID Nos. CD-4A through CD-4D), two bagfilters (ID Nos. CD-4E and CD-4F), and two simple cyclones (ID Nos. CD-4G and CD-4H)**

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

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| Visible emissions | 20 percent opacity | 15A NCAC 02D .0521 |
| Particulate matter | **(ID Nos. ES-2A through ES-2F)**<br>Fuel bunkers for coal, tire-derived fuel, pelletized paper, and flyash briquette handling, only<br>$2.7 \times 10^{-5}$ pounds per hour – each fuel bunker<br><br>**(ID Nos. ES-3A and ES-3B)**<br>Flyash silos<br>0.032 pounds per hour – each ash silo<br><br>**(ID Nos. ES-4A through ES-4D)**<br>Ash transport<br>0.032 pounds per hour – each ash silo pump | 15A NCAC 02D .0530 |

**1. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

a. Visible emissions from these sources **(ID Nos. ES-2A through ES-2F, ES-3A, ES-3B, and ES-4A through ES-4D)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent opacity not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521(d)]

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. To assure compliance, once a week the Permittee shall observe the emission points from these sources **(ID Nos. ES-2A through ES-2F, ES-3A, ES-3B, and ES-4A through ES-4D)** for any visible emissions above normal. If visible emissions from these sources **(ID Nos. ES-2A through ES-2F, ES-3A, ES-3B, and ES-4A through ES-4D)** are observed to be above normal, the Permittee shall:
   i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   ii. demonstrate that the percent opacity from the emission points of the emission sources **(ID Nos. ES-2A through ES-2F, ES-3A, ES-3B, and ES-4A through ES-4D)** in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 B.1.a. above.

   If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

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

**2. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

a. When handling coal, tire-derived fuel, pelletized paper, and/or flyash briquettes, particulate matter emissions from each source **(ID Nos. ES-2A through ES-2F)** shall not exceed $2.7 \times 10^{-5}$ pounds per hour.

b. Particulate matter emissions from each source **(ID Nos. ES-3A and ES-3B)** shall not exceed 0.032 pounds per hour.

c. Particulate matter emissions from each source **(ID Nos. ES-4A through ES-4D)** shall not exceed 0.032 pounds per hour.

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

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

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the binvents, cyclones, in-line filters, and bagfilters are not inspected and maintained.

e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on site and made available to an authorized DAQ representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on the control devices; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained.

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

f. Upon request from the DAQ, the Permittee shall submit, within 30 days of such request, a report of any maintenance performed on a control device.

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

**C. Coal unloading/storage and transfer operations (ID No. ES-5) and associated wet suppression system (ID No. Wetsup)**

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

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| Visible emissions | 20 percent opacity | 15A NCAC 02D .0521 |
| Particulate matter | Wet suppression shall be used on the following:<br><br>-rail car unloading<br>-coal pile load-in/out<br>-wind erosion coal piles | 15A NCAC 02D .0530 |

**1. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

a. Visible emissions from this source **(ID No. ES-5)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent opacity not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521(d)]

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. To assure compliance, once a week the Permittee shall observe this source **(ID No. ES-5)** for any visible emissions above normal. If visible emissions from this source **(ID No. ES-5)** are observed to be above normal, the Permittee shall:
   i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   ii. demonstrate that the percent opacity from the emission points of the emission source **(ID No. ES-5)** in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 C.1.a. above.

   If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

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

**2. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

a. The Permittee shall employ wet suppression on the rail car unloading, the coal pile load-in/out, and the wind erosion coal piles. [15A NCAC 02D .0530]

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

b. Particulate matter emissions from this emission source **(ID Nos. ES-5)** shall be controlled by wet suppression **(ID No. Wetsup)**. To assure compliance, the Permittee shall perform inspections and maintenance on the wet suppression system **(ID No. Wetsup)** as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include a monthly external inspection of the system for integrity of piping and nozzles. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the system is not inspected and maintained.

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

c. A wet suppression log shall be maintained indicating areas and dates wet suppression was applied. No reporting is required but the log shall be made available to a DAQ representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the wet suppression log is not maintained.

d. The results of inspection and maintenance activities shall be maintained in a logbook (written or electronic format) onsite and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each action or inspection;
   iii. a report of any maintenance performed on the wet suppression system **(ID No. Wetsup)**; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not maintained.

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

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

f. The Permittee shall submit a 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.

## D. Two cooling towers (ID Nos. ES-8A and ES-8B)

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

| Regulated Pollutant | Limits/Standards | | Applicable Regulation |
|---|---|---|---|
| particulate matter | $E = 4.10 \times P^{0.67}$ | for $P \leq 30$ tons/hr | 15A NCAC 02D .0515 |
| | or | | |
| | $E = 55.0 \times P^{0.11} - 40$ | for $P > 30$ tons/hr | |
| | where: | | |
| | E = allowable emission rate in pounds per hour | | |
| | P = process weight rate in tons per hour | | |

**1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

a. Emissions of particulate matter from these sources (ID Nos. ES-8A and ES-8B) shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 02D .0515(a)]

$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour or
$E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons per hour

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

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

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in 2.1 D.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]

c. No monitoring/recordkeeping/reporting is required for particulate matter emissions from these sources.

**E. Two alkaline sorbent (limestone/lime/trona) silos (ID Nos. ES-9A and ES-9B) and associated vent fabric filters (ID Nos. CD-9A and CD-9B)**

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

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| particulate matter | $E = 4.10 P^{0.67}$<br>where:<br>E = allowable particulate emission rate in pounds per hour<br>P = process weight rate in tons per hour | 15A NCAC 02D .0515 |
| visible emissions | 20 percent opacity (except during startups, shutdowns, and malfunctions) when averaged over a six-minute period except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. | 15A NCAC 02D .0521 |

**1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

a. Emissions of particulate matter from these sources (ID Nos. ES-9A and ES-9B) shall not exceed an allowable emission rate as calculated by the following equations: [15A NCAC 02D .0515(a)]

$E = 4.10 \times P^{0.67}$ 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 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

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

c. Particulate matter emissions from the silos (ID Nos. ES-9A and ES-9B) shall be controlled by the bagfilters (ID Nos. CD-9A and CD-9B). 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 shall include the following:
   i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
   ii. an annual (for each 12 month period following the initial inspection) internal inspection of the bagfilter's structural integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bagfilters are not inspected and maintained.

d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each inspection;
   iii. the results of any maintenance performed on the bagfilters; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

e. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.

f. 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.

**2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

a. Visible emissions from these sources (ID Nos. ES-9A and ES-9B) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521 (d)]

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. To assure compliance, once a month the Permittee shall observe the emission point of these sources (ID Nos. ES-9A and ES-9B) for any visible emissions above normal when these source are operating. The Permittee shall establish "normal" for these sources in the first 30 days following the start-up. 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 the that percent opacity from emission points of the emission sources in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 E.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 02D .0521.

**F. Rail tie grinder (ID No. RTG-1) and associated water spray bars (ID No. CD-10)***

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

| Regulated Pollutant | Limits/Standards | Applicable Regulation |
|---|---|---|
| particulate matter | $E = 4.10 \times P^{0.67}$ for process rates $\leq$ 30 tons per hour, or<br>$E = 55.0 \times P^{0.11} - 40$ for process rates > 30 tons per hour<br><br>Where:<br>E = allowable emission rate in pound per hour<br>P = process weight rate in tons per hour | 15A NCAC 02D .0515 |
| Visible emissions | 20 percent opacity | 15A NCAC 02D .0521 |
| Odor | **State Enforceable Only**<br>Odorous emissions must be controlled | 15A NCAC 02D .1806 |

*The installation/operation of the water spray bars (ID No. CD-10) is optional.

**1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

a. Emissions of particulate matter from this source (ID No. RTG-1) shall not exceed an allowable emission rate as calculated by the following equation

$E = 4.10 \times P^{0.67}$ for process rates $\leq$ 30 tons per hour, or
$E = 55.0 \times P^{0.11} - 40$ for process rates > 30 tons per hour

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

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

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

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

c. The Permittee shall maintain records for this source (ID No. RTG-1) such that the process rates "P" in tons per hour, as specified by the formulas contained above can be derived, and shall make these records available to a DAQ authorized representative upon request.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the production records are not maintained.

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

d. No reporting is required for particulate matter emissions from this source.

**2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**

a. Visible emissions from this source (ID No. RTG-1) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent opacity not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. To assure compliance, once a month the Permittee shall observe this source (ID No. RTG-1) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. The Permittee shall establish normal for this source in the first 30 days of operation. If visible emissions from this source are observed to be above normal, the Permittee shall:
   i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   ii. demonstrate that the percent opacity from the emission points of the emission source (ID No. RTG-1) in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 F.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 02D .0521.

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

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

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

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

**STATE-ONLY REQUIREMENT:**

**3. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS**

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

## 2.2 - Clean Air Interstate Rule (CAIR) Permit Requirements

**ORIS code: 10378**

**The following sources are affected CAIR units:**

| CAIR ID No. |
|---|
| ES-1-1A |
| ES-1-1B |
| ES-1-1C |
| ES-2-1A |
| ES-2-1B |
| ES-2-1C |

### A. 15A NCAC 02D .2403: NITROGEN OXIDE EMISSIONS

1. The total nitrogen oxide (NOx) emissions from the affected CAIR units listed above at the CPI USA North Carolina – Southport Plant shall not exceed, except as provided in 15A NCAC 02D .2408: [15A NCAC 02D .2403]
   a. 401 tons annually for 2009-2014
   b. 341 tons annually for 2015 and later

   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 02D .2403, the CAIR designated representative may submit a request to be allocated CAIR NOx allowances for those sources using the procedures in 40 CFR 96.142(c)(2) and (3).
2. The affected CAIR NOx sources shall comply with the requirements of 15A NCAC 02D .2400 using the trading program and banking set out in 40 CFR Part 96. [15A NCAC 02D .2408]
3. The owner or operator of any unit or source covered under 15A NCAC 02D .2403 shall be subject to the provisions of 40 CFR 96.106(f). [15A NCAC 02D .2403]

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02D .2403 and 15A NCAC 02D .2407(a)(1)]

4. The Permittee shall comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR 96.106(b) and (e), and 40 CFR 96 Subpart HH for each CAIR NOx unit.
5. The emissions of nitrogen oxides of a CAIR NOx source shall not exceed the number of allowances that it has in its compliance account established and administered under 15A NCAC 02D .2408.
6. The emissions measurements recorded and reported according to 40 CFR Part 96 Subpart HH shall be used to determine compliance by each CAIR NOx source with its emissions limitation according to 40 CFR 96.106(c) including 96.106(c)(5) and (6).
7. The provisions of 40 CFR 96.106(d) shall be used for excess emissions.

### B. 15A NCAC 02D .2405: NITROGEN OXIDE EMISSIONS DURING OZONE SEASON

1. Ozone season NOx emissions from the affected CAIR units listed above at the CPI USA North Carolina – Southport Plant shall not exceed, except as provided in 15A NCAC 02D .2408: [15A NCAC 02D .2405(a)(1) and (b)]
   a. 213 tons during the ozone season for 2009-2014; and
   b. 181 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 02D .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).

2. The affected CAIR NOx Ozone Season sources shall comply with the requirements of 15A NCAC 02D .2400 using the trading program and banking set out in 40 CFR Part 96. [15A NCAC 02D .2408]
3. The owner or operator of any unit or source covered under 15A NCAC 02D .2405 shall be subject to the provisions of 40 CFR 96.306(f). [15A NCAC 02D .2405]

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02D .2405 and 15A NCAC 02D .2407(a)(3)]

4. 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.
5. 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 02D .2408.
6. 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).
7. The provisions of 40 CFR 96.306(d) shall be used for excess emissions.

**C. 15A NCAC 02D .2404: SULFUR DIOXIDE EMISSIONS**

1. The annual allocation of sulfur dioxide allowances shall be determined by EPA. The allocations for CAIR $SO_2$ units are listed in the table below (these allocations are from 40 CFR 73.10 except where none is given):

| CAIR ID No. | ALLOCATION FOR 2010 AND LATER |
|---|---|
| ES-1-1A | none |
| ES-1-1B | none |
| ES-1-1C | none |
| ES-2-1A | none |
| ES-2-1B | none |
| ES-2-1C | none |

2. The affected CAIR $SO_2$ sources shall comply with the requirements of 15A NCAC 02D .2400 using the trading program and banking set out in 40 CFR Part 96. [15A NCAC 02D .2408]
3. The owner or operator of any unit or source covered under 15A NCAC 02D .2404 shall be subject to the provisions of 40 CFR 96.206(f). [15A NCAC 02D .2404]

**Monitoring/Recordkeeping/Reporting** [15A NCAC 02D .2404 and 15A NCAC 02D .2407(a)(2)]

4. The Permittee shall comply with the monitoring, recordkeeping, and reporting requirements in 40 CFR 96.206(b) and (e), and 40 CFR 96 Subpart HHH for each CAIR $SO_2$ unit.
5. The emissions of sulfur dioxides of each CAIR $SO_2$ source shall not exceed the number of allowances that it has in its compliance account established and administered under Rule 15A NCAC 02D .2408.
6. The emissions measurements recorded and reported according to 40 CFR Part 96 Subpart HHH shall be used to determine compliance by each CAIR $SO_2$ source with its emissions limitation according to 40 CFR 96.206(c) including 96.206(c)(5) and (6).
7. The provisions of 40 CFR 96.206(d) shall be used for excess emissions.

**D. CAIR Permit Application**

The permit application submitted for this facility, as approved by the Department of Environmental Quality, Division of Air Quality, is part of this permit. The owner and operator of these CAIR NOx and $SO_2$ sources must comply with the standard requirements and special provisions set forth in the following attached application: CAIR Permit Application dated April 26, 2011.

# SECTION 3 - GENERAL CONDITIONS (version 4.0 12/17/15)

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

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
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 02Q .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 Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .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 02Q .0507(e) and 02Q .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 02Q .0508(i)(3)]
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 02Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .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 02Q .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 02Q .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 02Q .0523(c)]
   To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A **Reporting Requirements for Excess Emissions and Permit Deviations** [15A NCAC 02D .0535(f) and 02Q .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 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. *(Note: Definitions of excess emissions under 02D .1110 and 02D .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 02D .0524), NESHAPS (15A NCAC 02D .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 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
   a. Pursuant to 15A NCAC 02D .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 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .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 02D .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 02D .0535**

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .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 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .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 02Q .0508(e) and 02Q .0513(b)]
This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .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 02Q .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 02Q .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 02Q .0508(f) and 02Q .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 02Q .0508(n)]
The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, 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 02Q .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 02Q .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 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .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 02Q .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 02Q .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 02Q .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 02Q .0508(i)(10)]
1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. 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 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]
The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .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 02Q .0107 and 02Q. 0508(i)(9)]
Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .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 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .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 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]
The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(4)]
The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .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 02Q .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 02Q .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 02D .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 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]
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 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .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 02D .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 02Q .0508(i)(16)]
Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
    a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
        i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
        ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
        iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
    b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. **Reopening for Cause** [15A NCAC 02Q .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 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .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 02Q .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 02Q .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 02D .0540] - STATE ENFORCEABLE ONLY

As required by 15A NCAC 02D .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 02D .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 02Q.0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .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 02Q .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 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
   a. a description of the change at the facility;
   b. the date on which the change will occur;
   c. any change in emissions; and
   d. any permit term or condition that is no longer applicable as a result of the change.

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

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]
For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

**ATTACHMENT**
**List of Acronyms**

| | |
|---|---|
| **AOS** | Alternate Operating Scenario |
| **BACT** | Best Available Control Technology |
| **Btu** | British thermal unit |
| **CAA** | Clean Air Act |
| **CAIR** | Clean Air Interstate Rule |
| **CEM** | Continuous Emission Monitor |
| **CFR** | Code of Federal Regulations |
| **DAQ** | Division of Air Quality |
| **DEQ** | Department of Environmental Quality |
| **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 |
| **NESHAP** | 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 |