

## AMENDMENT TO AIR QUALITY PERMIT

**Permit Amendment No.**  
**4911-099-0033-P-01-1**

**Effective Date of Amendment**

In accordance with The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Rules, Chapter 391-3-1, adopted pursuant to or in effect under that Act, Permit No. 4911-099-0033-P-01-0 issued on May 14, 2007 to:

**Facility Name:** Longleaf Energy Associates, LLC

**Mailing Address:** Two Tower Center, 11<sup>th</sup> Floor  
East Brunswick, New Jersey 08816

**Facility Location:** State Highway 370  
Hilton, Georgia 31723 (Early County)

for the following: To construct and operate a nominal 1,200 MW coal fired generating station.

is hereby amended as follows: Added Case-by-Case MACT limitations and Amend the commencement of construction deadline date and the completion of construction deadline.

Reason for Amendment: Application No. 18499, dated October 7, 2008, updated October 15, 2008 and December 3, 2008

This Permit is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached **6** page(s).

This Permit Amendment is effective from the date first above written and is hereby made a part of Permit No. 4911-099-0033-P-01-0 and compliance herewith is hereby ordered. Except as amended hereby, the above referenced Permit remains in full force and effect.

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Director  
Environmental Protection Division

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**1.0 General Requirements**

1.7 Deleted.

1.13 The Permittee shall comply with all applicable provisions of the National Emission Standard for Hazardous Air Pollutants (NESHAP) as found in 40 CFR Part 63, in Subpart B – “Requirements for Control Technology Determinations for Major Sources in Accordance With Clean Air Act Sections, Sections 112(g) and 112(j)”.  
[40 CFR 63, Subpart B]

**2.0 Allowable Emissions**

**Note:** Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

2.1 Approval to construct shall become invalid if construction is not commenced by January 21, 2011, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Division may extend the deadline upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within 18 months of the projected and approved commencement date. For purposes of this Permit, the definition of “commence” is given in 40 CFR 52.21(b)(9).  
[40 CFR 52.21(r)(2)]

2.2 The Permittee shall meet the following:

a. The construction of Emergency Generator S42, Diesel Fire-water pump S43, Coal handling particulate sources (Emission Unit IDs S06 – S18), Ash management particulate sources (Emission Unit IDs S19 – S31), Lime management particulate sources (Emission Unit IDs S35 – S37), Cooling Towers (Emission Unit IDs S40 and S41), and Fuel Storage Tanks (Emission Unit IDs S44 – S48) shall be completed no later than December 31, 2015. Approval to construct shall become invalid if construction is not commenced by January 21, 2011, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Division may extend the deadline upon a satisfactory showing that an extension is justified. This provision does not apply to the time period between construction of the approved phases of a phased construction project; each phase must commence construction within 18 months of the projected and approved commencement date.  
[40 CFR 52.21(r)(2)]

b. The Notice of MACT Approval for the PC-Fired Boilers S01 and S02 and Auxiliary Boiler S03 shall expire if construction or reconstruction has not commenced within 18 months of issuance, unless the Division has granted an extension which shall not exceed an additional 12 months.  
[40 CFR 63.43(g)(4)]

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- 2.15 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from each PC-Fired Boiler, S01 and S02, any gases which
- a. Contain nitrogen oxides (NO<sub>x</sub>) in excess of 0.07 lb/MMBtu on a 30-day rolling average.  
[40 CFR 52.21(j); 40 CFR 60.44Da(e)(1) (subsumed)]
  - b. Contain nitrogen oxides (NO<sub>x</sub>) in excess of 0.05 lb/MMBtu on a 12-month rolling average. This condition becomes effective 6 months after initial start-up of each PC-Fired boiler, S01 and S02, absent approval by the Division for an extension of this date.  
[40 CFR 52.21(j); 40 CFR 60.44Da(e)(1) (subsumed)]
  - c. Contain carbon monoxide (CO) in excess of 0.10 lb/MMBtu on a 30-day rolling average and 0.30 lb/MMBtu on a 1-hour average.  
[40 CFR 63, Subpart B; 40 CFR 52.21(j) (subsumed)]
  - d. Contain particulate matter (PM) in excess of 0.010 lb/MMBtu for filterable particulate matter (PM) on a 3-hour average and 0.030 lb/MMBtu for total particulate matter on a 3-hour average.  
[40 CFR 63, Subpart B; 40 CFR 52.21(j) (subsumed); 391-3-1-.02(2)(d) (subsumed); 40 CFR 60.42Da(c) (subsumed)]
  - e. Contain sulfur dioxide in excess of 0.065 lb/MMBtu on a 30-day rolling average when the uncontrolled sulfur dioxide emission rate is less than or equal to 1 lb/MMBtu on a 30-day rolling average.  
[40 CFR 52.21(j); 40 CFR 60.43Da(i)(1)(i) (subsumed); 391-3-1-.02(2)(d) (subsumed)]
  - f. Contain sulfur dioxide in excess of 0.08 lb/MMBtu on a 30-day rolling average when the uncontrolled sulfur dioxide emission rate is greater than 1 lb/MMBtu but less than 1.25 lb/MMBtu on a 30-day rolling average.  
[40 CFR 52.21(j); 40 CFR 60.43Da(i)(1)(i) (subsumed); 391-3-1-.02(2)(d) (subsumed)]
  - g. Contain sulfur dioxide in excess of 0.105 lb/MMBtu on a 30-day rolling average when the uncontrolled sulfur dioxide emission rate is greater than 1.25 lb/MMBtu but less than 1.6 lb/MMBtu on a 30-day rolling average.  
[40 CFR 52.21(j); 40 CFR 60.43Da(i)(1)(i) (subsumed); 391-3-1-.02(2)(d) (subsumed)]
  - h. Contain sulfur dioxide in excess of 0.12 lb/MMBtu on a 24-hour average.  
[40 CFR 52.21(j); 40 CFR 60.43Da(i)(1)(i) (subsumed); 391-3-1-.02(2)(d) (subsumed)]
  - i. Contain volatile organic compounds (VOC) in excess of  $3.6 \times 10^{-3}$  lb/MMBtu, as methane, on a 3-hour average.  
[40 CFR 52.21(j)]
  - j. Contain lead (Pb) in excess of  $1.8 \times 10^{-5}$  lb/MMBtu on a 3-hour average.  
[40 CFR 52.21(j)]
  - k. Contain fluorides (as HF) in excess of  $2.0 \times 10^{-4}$  lb/MMBtu on a 3-hour average.  
[40 CFR 63, Subpart B; 40 CFR 52.21(j) (subsumed);]
  - l. Contain sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>) in excess of 0.005 lb/MMBtu on a 3-hour average.  
[40 CFR 52.21(j)]

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- m. Contain mercury (Hg) in excess of  $13 \times 10^{-6}$  lb/MW-hr on an 12-month rolling average while firing PRB coal or  $6 \times 10^{-6}$  lb/MW-hr on an 12-month rolling average while firing CAPP coal, or a computed weighted average based on the proportion of energy output in gross MW output contributed by each coal rank burned during the compliance period and its applicable Hg emissions limit.  
[40 CFR 63, Subpart B; 40 CFR 52.21(j) (subsumed); 40 CFR 60.45Da(a) (subsumed)]
  - n. Contain mercury from clarifier sludge incineration in both PC-Fired Boilers, S01 and S02, in excess of 3.2 kg (7.1 lb) of mercury per 24-hour period.  
[40 CFR 61.52(b)]
  - o. Contain hydrochloric acid (HCl) in excess of  $6 \times 10^{-4}$  lb/MMBtu on a 3-hour average while firing PRB coal or  $2.4 \times 10^{-3}$  lb/MMBtu on a 3-hour average while firing CAPP coal or a computed weighted average based on the proportion of energy output in MMBtu input contributed by each coal rank burned during the compliance period and its applicable HCl emissions limit.  
[40 CFR 63, Subpart B; Georgia Air Toxic Guideline - 391-3-1-.02(2)(a)3 (subsumed)]
  - p. Exhibit greater than 20 percent opacity.  
[40 CFR 52.21(j); and 391-3-1-.02(2)(d) (subsumed); 40 CFR 60.42Da(b) (subsumed)]
- 2.16 The Permittee shall not discharge, or cause the discharge, into the atmosphere, from the Auxiliary Boiler, S03 any gases which
- a. Contain nitrogen oxides (NO<sub>x</sub>) in excess of 0.1 lb/MMBtu.  
[40 CFR 52.21(j)]
  - b. Contain carbon monoxide (CO) in excess of 0.04 lb/MMBtu.  
[40 CFR 52.21(j); 40 CFR 63.7500 (subsumed)]
  - c. Contain particulate matter (PM) in excess of 0.01 lb/MMBtu for filterable particulate matter and 0.023 lb/MMBtu for total particulate matter.  
[40 CFR 63, Subpart B; 40 CFR 52.21(j) (subsumed); 391-3-1-.02(2)(d) (subsumed); 40 CFR 60.43b(h) (subsumed); 40 CFR 63.7500 (subsumed)]
  - d. Contain volatile organic compounds (VOC) in excess of 0.003 lb/MMBtu, as methane.  
[40 CFR 63, Subpart B; 40 CFR 52.21(j) (subsumed)]
  - e. Contain sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>) in excess of  $6 \times 10^{-5}$  lb/MMBtu.  
[40 CFR 52.21(j)]
  - f. Exhibit greater than 10 percent opacity.  
[40 CFR 52.21(j); 40 CFR 63.7500 and 391-3-1-.02(2)(d) (subsumed); 40 CFR 60.43b(f) (subsumed)]
  - g. Contain hydrochloric acid (HCl) in excess of 0.0009 lb/MMBtu.  
[40 CFR 63, Subpart B; 40 CFR 63.7500 (subsumed)]

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**4.0 Performance Testing**

- 4.2 Within 60 days after achieving the maximum production rate on each coal type (PRB and CAPP) at which each PC-fired boiler, S01 and S02, will be operated, but not later than 180 days after the initial startup of each boiler for each coal type, the Permittee shall conduct the following performance tests and furnish to the Division a written report of the results of such performance tests:
- a. Performance tests on each PC-fired boiler, S01 and S02, for volatile organic compounds at base load and at 50 percent load to verify compliance with Condition No. 2.15.i.  
[40 CFR 52.21 and 391-3-1-.02(6)(b)1.(i)]
  - b. Performance tests on each PC-fired boiler, S01 and S02, for particulate emissions (PM) to verify compliance with Condition No. 2.15.d.  
[40 CFR 52.21, 40 CFR 60.13, 40 CFR 60.42a(c) (subsumed), 391-3-1-.02(6)(b)1.(i)]
  - c. Performance tests on each PC-fired boiler, S01 and S02, for lead to verify compliance with Condition No. 2.15.j.  
[40 CFR 52.21 and 391-3-1-.02(6)(b)1.(i)]
  - d. Performance tests on each PC-fired boiler, S01 and S02, for fluoride emissions (as HF) to verify compliance with Condition No. 2.15.k.  
[40 CFR 63, Subpart B, 40 CFR 52.21 and 391-3-1-.02(6)(b)1.(i)]
  - e. Deleted.
  - f. Performance tests on each PC-fired boiler, S01 and S02, for sulfuric acid mist to verify compliance with Condition No. 2.15.l.  
[40 CFR 52.21 and 391-3-1-.02(6)(b)1.(i)]
  - g. Performance tests on each PC-fired boiler, S01 and S02, for hydrochloric acid while firing PRB coal to verify compliance with Condition No. 2.15.o.  
[40 CFR 63, Subpart B, 40 CFR 52.21 and 391-3-1-.02(6)(b)1.(i)]
  - h. Performance tests on each PC-fired boiler, S01 and S02, for hydrochloric acid while firing CAPP coal to verify compliance with Condition No. 2.15.o.  
[40 CFR 63, Subpart B, 40 CFR 52.21 and 391-3-1-.02(6)(b)1.(i)]
  - i. Performance test or sludge sampling on each PC-Fired Boilers, S01 and S02, shall be completed within 90 days of start up for mercury while firing clarifier sludge to very compliance with Condition No. 2.15.n, unless an alternative is approved by EPA. If the facilities emissions exceed 1.6 kg (3.5 lb) per 24-hour period, demonstrated either by stack sampling according to §61.53 or sludge sampling according to §61.54 or another alternative approved by EPA, shall monitor mercury emissions at intervals of at least once per year by use of Method 105, or an alternative approved by EPA.

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**8.0 Notification, Reporting, and Record Keeping**

***Reporting Requirements***

8.25 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition No. 8.24, the following excess emissions, exceedances, and excursions shall be reported: [40 CFR 52.21 and 391-3-1-.02(6)(b)1]

- a. Excess emissions: (means for the purpose of this Condition and Condition No. 8.24, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)

None required to be reported in accordance with Condition No. 8.24.

- b. Exceedances: (means for the purpose of this Condition and Condition No. 8.24, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)

- i. Any 30-day rolling average NO<sub>x</sub> emission rate which exceeds 0.07 lb/MMBtu for each PC-Fired Boiler, S01 and S02,
- ii. Any 12-month rolling average NO<sub>x</sub> emission rate which exceeds 0.05 lb/MMBtu for each PC-Fired Boiler, S01 and S02, this condition becomes effective 6 months after initial start-up of each PC-Fired boiler, S01 and S02, absent approval by the Division for an extension of this date.
- iii. Any 1-hour average CO emission rate which exceeds 0.30 lb/MMBtu for each PC-Fired Boiler, S01 and S02,
- iv. And 30-day rolling average CO emission rate which exceeds 0.10 lb/MMBtu for each PC-Fired Boiler, S01 and S02,
- v. Any 3-hour block average for filterable PM emission rate which exceeds 0.010 lb/MMBtu for each PC-Fired Boiler, S01 and S02,
- vi. Any 24-hour average sulfur dioxide emission rate which exceeds 0.12 lb/MMBtu for each PC-Fired Boiler, S01 and S02,
- vii. Any 30-day rolling average sulfur dioxide emission rate exceeds 0.065 lb/MMBtu when the uncontrolled sulfur dioxide emission rate is less than or equal to 1 lb/MMBtu on a 30-day rolling average for each PC-Fired Boiler, S01 and S02,
- viii. Any 30-day rolling average sulfur dioxide emission rate exceeds 0.08 lb/MMBtu when the uncontrolled sulfur dioxide emission rate is greater than 1 lb/MMBtu but less than 1.25 lb/MMBtu on a 30-day rolling average for each PC-Fired Boiler, S01 and S02,

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- ix. Any 30-day rolling average sulfur dioxide emission rate exceeds 0.105 lb/MMBtu when the uncontrolled sulfur dioxide emission rate is greater than 1.25 lb/MMBtu but less than 1.6 lb/MMBtu on a 30-day rolling average for each PC-Fired Boiler, S01 and S02,
  - x. Any annual average mercury emission rate that exceeds  $13 \times 10^{-6}$  lb/MW-hr while firing PRB coal for each PC-Fired Boiler, S01 and S02,
  - xi. Any annual average mercury emission rate that exceeds  $6 \times 10^{-6}$  lb/MW-hr while firing CAPP coal for each PC-Fired Boiler, S01 and S02,
  - xii. Any 24-hour average mercury emissions rate while firing clarifier sludge that exceeds 7.1 lb.
  - xiii. Any six-minute period during which the average opacity, as measured by a continuous opacity monitoring system for either PC-Fired boiler, S01 and S02, exceeds 20 percent.
  - xiv. Any time fuel fired in any PC-Fired Boiler, S01 and S02, has a sulfur content which exceeds 3.0 percent sulfur, by weight.
  - xv. Any time ultra low sulfur fuel oil combusted for startup in PC-Fired boilers, S01 and S02, in auxiliary boiler, S03, in emergency generator S42 and firewater pump S43 exceeds 0.0015 percent sulfur by weight.
  - xvi. Any twelve consecutive month period during which hours of operation of the auxiliary boiler exceeds 500 hours.
  - xvii. Any twelve consecutive month period during which hours of operation of emergency generator S42 or firewater pump S43 exceed 500 and 150 hours respectively.
  - xviii. Any hour that either PC-Fired boiler, S01 and S02, has a heat input rate that exceeds 6,139 MMBtu/hr.
  - xix. Any calendar day that clarifier sludge combustion in either PC-Fired boiler, S01 and S02, exceeds 1.0 percent of the total heat input rate to the boiler, or 61.4 MMBtu/hr.
- c. Excursions: (means for the purpose of this Condition and Condition No. 8.24, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring).
- i. Any exceedance of the PM emission limit and/or SO<sub>2</sub> limits in Condition 2.15 are an excursion for HF and HCl.