

**IN THE OFFICE OF STATE ADMINISTRATIVE HEARINGS  
STATE OF GEORGIA**

FRIENDS OF THE	)
CHATTAHOOCHEE, INC. and	)
SIERRA CLUB,	)
	)
Petitioners,	)
	)
v.	)
	)
DR. CAROL COUCH, DIRECTOR,	)
ENVIRONMENTAL PROTECTION	)
DIVISION, GEORGIA	)
DEPARTMENT OF NATURAL	)
RESOURCES	)
	)
Respondent.	)

**PETITION FOR HEARING**

**INTRODUCTION**

1.

Petitioners, Friends of the Chattahoochee, Inc. (“FOC”) and Sierra Club, hereinafter, “Petitioners,” challenge the May 14, 2007 issuance of a Prevention of Significant Deterioration (“PSD”) air quality permit (the “Permit”) to Longleaf Energy Associates, LLC (“Longleaf”) by the Director of the Environmental Protection Division (“Director”). A true and correct copy of the Permit is attached hereto as Exhibit A. The Permit authorizes Longleaf to construct and operate a 1,200 megawatt (MW) coal fired electric generating station (hereinafter, “the

plant” or “the facility”). Petitioners oppose the issuance of such Permit because it violates provisions of the Georgia Air Quality Act, O.C.G.A. §§ 12-9-1, *et seq.*, the Georgia Rules for Air Quality Control, Ga. Comp. R. & Regs. r. 391-3-1-.01, *et seq.*, the Georgia State Implementation Plan, 391-3-1-.01, *et seq.* and the federal Clean Air Act, 42 U.S.C. §§ 7401, *et seq.*

### **STATEMENT OF JURISDICTION**

2.

This action is brought pursuant to O.C.G.A. §§ 12-2-2(c)(2) and 12-9-15, and Ga. Comp. R. & Regs. r. 391-1-3-.02(1), authorizing any person who is aggrieved or adversely affected by any order or action of the Director to obtain review of the Director’s order or action. Petitioners hereby petition for a hearing because they have been aggrieved and adversely affected by the Director’s issuance of the Permit to Longleaf.

3.

This Petition is filed within thirty days of the issuance of the Permit by the Environmental Protection Division (“EPD”) on May 14, 2007, as required by O.C.G.A. §§ 12-2-2(c)(2) and 12-9-15(a)(1), and Ga. Comp. R. & Regs. r. 391-1-3-.02(1).

4.

Pursuant to O.C.G.A. § 12-2-2(c)(2)(B), this Petition stays the effectiveness of the Permit.

**PETITIONERS' INTEREST**

5.

Petitioner Sierra Club is a national nonprofit organization with over 750,000 members nationwide. The Georgia chapter has 12,000 members in Georgia, some of whom live, work, and recreate in the vicinity of the proposed power plant and/or in areas that will be impacted by emissions from the plant. The offices of the Georgia Sierra Club are located at 1401 Peachtree Street, Suite 345, Atlanta, Georgia, 30309. The offices of the national Sierra Club are located at 85 2nd Street, Second Floor, San Francisco, California, 94105. Sierra Club brings this action on behalf of itself and its members.

6.

The mission of Sierra Club is to explore, enjoy and protect the wild places of the earth, practice and promote the responsible use of the earth's ecosystems and resources, educate and enlist humanity to protect and restore the quality of the natural and human environment, and use all lawful means to carry out these objectives.

7.

Petitioner Friends of the Chattahoochee (“FOC”) is a nonprofit membership organization committed to the protection of the land and water within the Chattahoochee River Basin. Presently, FOC has approximately 35 members who live, work, and recreate in the vicinity of the proposed power plant. The offices of FOC are located at 20181 SR 39, Blakely, Georgia, 39823. FOC brings this action on behalf of itself and its members.

8.

The mission of FOC is to educate and inform the citizens of Early County and surrounding areas about environmental and conservation issues affecting the community. The purpose of FOC also includes protecting natural resources and public health in Early County and surrounding areas. FOC is authorized to engage in education, advocacy, litigation, and any other activities allowed by law to achieve these goals.

9.

EPD’s decision to issue the Permit to operate and construct the Longleaf power plant, in violation of state and federal law, adversely affects Petitioners’ interests to protect the Georgia environment for the recreational, educational, scientific, aesthetic and other uses by Petitioners’ members. In addition,

Petitioners' members live, work, and recreate in the vicinity of the proposed power plant and will be adversely affected by pollution coming from the plant, pursuant to the Permit. For example, if the Permit is issued, emissions from the plant will result in substantial damage to the air quality in the vicinity of the plant and the water quality in the Chattahoochee River Basin, as well as the wildlife and other natural resources in the vicinity of the plant.

10.

Petitioners' members have family members with respiratory illnesses that will be exacerbated by the pollution coming from the Longleaf facility. Members also raise crops on land near the facility that will be damaged from the pollution coming from the power plant. For members whose livelihood and economic well-being depend upon the success of these crops, this pollution will cause significant economic injury. Air emissions from the facility will also reduce visibility in the area, thus impairing the recreational and aesthetic interests of members of Petitioner organizations. Members of Petitioner organizations also recreate and fish in the waters surrounding the facility. The air pollutants coming from the Longleaf facility will make their way into the water and into the fish, injuring members' recreational interests and causing a danger to their health.

11.

The injuries caused by the Permit will not be redressed except by an order declaring the Permit unlawful.

**FACTUAL BACKGROUND**

12.

Longleaf Energy Associates, LLC is a subsidiary of, and was created by, the LS Power Group to support the development of the Longleaf Energy Facility. The LS Power Group is a privately held energy company based in New Jersey. According to LS Power, they are a “fully integrated development, investment and asset management group of companies focused on the power industry.” While the LS Power Group is in the business of siting, planning, and gaining the appropriate permits to construct power plants, they generally do not operate the plants themselves.

13.

In March, 2007 LS Power Group merged with Dynegy, Inc., based in Houston, Texas. Dynegy describes itself as providing “wholesale power, capacity and ancillary services to utilities, cooperatives, municipalities and other energy companies in 15 states.” As a wholesale provider of electricity, Dynegy does not intend to sell all the power produced at the Longleaf facility solely to Georgia

consumers. Instead, much of this energy will be exported to neighboring states. Thus, while the energy produced by this facility will primarily benefit neighboring states, the pollution associated with the facility will most strongly impact those living in and around the vicinity of the Plant.

14.

Longleaf Energy Associates, LLC submitted an application to EPD on November 22, 2004 (updated on July 12, 2005 and August 15, 2005), to receive a PSD Permit to construct and operate a pulverized coal-fired electric power generation facility at a site to be called Longleaf Energy Station in Early County, Georgia. The final Permit was issued to Longleaf on May 14, 2007.

15.

The facility will consist of two units, each comprised of one pulverized coal-fired (PC) boiler, a multiple shell condensing steam turbine generator, multiple steam surface condensers, and a multiple cell mechanical draft-cooling tower. EPD's Preliminary Determination states that "The Gross Electrical Capacity of the facility will generate 1200 MW. The facility is expected to operate between 25% and 100% of maximum load." Preliminary Determination, at 2. EPD's evaluation of the proposed facility presumes that the facility will not operate above 1200 MW Gross as this is the referenced maximum load.

16.

The facility is designed to burn Powder River Basin (PRB) coal or Central Appalachian Coal (CAPP).

17.

The regulated pollutants that will be emitted in significant quantities from the facility are carbon dioxide (CO<sub>2</sub>), fine particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), volatile organic compounds (VOC), sulfuric acid mist (H<sub>2</sub>SO<sub>4</sub>), fluorides (HF), lead (Pb), and mercury (Hg).

18.

Toxic air pollutants that will be emitted include lead, sulfuric acid, hydrogen chloride, mercury, beryllium, vinyl chloride, and trace amounts of heavy metals.

19.

The Longleaf Energy Station is the first coal-fired power plant to be permitted in Georgia since the 1980's and would be the state's first "merchant" (a plant built by an independent power producer who wholesales the electricity) coal-fired power plant. If built, the Plant would be one of the largest power plants in Georgia.

20.

The Longleaf Energy Station is classified as a major source under federal and state air quality regulations, specifically, PSD regulations, because potential emissions of at least one PSD pollutant exceed 100 tons per year and it is one of the 28 named source categories (Fossil fuel-fired steam electric plant of more than 250 million Btu per hour heat input).

### **BACKGROUND: LEGAL FRAMEWORK**

21.

#### **I. The Clean Air Act**

The Clean Air Act (“Act”) provides a comprehensive framework “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.” 42 U.S.C. § 7401(b)(1).

22.

The regulations contained within the Act have often been referred to as a model of cooperative federalism as individual states are given the responsibility of achieving National Ambient Air Quality Standards (“NAAQS”) through State Implementation Plans (“SIPs”) approved by the U.S. Environmental Protection Agency.

23.

The Act regulates air pollution through a series of connected permitting programs. In areas that have satisfied NAAQS, the Act's PSD program requires major sources of air pollution to obtain a permit prior to construction. 42 U.S.C. § 7475.

24.

## **II. State Air Quality Regulations**

The Georgia General Assembly enacted the Georgia Air Quality Act to “preserve, protect, and improve air quality and to control emissions to prevent the significant deterioration of air quality and to attain and maintain ambient air quality standards so as to safeguard the public health, safety, and welfare . . . .” O.C.G.A. § 12-9-2. The Georgia Air Quality Act (“Georgia Act”) and its implementing regulations carry forth the mandates of the federal Clean Air Act and grants the Director of EPD supervisory authority, to administer and enforce air quality regulations. O.C.G.A. §§ 12-9-6, *et seq.*

25.

Among the duties of the Director is the responsibility “[t]o prepare, develop, amend, modify, submit, and enforce a comprehensive plan or plans sufficient to comply with the federal act including emission control and limitation requirements,

standards of performance, preconstruction review, and other requirements for the prevention, abatement, and control of air pollution in this state . . . .” O.C.G.A. § 12-9-6 (b)(13). This plan, known as the State Implementation Plan, is required under the federal Clean Air Act and must be approved by the U.S. Environmental Protection Agency (“EPA”). 42 U.S.C. § 7410. The portion of Georgia’s State Implementation Plan (“SIP”) implementing the Prevention of Significant Deterioration program was first approved by the EPA on September 18, 1979, and it has been revised five times since then. See Georgia SIP, 391-3-1-.02(7) and 44 Fed. Reg. 54047 (Sept. 18, 1979), 47 Fed. Reg. 6017 (Feb. 10, 1982), 57 Fed. Reg. 24371 (June 9, 1992), 57 Fed. Reg. 58989 (Dec. 14, 1992), 1996 61 Fed. Reg. 3817 (Feb. 2, 1994), and 64 Fed. Reg. 67491 (Dec. 2, 1999), see also Georgia SIP, 391-3-1-.03(1).

26.

Pursuant to the Georgia SIP, “[n]o person shall construct or operate any facility from which air contaminants are or may be emitted in such a manner as to fail to comply with . . . [a]ny applicable increment, precondition for permit, or other requirement established for the Prevention of Significant Deterioration pursuant to Part C, Title I of the Federal Act.” Georgia SIP, 391-3-1-.02 (1)(c).

27.

The type of permit required depends upon a myriad of factors. A new major stationary source in an area of the state that, at the time of permitting, is in compliance with the federal ambient air quality standards must receive a PSD Permit from the director before construction on the facility begins. Ga. Comp. R. & Regs. r. 391-3-1-.02 (7); 40 C.F.R. § 52.21; 42 U.S.C. § 7475. Because the Longleaf Energy Station will be a major source located in an area presently in attainment of the National Ambient Air Quality Standards it is subject to PSD regulations. Preliminary Determination, at 5.

28.

### **III. Prevention of Significant Deterioration**

The requirements for a PSD Permit are found in the Georgia SIP, which incorporates, by reference, the federal PSD regulations. Georgia SIP, 391-3-1-.02 (7), 40 C.F.R. § 52.21. The PSD requirements call for every new major source to be reviewed to determine the potential emissions of all pollutants regulated under the Clean Air Act. The PSD review requirements apply for any new or modified source which belongs to one of 28 specific source categories having potential emissions of 100 tons per year or more of any regulated pollutant, or all other sources having potential emissions of 250 tons per year or more of any regulated

pollutant; or a modification of a major stationary source that would itself qualify as a major stationary source. Georgia SIP, 391-3-1-.02 (7)(a)(1), 40 C.F.R. § 52.21(b)(1)(i)(a) – (c).

29.

To assist regulators in the issuance of PSD Permits, the EPA produced the *Draft New Source Review Workshop Manual* (October 1990) (“NSR Manual”), which has become the primary guidance document for PSD permitting. The NSR Manual provides that in order to obtain a PSD Permit, an applicant must:

1. apply the best available control technology (BACT);
2. conduct an ambient air quality analysis;
3. analyze impacts to soils, vegetation, and visibility;
4. not adversely impact a Class I area; and
5. undergo adequate public participation.

NSR Manual, at 6-7.

30.

The Georgia SIP incorporates 40 C.F.R § 52.21(j) by reference. Georgia SIP, 391-3-1-.02 (7)(b)(6). Section 52.21(j)(2) provides that: “A new major stationary source shall apply best available control technology for each regulated NSR pollutant that it would have the potential to emit in significant amounts.”

31.

The definition of best available control technology (BACT), found at 40 C.F.R. § 52.21(b)(12), is incorporated by reference into the Georgia SIP. Georgia SIP, 391-3-1-.02 (7)(a)(2).

**LEGAL AND FACTUAL ISSUES PRESENTED**

**Count I - The Permit Is Invalid Because It Fails To Contain a BACT Emission Limitation for CO<sub>2</sub>**

32.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

33.

If constructed, the Longleaf Energy Station would be a new “major stationary source.” 40 C.F.R. § 52.21(b)(1).

34.

Each new major stationary source must have a BACT emission limitation for each regulated NSR pollutant that it would have the potential to emit in significant amounts. 40 C.F.R. § 52.21(j)(2).

35.

CO<sub>2</sub> is a regulated NSR pollutant. 40 C.F.R. § 52.21(b)(50).

36.

The Longleaf Energy Station will emit CO<sub>2</sub> in a significant amount. 40  
C.F.R. § 52.21(b)(23)(ii).

37.

The Permit is invalid because EPD failed to include in the Permit a BACT  
emission limitation for CO<sub>2</sub>.

38.

In order to make the Permit valid, EPD would have to include a BACT  
emission limit that would control CO<sub>2</sub> so that the facility was prohibited from  
emitting more than 6,220,000 tons in any 12 month period.

**Count II - The Permit Is Invalid Because the Emission Limitation  
for SO<sub>2</sub> is Not Reflective of BACT  
(Failure to Consider All Available Control Options)**

39.

All preceding paragraphs of this Petition are hereby incorporated by  
reference as if rewritten in their entirety.

40.

The Permit limits SO<sub>2</sub> emissions to 0.065 lb/MMBtu on a 30-day rolling  
average when the uncontrolled SO<sub>2</sub> emission rate is less than or equal to 1  
lb/MMBtu on a 30-day rolling average. PSD Permit, Condition 2.15(e).

41.

The Permit limits SO<sub>2</sub> emissions to 0.08 lb/MMBtu on a 30-day rolling average when the uncontrolled SO<sub>2</sub> emission rate is greater than 1 lb/MMBtu but less than 1.25 lb/MMBtu on a 30-day rolling average. PSD Permit, Condition 2.15(f).

42.

The Permit limits SO<sub>2</sub> emissions to 0.105 lb/MMBtu on a 30-day rolling average when the uncontrolled SO<sub>2</sub> emission rate is greater than 1.25 lb/MMBtu but less than 1.6 lb/MMBtu on a 30-day rolling average. PSD Permit, Condition 2.15(g).

43.

The Permit limits SO<sub>2</sub> emissions to 0.12 lb/MMBtu on a 24-hour average. PSD Permit, Condition 2.15(h).

44.

In setting the emission limitations for SO<sub>2</sub>, EPD erred by failing to consider all available production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of SO<sub>2</sub>. The alternatives EPD failed to consider include but are not limited to Integrated Gasification Combined Cycle (IGCC) technology.

40 C.F.R. § 52.21(b)(12).

45.

Had EPD properly considered all available production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of SO<sub>2</sub>, it would have imposed a more restrictive emission limitation for this pollutant. The appropriate limitation for SO<sub>2</sub> should be 0.02 lb/mmBtu on a 30-day rolling average, or lower. The Permit should also contain an emission limitation of 0.16 lb SO<sub>2</sub>/NetMWhr (or lower) on a 30-day rolling average. The Permit should also contain a control efficiency requirement of 99% removal.

46.

Because the Permit does not contain a more restrictive emission limitation for SO<sub>2</sub>, as discussed above, the Permit is invalid.

**Count III - The Permit Is Invalid Because the Emission Limitation for SO<sub>2</sub> is Not Reflective of BACT (Errors in the Collateral Impacts Analysis)**

47.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

48.

Even if the decision maker in this case finds that EPD, contrary to Count II, properly considered all available control options, the emission limitations for SO<sub>2</sub> in the Permit, Conditions 2.15 (e) – (h), still are not reflective of BACT because EPD erred in its collateral impacts analysis.

49.

EPD's errors in conducting its collateral impact analysis include, but are not limited to, the failure to analyze cost issues correctly, the failure to focus the adverse environmental impacts associated with all options, and the failure to focus on site-specific differences among various control options.

50.

Had EPD's collateral impacts analysis been correct, EPD would have imposed a more restrictive emission limitation for SO<sub>2</sub>. The appropriate limitation for SO<sub>2</sub> should be 0.02 lb/mmBtu on a 30-day rolling average, or lower. The Permit should also contain an emission limitation of 0.16 lb SO<sub>2</sub>/NetMWhr (or lower) on a 30-day rolling average. The Permit should also contain a control efficiency requirement of 99% removal.

51.

Because the Permit does not contain a more restrictive emission limitation

for SO<sub>2</sub>, as discussed above, the Permit is invalid.

**Count IV - The Permit Is Invalid Because the Emission Limitation  
for SO<sub>2</sub> is Not Reflective of BACT  
(Failure to Require the Use of Clean Fuels)**

52.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

53.

Even if the decision maker in this case finds that EPD, contrary to Count II, properly considered all available control options, and, contrary to Count III, properly conducted its collateral impacts analysis, the emission limitations for SO<sub>2</sub> in the Permit, Conditions 2.15 (e) – (h), still are not reflective of BACT because EPD erred in not requiring the facility to use “clean fuels,” as required by 42 U.S.C. § 7479(3). Had EPD properly required the use of “clean fuels,” it would have imposed a more restrictive emission limitation for SO<sub>2</sub>. The appropriate limitation for SO<sub>2</sub> should be 0.065 lb/mmBtu on a 30-day rolling average, or lower. The Permit should also contain an emission limitation of 0.53 lb SO<sub>2</sub>/NetMWhr (or lower) on a 30-day rolling average. The Permit should also contain a control efficiency requirement of 93.5% removal.

54.

Because the Permit does not contain a more restrictive emission limitation for SO<sub>2</sub>, as discussed above, the Permit is invalid.

**Count V - The Permit Is Invalid Because the Emission Limitation for NO<sub>x</sub> is Not Reflective of BACT (Failure to Consider All Available Control Options)**

55.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

56.

The Permit limits NO<sub>x</sub> emissions to 0.07 lb/MMBtu on a 30-day rolling average. PSD Permit, Condition 2.15(a).

57.

The Permit limits NO<sub>x</sub> emissions to 0.05 lb/MMBtu on a 12-month rolling average. PSD Permit, Condition 2.15(b).

58.

In setting the emission limitations for NO<sub>x</sub>, EPD erred by failing to consider all available production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of NO<sub>x</sub>. The alternatives EPD failed to consider included, but were not

limited to Integrated Gasification Combined Cycle (IGCC) technology. 40 C.F.R. § 52.21(b)(12).

59.

Had EPD properly considered all available production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of NO<sub>x</sub>, it would have imposed a more restrictive emission limitation for this pollutant. The appropriate limitation for NO<sub>x</sub> should be 0.015 lb/mmBtu on a 30-day rolling average, or lower. The Permit should also contain an emission limitation of 0.12 lb NO<sub>x</sub> /NetMWhr (or lower) on a 30-day rolling average.

60.

Because the Permit does not contain a more restrictive emission limitation for NO<sub>x</sub>, as discussed above, the Permit is invalid.

**Count VI - The Permit Is Invalid Because the Emission Limitation  
for NO<sub>x</sub> is Not Reflective of BACT  
(The Emission Limitation is Not Reflective of the Performance  
of the Technology Selected)**

61.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

62.

Even if EPD was correct that a BACT emission limitation for NO<sub>x</sub> should be set on the basis of Low-NO<sub>x</sub> burners, Overfire Air, and Selective Catalytic Reduction, see Preliminary Determination at 37, EPD erred in establishing the BACT emission limitations for NO<sub>x</sub>, see PSD Permit, Conditions 2.15(a) and (b), because this combination of control technology can produce a lower rate of emission of NO<sub>x</sub>. The appropriate limitation for NO<sub>x</sub> should be 0.015 lb/mmBtu on a 30-day rolling average, or lower. The Permit should also contain an emission limitation of 0.12 lb NO<sub>x</sub> /NetMWhr (or lower) on a 30-day rolling average.

63.

Because the Permit does not contain a more restrictive emission limitation for NO<sub>x</sub>, as discussed above, the Permit is invalid.

**Count VII - The Permit Is Invalid Because the Emission Limitation  
for PM is Not Reflective of BACT  
(Failure to Consider All Available Control Options)**

64.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

65.

The Permit limits PM emissions to 0.012 lb/MMBtu on a 3-hour average.

PSD Permit, Condition 2.15(d).

66.

In setting the emission limitations for PM, EPD erred by failing to consider all available production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of PM. The alternatives EPD failed to consider include, but are not limited to Integrated Gasification Combined Cycle (IGCC) technology. 40 C.F.R. § 52.21(b)(12).

67.

Had EPD properly considered all available production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of PM, it would have imposed a more restrictive emission limitation for this pollutant. The appropriate limitation for PM should be 0.0063 lb/mmBtu on a 3-hour rolling average, or lower. The Permit should also contain an emission limitation of 0.05 lb PM/NetMWhr (or lower) on a 3-hour rolling average.

68.

Because the Permit does not contain a more restrictive emission limitation

for PM, as discussed above, the Permit is invalid.

**Count VIII - The Permit Is Invalid Because the Emission Limitation  
for PM<sub>10</sub> is Not Reflective of BACT  
(Errors in the Collateral Impacts Analysis)**

69.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

70.

The applicable regulations provide that if “technological or economic limitations on the application of measurement methodology to a particular emissions unit would make the imposition of an emissions standard infeasible, a design, equipment, work practice, operational standard, or combination thereof, may be prescribed instead to satisfy the requirement for the application of best available control technology.” 40 C.F.R. § 52.12(b)(12).

71.

The Permit allows construction of cooling towers. See PSD Permit, at 1 and 4, and PSD Permit, Conditions 2.24 and 8.20.

72.

Had EPD’s collateral impacts analysis been correct, it would have required a dry cooling system to be installed, rather than cooling towers. Use of cooling

towers in this case will lead to excessive and unnecessary water usage at the facility without a significant decrease in particulate matter emissions.

73.

The Permit also requires use of a fabric filter baghouse. Had EPD's collateral impacts analysis been correct, it would have required installation of a wet electrostatic precipitator. Wet ESP technology is superior in addressing collateral pollutants such as H<sub>2</sub>SO<sub>4</sub> and HF.

74.

The Permit should require the installation of a dry cooling system and a wet ESP. Because it does not, the Permit is invalid.

**Count IX - The Permit Is Invalid Because the Emission Limitation for H<sub>2</sub>SO<sub>4</sub> is Not Reflective of BACT**

75.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

76.

The Permit limits H<sub>2</sub>SO<sub>4</sub> emissions to 0.005 lb/MMBtu on a 3-hour average. PSD Permit, Condition 2.15(1).

77.

The design basis of the controls for H<sub>2</sub>SO<sub>4</sub> can achieve emission rates of 0.0015 lb/mmBtu on a 3-hour average. Accordingly, EPD erred in not setting the emission limitation at this level.

78.

The Permit should contain an emission limitation of 0.012 lb H<sub>2</sub>SO<sub>4</sub> /NetMWhr (or lower) on a 30-day rolling average.

79.

Because the Permit does not contain a more restrictive emission limitation for H<sub>2</sub>SO<sub>4</sub>, as discussed above, the Permit is invalid.

**Count X - The Permit Is Invalid Because It Does Not Contain a BACT Emission Limitation Expressed as a Visible Emission Limitation**

80.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

81.

Pursuant to 40 C.F.R § 52.21(b)(12), PSD Permits must include BACT emission limitations in the form of a “visible emission standard.”

82.

The Permit should include such a limitation, but does not. See Final Determination, at 69.

83.

Because the Permit does not contain a BACT visible emission standard, the Permit is invalid.

**Count XI - The Permit Is Invalid Because the Applicant Failed to Demonstrate that with Respect to PM<sub>2.5</sub>, Allowable Emissions From Longleaf Energy Station Will Not Cause or Contribute to Air Pollution in Violation of the National Ambient Air Quality Standard or of an Applicable Maximum Allowable Increase over the Baseline Concentration**

84.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

85.

The regulations governing EPD's issuance of PSD Permits prohibit EPD from issuing a PSD Permit unless the applicant has demonstrated that its proposed facility will not cause or contribute to air pollution in violation of a National Ambient Air Quality Standard or of an applicable Maximum Allowable Increase over the Baseline Concentration in any area. Georgia SIP, 391-3-1-.02 (7)(b)(7) (incorporating 40 C.F.R. § 52.21).

86.

The applicant for this Permit did not submit an adequate modeling demonstration that shows, with respect to  $PM_{2.5}$ , that the Longleaf Energy Station will not cause or contribute to air pollution in violation of a National Ambient Air Quality Standard or of an applicable Maximum Allowable Increase over the Baseline Concentration.

87.

The modeling demonstration for  $PM_{2.5}$  submitted by the applicant was insufficient because it cannot adequately predict the ambient air quality impacts on  $PM_{2.5}$  concentrations from the Longleaf Energy Station.

88.

Because the applicant did not submit an adequate modeling demonstration showing that emissions of  $PM_{2.5}$  from the Longleaf Energy Station will not cause or contribute to air pollution in violation of a National Ambient Air Quality Standard or of an applicable Maximum Allowable Increase over the Baseline Concentration, EPD should not have issued the Permit.

**Count XII - The Permit Is Invalid Because the Applicant Failed to Demonstrate that with Respect to SO<sub>2</sub>, Allowable Emissions From Longleaf Energy Station Will Not Cause or Contribute to Air Pollution in Violation of the National Ambient Air Quality Standard or of an Applicable Maximum Allowable Increase over the Baseline Concentration**

89.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

90.

The applicant for this Permit did not submit an adequate modeling demonstration that shows, with respect to SO<sub>2</sub>, that the Longleaf Energy Station will not cause or contribute to air pollution in violation of a National Ambient Air Quality Standard or of an applicable Maximum Allowable Increase over the Baseline Concentration.

91.

The modeling demonstration for SO<sub>2</sub> submitted by the applicant was inadequate because the emission rate used to model SO<sub>2</sub> is not reflective of the maximum 3-hour rate of emissions for SO<sub>2</sub> under the conditions of the Permit.

92.

The modeling demonstration for SO<sub>2</sub> submitted by the applicant was also inadequate because it did not contain an analysis of cavity or wake effects. 40

C.F.R. Part 51, Appendix W required this analysis, particularly because the stack height for the Longleaf Energy Station will be below Good Engineering Practice height of 212 m. Accordingly, the applicant may have underestimated the air quality impacts from this project by as much as 200%.

93.

The modeling demonstration for SO<sub>2</sub> submitted by the applicant was also inadequate because it used inappropriate meteorological data.

94.

Because the applicant did not submit an adequate modeling demonstration showing that emissions of SO<sub>2</sub> from the Longleaf Energy Station will not cause or contribute to air pollution in violation of a National Ambient Air Quality Standard or of an applicable Maximum Allowable Increase over the Baseline Concentration, EPD should not have issued the Permit.

**Count XIII - The Permit Is Invalid Because it Does Not Contain Adequate Safeguards to Protect the Public Health, Safety and Welfare of the People of the State of Georgia.**

95.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

96.

Rule 391-3-1-.02(2)(a)(3)(ii) of the Georgia Rules for Air Quality Control provides that the Director may impose additional emission limitations to safeguard the public health, safety and welfare of the people of the State of Georgia.

97.

To implement this provision, EPD requires applicants for PSD Permits to assess the impacts from emissions of hazardous air pollutants. See Georgia Guideline for Ambient Impact Assessment of Toxic Air Pollutant Emissions (the “Guideline”).

98.

The assessment by the applicant was flawed because it discounted the health risks from non-inhalation pathways for multipathway pollutants such as arsenic and mercury.

99.

Proper analysis of the risks from multipathway pollutants shows that emissions from the Longleaf Energy Station exceed the threshold value of 1.

100.

Given the risks associated with the emission of multipathway pollutants from the planned Longleaf Energy Station, EPD should not have issued the Permit

without imposing emission limitations to impose an adequate margin of safety from these pollutants. Until EPD includes these limits, the Permit should not be issued.

**Count XIV - The Permit Is Invalid Because the Applicant Has Not Demonstrated that the Facility Will Not Have an Adverse Impact on Visibility in a Class I Area**

101.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

102.

Georgia SIP 391-3-1-.02(2)(uu)(7) provides that “[p]rior to the issuance of any permit, the Director shall ensure that the source's emissions will be consistent with making reasonable progress towards the national visibility goal of preventing any future, and remedying any existing, impairment of visibility in mandatory Class I areas which impairment results from manmade air pollution.”

103.

EPD’s issuance of this Permit violated this requirement because EPD has not ensured that the facility’s emissions will be consistent with making reasonable progress towards the national visibility goal of preventing any future, and remedying any existing, impairment of visibility at the St. Marks Wilderness Area

and other Class I areas.

104.

EPD has violated this requirement because it relied upon CALPUFF modeling that used outdated and inappropriate meteorological data.

105.

EPD also violated this requirement because it relied on modeling that did not include facility emissions from points other than the main boilers.

106.

EPD also violated this requirement because it relied on modeling that made inappropriate modifications to the FLAG procedure. EPD should have used the FLAG screening Level I procedure. This screening procedure shows that the facility will cause significant impacts on regional haze at the St. Marks Wilderness Area.

107.

EPD also violated this requirement because it failed to take into account cumulative visibility impacts at the St. Marks Wilderness Area.

108.

Because of the errors laid out in this count, EPD has violated Georgia SIP Rule 391-3-1-.02(2)(uu) because it did not, prior to issuing this Permit, ensure that

the emissions from the Longleaf Energy Station will be consistent with making reasonable progress towards the national visibility goal of preventing any future, and remedying any existing, impairment of visibility in mandatory Class I areas, particularly the St. Marks Wilderness Area, which impairment results from manmade air pollution. Consequently, the Permit is invalid.

**Count XV - The Permit Is Invalid Because It Fails to Require Continuous Compliance With Emission Limitations**

109.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

110.

The Permit is invalid because Condition 8.23 of the Permit violates 42 U.S.C. § 7602(k) and Georgia SIP Rule 391-3-1-.01(v). These provisions require emission limitations and emission standards to provide for the control of air pollution on a “continuous basis,” yet Condition 8.23 creates an exemption during startup and shutdown.

**Count XVI - The Permit Is Invalid Because the Additional Impacts Analysis was Inadequate**

111.

All preceding paragraphs of this Petition are hereby incorporated by

reference as if rewritten in their entirety.

112.

Georgia SIP Rule 391-3-1-.02(7) (b)(11) requires applicants to provide an analysis of the impairment to visibility, soils, and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial and other growth associated with the source.

113.

Because of the inadequacy of the additional impacts analysis provided by the applicant, EPD erred in issuing the Permit.

**Count XVII - The Permit Is Invalid Because It Contains Provisions that Are Not Adequately Enforceable**

114.

All preceding paragraphs of this Petition are hereby incorporated by reference as if rewritten in their entirety.

115.

Conditions set forth in the Permit must be practically and adequately enforceable. The Permit is invalid because it contains conditions that fail to comply with this standard.

116.

The standard governing fugitive dust, Condition 2.21 of the Permit (“The Permittee shall take all reasonable precautions to prevent fugitive dust from becoming airborne”) is impermissibly vague. Neither the applicant nor the regulator would be able to determine what conduct is or is not permissible from this language. The Permit must be changed to include language that is practically and adequately enforceable.

117.

PSD Permit Condition 2.17 (“The Permittee shall limit each PC-Fired boiler, S01 and S02, to a maximum design heat input of 6,139 MMBtu/hr on a one-hour average”) contains an impermissibly vague term: “design.” The way this Condition is formulated, the owner or operator of the facility could exceed the heat input limit. The Condition should be changed to: “maximum hourly heat input is limited to 6139 MMBtu/hr.”

118.

Conditions 2.15(k) and (o) of the Permit contain limitations for HF and HCl based on coal type, but the Permit is defective because it fails to specify how compliance with these conditions is to be determined. The Permit must specify how compliance with the limitations for HF and HCl be determined.

119.

Because the Permit contains conditions with these enforceability flaws, it is invalid.

WHEREFORE, Petitioners request:

1. A hearing before an administrative law judge on the issues set forth in the Petition for Hearing;
2. A declaration that the Permit is unlawful for the reasons set forth in the Petition for Hearing;
3. An order invalidating the Permit; and
4. Any other relief to which Petitioners are entitled.

Respectfully submitted, this 13<sup>th</sup> day of June, 2007.

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Justine Thompson  
Georgia Bar Number 708706

George Hays  
Georgia Bar Number 252530

Pamela Orenstein  
Georgia Bar Number 602507

Georgia Center for Law in the Public Interest  
175 Trinity Avenue, SW  
Atlanta, Georgia 30303

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the “Petition for Hearing”  
submitted by Sierra Club and Friends of the Chattahoochee by sending the same by  
hand delivery to:

Dr. Carol Couch, Director  
Environmental Protection Division  
Georgia Department of Natural Resources  
c/o Commissioner of Natural Resources  
2 Martin Luther King Jr. Drive, SE  
Suite 1252 East Tower  
Atlanta, GA 30334

The Honorable Thurbert E. Baker  
Attorney General  
40 Capitol Square, S.W.  
Atlanta, GA 30334-1300

and by certified mail, return receipt requested, upon:

Longleaf Energy Associates, LLC  
C/o LS Power Development, LLC  
Two Tower Center, 11th Floor  
East Brunswick, New Jersey 08816

Longleaf Energy Associates, LLC  
The Corporation Trust Company  
Corporation Trust Center  
1209 Orange St.  
Wilmington, Delaware 19801

This 13<sup>th</sup> day of June, 2007.

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Justine Thompson