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March 26, 2010

Mr. Jim Ussery  
Assistant Director  
Georgia Environmental Protection Division  
2 Martin Luther King Jr. Drive, Suite 1152 East Tower  
Atlanta, Georgia 30334

**RE: Application No. 17924, dated January 17, 2008  
Draft Permit No. 4911-303-0051-P-01-0  
Plant Washington  
Sandersville, Georgia**

Dear Mr. Ussery:

On behalf of our client, Power4Georgians, LLC (P4G), attached please find the final written submissions from P4G responding to public comments received as well as your staff's inquiries regarding the above-referenced Prevention of Signification Deterioration (PSD) permit. If you have any questions, please contact me at (770) 421-3335 or Leonard Ledbetter at (770) 421-3569.

Sincerely,  
**MACTEC ENGINEERING AND CONSULTING, INC.**

A handwritten signature in black ink that reads "J. Leonard Ledbetter".

J. Leonard Ledbetter  
Executive Vice President

A handwritten signature in black ink that reads "Justin D. Fickas".

Justin D. Fickas  
Senior Engineer

Enclosures

cc: Mr. Jac Capp  
Mr. C. Dean Alford

### *Assessment of Miscellaneous GreenLaw Comments*

*Comment:* The BACT analysis fails to set limits for each type of coal. (Section I.B, page 3).

*Response:* The Commenters' critique of EPD's and the Applicant's handling of different coal types overlooks those components of the draft permit that do, in fact, account for different coal types. For example, as the Applicant described in the application, the sulfur content of the coal burned at Plant Washington is expected to vary significantly with coal type. Specifically, Illinois # 6 coal is expected to have a higher sulfur content than PRB coal. The draft permit effectively accounts for this variation by including a minimum removal efficiency (97.5%) along with numerical limits for 3-hour, 30-day, and 12-month averaging times. The minimum percent removal ensures effective control of SO<sub>2</sub> during use of low sulfur coals. Chlorine content is also expected to vary significantly depending on the coal type burned at Plant Washington. For this reason, the draft permit contains separate emission limits for HCl: one while burning PRB; and a separate limit while burning a 50/50 blend of PRB and Illinois # 6 coals. The Applicant considered separate limits for other pollutants, including mercury, but a review of the available data indicates that the blending of fuels did not improve expected removal efficiencies. Accordingly, for mercury and other pollutants (e.g., HF) for which no discernible difference in emission rates exists depending on fuel type, multiple BACT limits for each coal type were determined to be unnecessary.

*Comment:* The permit contains no additional engineering design or other description of the coal unit itself, its operating conditions (i.e., steam conditions) or any engineering design or capacity descriptions of the various air pollution controls. These should be provided. (Section I.C., page 4).

*Response:* At various points throughout the comment letter, Commenters attempt to fault the Applicant and/or the EPD for failing to furnish sufficient details concerning the design of Plant Washington. The Applicant has provided the greatest level of detail that is possible at this stage of the development process, considering that engineering, procurement, and construction contracts have not -- and cannot -- be entered into until the Applicant has obtained a permit from the EPD. Once EPD sets the performance requirements for the facility, the Applicant will be able to go to the market and select the best available equipment for achieving those performance requirements. To require any more detail at this stage of the process would handicap the Applicant's ability to negotiate with vendors. Perhaps more importantly, however, is the fact that requiring greater design specificity at this stage of the development process would prevent the Applicant from purchasing the best available equipment that is available at the time such purchase takes place. Take, for example, the filter bags that will be utilized in the baghouse. As discussed in more detail elsewhere in these comments, the Applicant and the EPD have conducted a thorough review of the filter bag alternatives that are currently available. Filter bag design continues to evolve and the Applicant anticipates that when the time comes to specify filter bags for the facility, there is likely to be new designs on the market. If, as the Commenters suggest, the permit were to specify a particular filter bag design, the Applicant could be precluded from purchasing a higher performing, more durable bag in the future. For these reasons, the Commenters' criticisms of the level of detail provided in the application and draft permit are not well-founded.

*Comment:* This permit is defective because it contains no BACT emission limits for CO<sub>2</sub>. (Section I.I, pages 33-35).

*Response:* As the Commenters well know, the issue of whether carbon dioxide (CO<sub>2</sub>) must be included within the BACT analysis for a new pulverized coal-fired power plant was resolved by the Georgia Court of Appeals in *Longleaf Energy Associates, LLC v. Friends of the Chattahoochee, Inc.* In that decision, the Court unequivocally held that EPD is not required to include BACT limits for CO<sub>2</sub> in a PSD permit for a facility like Plant Washington. Commenters now suggest that a July 8, 2009 waiver issued by EPA to the State of California to allow that State to develop greenhouse gas emission restrictions for new motor vehicles has somehow undermined the Georgia Court of Appeals' decision on this matter. That is simply not the case. EPA's definitive interpretation of pollutants covered by the PSD program, a December 18, 2008 memorandum issued by then-Administrator Stephen Johnson which was relied upon by the Georgia Court of Appeals in the *Longleaf* case, provides that the regulation of a pollutant by a single state in a State Implementation Plan (SIP) approved by EPA does not render that same pollutant "subject to regulation" for purposes of the PSD regulations. Accordingly, what California may decide to do to regulate greenhouse gas emissions from new motor vehicles does not affect the scope of PSD permitting in Georgia.

*Comment:* The Application must be submitted and reviewed by a professional engineer licensed in Georgia. (Section IV, pages 125-26).

*Response:* There is no requirement in Georgia that a PSD permit application must be submitted and reviewed by a professional engineer licensed in Georgia. In any event, as the application clearly demonstrates, numerous professional engineers licensed to practice in Georgia prepared the Plant Washington permit applications.

**Power4Georgians' Assessment of the  
New 1-hr NO<sub>2</sub> NAAQS Standard in Relation to Plant Washington**

Power4Georgians submits the following assessment regarding the impact of Plant Washington on the new 1-hr NO<sub>2</sub> National Ambient Air Quality Standard (NAAQS) recently promulgated by the United States Environmental Protection Agency (EPA). EPA's Final Rule regarding the new 1-hr NO<sub>2</sub> standard was published in the Federal Register on February 9, 2010; it will become effective on April 12, 2010. *See* 75 Fed. Reg. 6474 (Feb. 9, 2010). Because the Final Rule is not yet effective and has not been incorporated into Georgia's State Implementation Plan, it does not currently create any new permitting requirements for Plant Washington. Nevertheless, Power4Georgians submits this assessment to demonstrate that even if the new NO<sub>2</sub> NAAQS was in effect prior to the issuance of Plant Washington's permit, the facility's emissions are not expected to cause or contribute to a violation of the new standard.

A. Background on the New NO<sub>2</sub> NAAQS

EPA has established a new 1-hr NO<sub>2</sub> NAAQS at a level of 100 parts per billion (ppb). This rulemaking will not affect the current annual NO<sub>2</sub> NAAQS of 53 ppb. The new 1-hr standard has been developed to protect public health by limiting exposure to short-term peak concentrations of NO<sub>2</sub> which primarily occur near major roads in urban areas, and by limiting community-wide NO<sub>2</sub> concentrations to below those levels that have been linked to respiratory-related emergency department visits and hospital admissions in the United States.

As EPA readily concedes in the preamble accompanying the new standard, the agency has not yet revised the screening tools used by air permit applicants to demonstrate compliance with the 1-hr NAAQS. 75 Fed. Reg. at 6525. Specifically, EPA has not yet issued, even in draft form, a proposed Significant Impact Level (SIL) or a PSD increment standard for the 1-hr NO<sub>2</sub> NAAQS. The little guidance EPA has provided consists of a short memo posted on the EPA website suggesting one possible way to compare the results of the AERMOD model to the 1-hr NO<sub>2</sub> standard.

B. Assessing Plant Washington's Impact on the New 1-hr NO<sub>2</sub> NAAQS

In the absence of established screening tools to demonstrate compliance with the new 1-hr NO<sub>2</sub> standard, Power4Georgians has analyzed the predicted impact of Plant Washington on the new standard by reviewing the Plant Washington modeling analysis for NO<sub>2</sub>, the preamble of EPA's Final Rule, and available NO<sub>2</sub> monitoring data in Georgia. Based on the information reviewed, Plant Washington is not expected to cause or contribute to a violation of the new standard.

First, Plant Washington's modeling analysis for the annual NO<sub>2</sub> NAAQS suggests that NO<sub>x</sub> emissions from the facility will not have a significant impact on ambient NO<sub>2</sub> concentrations. The SIL for the annual NO<sub>2</sub> standard is 1 µg/m<sup>3</sup>. Pursuant to EPA modeling guidelines, a facility's modeled impacts are compared to the established SIL values and, if the SILs are not exceeded, a refined modeling assessment for the pollutant of interest is not required. As

indicated in Appendix D of the EPD's Preliminary Determination for the Plant Washington PSD permit, the highest predicted annual average NO<sub>2</sub> concentration for Plant Washington was 0.4578 µg/m<sup>3</sup>, which is less than half of the applicable annual SIL. Accordingly, Power4Georgians did not need to conduct a refined modeling assessment for NO<sub>2</sub> emissions to conclude that Plant Washington would not cause or contribute to a violation of the annual NO<sub>2</sub> NAAQS. These results of Plant Washington's modeling for the annual NO<sub>2</sub> NAAQS suggest that any impact from Plant Washington on the new 1-hr NO<sub>2</sub> standard will likewise be minimal. The NO<sub>2</sub> annual modeling also showed that the highest impacts from Plant Washington were predicted to occur within close proximity to the plant (i.e., less than 2 kilometers).

Second, Plant Washington will be located far from the urban areas and major roadways that are the focus of the new 1-hr NO<sub>2</sub> standard. The new 1-hr NO<sub>2</sub> NAAQS is based on new studies of health impacts from short-term NO<sub>2</sub> concentration increases that occur around major roadways in large urban centers. To enforce the new standard, EPA will require an expansion the states' existing ambient monitoring networks to focus on the impacts of short-term NO<sub>2</sub> concentrations near major roadways, community-wide NO<sub>2</sub> concentrations in large urban areas, and those populations susceptible or vulnerable to the adverse health impacts of elevated NO<sub>2</sub> concentrations. Based on the criteria established for installation of new NO<sub>2</sub> monitors to assess impacts to the 1-hr NO<sub>2</sub> standard, it is unlikely that any monitors will be installed in the vicinity of Sandersville or Washington County, and Washington County would not be an immediate area of concern identified as potentially problematic for existing problems with 1-hr NO<sub>2</sub> concentrations. Thus, Plant Washington's location away from the urban areas that were the focus of the new 1-hr standard further confirms that NO<sub>x</sub> emissions from the facility are not likely to cause or contribute to a violation of the 1-hr NO<sub>2</sub> NAAQS.

Third, a review of the available NO<sub>2</sub> monitoring data from the four Georgia ambient monitors indicates that emissions from Plant Washington will not likely cause or contribute to a violation of the new 1-hr NO<sub>2</sub> standard. Initially, EPA's exhaustive review of NO<sub>2</sub> air monitoring data from 2006 to 2008 indicated that a *single* air monitor — located in downtown Chicago, Illinois — would currently violate the new 100 ppb 1-hr NO<sub>2</sub> standard. The 3-yr design values for the three Georgia NO<sub>2</sub> monitors reviewed by EPA ranged from 28 to 68 ppb, all well below the 1-hr NO<sub>2</sub> standard.

A closer review of recent data from the four ambient NO<sub>2</sub> monitors in Georgia further supports the conclusion that Plant Washington will not likely cause or contribute to a violation of the new 1-hr NO<sub>2</sub> standard. Two of the existing monitors in Georgia are located in urban areas. The Dekalb County NO<sub>2</sub> monitor is located in close proximity to I-285; the Fulton County NO<sub>2</sub> monitor is located on the Georgia Tech campus near I-75/85. Even though these monitors are located in densely populated urban areas and in close proximity to major roadways, the 3-yr design values for 1-hr NO<sub>2</sub> concentrations at these two locations for 2006 to 2008 — 68 ppb Fulton; 61 ppb Dekalb — are still well below the new 1-hr NO<sub>2</sub> standard. That is true notwithstanding the proximity of these two monitors to a large coal-fired power plant. Specifically, the Fulton County monitor is located approximately 9 km from Plant McDonough, and the Dekalb County monitor is located approximately 23 km from Plant McDonough. Plant McDonough emitted 3,489 tons of NO<sub>x</sub> in 2008, which is *nearly double* the amount of NO<sub>x</sub> that Plant Washington is permitted to emit (1,818 tons/yr).

Data from the other two NO<sub>2</sub> monitors in Georgia, both of which lie on the outskirts of Atlanta, is even more compelling. The Rockdale County monitor is located approximately 60 km northwest of Plant Scherer and downwind from the Atlanta metropolitan area. Plant Scherer emitted approximately 18,225 tons of NO<sub>x</sub> in 2008, yet the maximum 1-hr NO<sub>2</sub> concentration for this monitor for 2008 was only 33 ppb. The Paulding County monitor is located approximately 24 km southwest of Plant Bowen (24,070 tons of NO<sub>x</sub> in 2008) and 45 km southeast of Plant Hammond (6,096 tons of NO<sub>x</sub> in 2008). Despite the proximity of this monitor to two large stationary sources of NO<sub>x</sub>, the maximum 1-hr NO<sub>2</sub> concentration for the Paulding county monitor in 2008 was only 35 ppb.

This monitoring data demonstrates that ambient NO<sub>2</sub> concentrations in Georgia can be maintained well below the new 1-hr standard notwithstanding the close proximity of large coal-fired power plants — some emitting *over ten times* the amount of NO<sub>x</sub> that Plant Washington will be allowed to emit. Moreover, the ongoing implementation of Georgia's Multi-pollutant Rule, Ga. Comp. R. & Regs. r. 391-3-1-.02(2)(sss), will continue to reduce NO<sub>x</sub> emissions from existing coal-fired power plants in Georgia, such that the low ambient NO<sub>2</sub> levels recorded at Georgia's monitors will likely be even lower by the time Plant Washington commences operations. Based on the available monitoring data in Georgia, Plant Washington is not likely to have a significant impact on ambient NO<sub>2</sub> concentrations in the State or otherwise cause or contribute to a violation of the new 1-hr NO<sub>2</sub> NAAQS.

### C. Conclusion

In sum, Power4Georgians has reviewed (1) the NO<sub>2</sub> modeling that has already been performed for Plant Washington; (2) the areas of focus for the new 1-hr NO<sub>2</sub> standard (i.e., large urban areas with large numbers of mobile sources); and (3) the recent 1-hr NO<sub>2</sub> concentrations recorded at Georgia air monitors, all of which are well below the new 1-hr NO<sub>2</sub> standard notwithstanding the monitors' close proximity to existing coal-fired power plants that emit much more NO<sub>x</sub> than the Plant Washington permit will allow. The information reviewed all confirms that Plant Washington will not cause or contribute to a violation of the new 1-hr NO<sub>2</sub> NAAQS.