



July 16, 2008

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RULES AND DIRECTIVES  
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US/NRC

RE: Comments on the DSEIS for Vogtle License Renewal

To Whom It May Concern:

Southern Alliance for Clean Energy (SACE) is a non-profit energy policy organization with members throughout Georgia. We promote responsible energy choices that create global warming solutions and ensure clean, safe and healthy communities in the Southeast. SACE believes that extending the operating life of the existing Vogtle reactors poses unacceptable risks that should be avoided. Southern Company's Plant Vogtle is also the only site in the country undergoing permitting with the U.S. NRC for a license renewal, an early site permit (ESP), and most recently, a combined operating license (COL). We have serious concerns about the ability of the NRC and other relevant agencies to thoroughly review all the permits in a holistic manner that ensures coordination between the respective NRC project teams. Our review of the draft EIS does nothing to alleviate those concerns. For instance, it is not even clear what is different in Southern Company's environmental report from their license renewal application from August 2007 versus the NRC's draft SEIS from April 2008 on the license renewal. Both are 479 pages. Word searches result in finding the same word on exactly the same page in exactly the same place on the page within each document. How can the public be assured that the NRC did anything more than cut and paste Southern Company's environmental report into the NRC's draft EIS? In that spirit, many of our comments below are reiterating what we have already filed since it is unclear whether any of our previous comments were ever considered.

**Other Energy Choices Exist**

We requested in our environmental scoping comments that the NRC fully research other energy choices, including renewables and energy efficiency and conservation as the application from Southern Nuclear was woefully inadequate. From our review of the draft EIS, this still hasn't been done. In fact, in earlier comments we told the NRC about new certified wind maps of Georgia that were released by the National Renewable Energy Laboratory in October 2006 that show there is substantial wind power available, especially offshore, with a potential of 10,000MW. (See the Georgia Wind Working Group website at [www.gawwg.org](http://www.gawwg.org).) Yet information in the draft EIS on p. 7.2-8 still references 1986 data in spite of Southern Company being involved in an offshore wind study with Georgia Tech that was released in 2007, "Southern Winds: Summary Project Report 2007, A study of wind power generation potential off the coast of Georgia." That study recommended that Southern Company continue to pursue offshore wind. Why is there still no mention of this in the draft EIS? Renewable energy, such as wind, offer water benefits. According

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to the Department of Energy's National Renewable Energy Laboratory, developing 1000 MW of wind in Georgia would save 1628 million gallons of water per year.<sup>i</sup> The NRC has completely overlooked this important information in the draft EIS and it must be incorporated before the final EIS is issued.

The draft EIS is still deficient in its analysis of energy efficiency. Energy efficiency and conservation represent the quickest, safest, cheapest way to provide more power and to best protect our air and water resources. As an added benefit, increased energy efficiency reduces water consumption by power plants that compete with local industries and cities for much needed water. The NRC makes no mention of this connection. In December 2007, Georgia's Drought Response Unified Command (DRUC) highlighted the water-energy connection, issuing a statewide press release that stated:

*DRUC encourages Georgians to help save water by conserving electricity. Large amounts of water are required to generate electricity. In Georgia, each kilowatt hour (kWh) of electricity production consumes 1.65 gallons of water according to the National Renewable Energy Laboratory.<sup>ii</sup> To put it in context, the average Georgia household's electricity use is 1,148 kilowatt hours per month, requiring 1,894 gallons of water to generate.<sup>iii</sup>*

### **Negative Impacts on Our Water Resources**

Power plants have a tremendous impact on our water resources. Our energy choices make a big difference on the future of the river basins and the communities and businesses reliant on those water sources. And given that the license renewal for Vogtle is for 20 additional years of operation—taking us to 2047 and 2049 if approved, we believe the NRC needs to evaluate not only the Georgia of today, but the Georgia we may be living in 40 years from now. But the draft EIS doesn't do this. The State of Georgia and surrounding states continue to face drought conditions, yet there does not appear to be any analysis of the current situation in the draft EIS nor analysis beyond a level 3 drought. Plant Vogtle is a large water user with an average withdrawal of 64 million gallons per day from the Savannah River and an average water consumption of 43 million gallons per day. That means that currently Vogtle is returning only about one-third of what it withdraws from the Savannah River. An additional 20 years of operation, as populations increase, will not be a positive development for our water resources.

Further, the proposed new nuclear reactors at Plant Vogtle are estimated to use 53 million gallons of water per day with 50-75% of that lost as steam. (*Southern Nuclear Operating Company, Early Site Permit Application, Environmental Report, August 2006*). This means that more water will be lost from the two existing and two proposed reactors at Plant Vogtle than is currently used by all residents of Atlanta, Augusta, and Savannah combined.<sup>iv</sup> Yet, the application doesn't discuss the cumulative impacts of the existing and proposed reactors and instead passes the buck to the early site permit process. From our review of the draft EIS for the ESP at Vogtle, the cumulative impacts on water quality and quantity have not been satisfactorily evaluated. Therefore, we believe that this issue is also deficient in terms of the license renewal evaluation.

There are concerns about tritium contamination, a radioactive form of hydrogen that can impact our health. Faced with saltwater intrusion of the Floridan Aquifer, both Beaufort and Jasper counties in South Carolina and the Savannah area will become more dependent on the Savannah River for drinking water. In fact, in 2009 the City of Savannah's main line will begin blending Floridan aquifer with Savannah River water in order to help meet groundwater use reduction requirements.

There is no mention of this in the draft EIS. Plant Vogtle already contributes to the tritium in the river and allowing the reactors to operate for longer will do nothing to reduce this reality, let alone when and if more reactors come online. The NRC needs to study tritium in the river, future projections especially given the Savannah River Site's already large contribution to the tritium pollution, and to analyze this with droughts and future population growth in mind.

### **Licensing Deficiencies / Regulatory Concerns**

As we mentioned earlier, we have grave concerns that too many permits are occurring at the same time with Plant Vogtle: a license renewal, an early site permit, and a combined operating license. Can the NRC keep up with all of this in a manner that is truly protective of public health? From our review of the draft EIS for the renewal and the draft EIS for the ESP, we are doubtful; as we all know, bureaucracies themselves have their deficiencies. The idea that everything will be coordinated seamlessly between all these different staff and all these different projects seems unrealistic and now we have further proof that it is not being achieved.

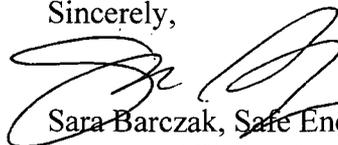
### **Global Warming**

We asked the NRC to evaluate predicted effects of global warming on this region and how nuclear power plants may be negatively impacted or unable to generate electricity. This was demonstrated by the heat wave this past summer in Europe and the U.S.—when nuclear power plants from Sweden to Alabama had to power back because the lake or river water temperatures were too high to allow for safe operation of their nuclear power plants. Yet this hasn't been analyzed in the draft; it must be done before a final EIS is issued. It wasn't done for the draft of the ESP either. When will the NRC address this important issue? When it is too late?

### **Summary**

The draft EIS for the relicensing of Plant Vogtle along with the draft EIS for the early site permit demonstrate that the NRC is not adequately protecting human health or the environment, rather, the NRC is protecting the nuclear power industry. Overlooking clean, safe energy alternatives and ignoring the tremendous impacts to our water resources and pocketbooks is not acceptable. The NRC must do better before issuing the final environmental impact statements.

Sincerely,



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<sup>1</sup> National Renewable Energy Lab, *Economic Benefits, Carbon Dioxide (CO<sub>2</sub>) Emissions Reductions, and Water Conservation Benefits from 1,000 Megawatts (MW) of New Wind Power in Georgia*, June 2008. 300 MW land based and 700 MW offshore.

<sup>2</sup> National Renewable Energy Laboratory, *Consumptive Water Use for U.S. Power Production*, Paul A. Torcellini, Nicholas Long, & Ronald D. Judkoff, Dec. 2003.

<sup>3</sup> DRUC Press Release, 12/11/07, at <https://www.piersystem.com/go/doc/1619/185714/>.

<sup>4</sup> Using 2005 Census figures and with the average per capita daily water use in GA at 75 gallons from surface and ground water sources, <http://water.usgs.gov/watuse/tables/dotab.st.html>. Water use figures for new reactors from Southern Nuclear Operating Company, Vogtle Early Site Permit Application, Environmental Report, August 2006.