

# Georgia Department of Natural Resources

2 Martin Luther King, Jr. Drive, S.E., Suite 1252 East, Atlanta, Georgia 30334-9000

Noel Holcomb, Commissioner

404/656-3500

Environmental Protection Division

Carol A. Couch, Ph.D., Director

404/656-4713

November 28, 2007

Chief of Rulemaking, Directives, and Editing Branch  
Division of Administrative Services  
Office of Administration  
Mailstop T-6D59  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

To Whom It May Concern :

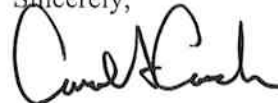
Enclosed are comments by the Georgia Department of Natural Resources, Environmental Protection Division (EPD) on the *Draft Environmental Impact Statement for an Early Site Permit (ESP) at the Vogtle Electric Generating Plant Site*, published September 2007 and noticed in the Federal Register on September 14, 2007 (72 FR 52586). These comments are based on review of the draft environment impact statement (DEIS), the presentation and material offered at the public meeting held on October 4, 2007 in Waynesboro, Georgia, and information exchanged in informal meetings and communications with officials associated with the Vogtle facility.

EPD fully supports the work of the Southern Company and its local operating subsidiaries – Georgia Power Company and Southern Nuclear Operating Company – in providing reliable electrical power to the citizens of Georgia. However, we are keenly aware of and concerned with the impacts of energy production and use on Georgia's environment through consumption of natural resources, generation of waste, and potential degradation of ecosystems and loss of their services. We do appreciate the Southern Company for sharing these concerns and for working in partnership with us to address them.

Topics that we will work with you to address are some site-specific potential impacts, including those related to water withdrawal from the Savannah River and discharge of treated sanitary waste and tritium-contaminated liquid effluent back to the river. We therefore reserve final comment until we have received and reviewed more detailed information from Southern Nuclear's permit applications for surface water withdrawal and wastewater discharge and from NRC's draft Final Safety Evaluation Report.

EPD appreciates the opportunity to submit comment on this DEIS. We intend for them to be useful and constructive in Southern Company's continued stewardship of Georgia's environmental resources. If you have any questions or need additional information, please contact Dr. Marlin Gottschalk at (404) 657-5419.

Sincerely,



Carol A. Couch, Ph.D.  
Director

CAC:mgc

Enclosure

cc w/enclosure: Noel Holcomb, Commissioner  
Lauren Travis, Governor's Office

**Draft Environmental Impact Statement  
For an Early Site Permit (ESP) at the  
Vogtle Electric Generating Plant Site  
September 2007**

**Comments by the Georgia Department of Natural Resources,  
Environmental Protection Division  
November 28, 2007**

These comments by the Georgia Department of Natural Resources, Environmental Protection Division (EPD) focus on select potential environmental impacts from the construction and operation of a new nuclear power generating facility by Southern Nuclear Operating Company, Inc. (Southern) within the existing Vogtle Electric Generating Plant site. They are listed in alphabetical order, with no inference to importance or priority. They do not cross-reference to specific text or citations within the Draft Environmental Impact Statement (DEIS).

**Air Quality Impacts**

The DEIS addresses impacts to air quality from both construction and operations activities at the Vogtle site. Construction-related emissions include fugitive dust from ground-clearing, grading and excavation activities and exhaust emissions from construction vehicles and equipment. While Southern has stated in its Environmental Report that it will develop a dust control plan to mitigate fugitive dust emissions, it does not propose mitigation of exhaust emissions from construction vehicles and equipment. Nor does Southern propose to mitigate exhaust emissions from emergency and standby diesel power generators used during plant operations. EPD encourages Southern to limit these exhaust emissions and protect the health of on-site workers and nearby residents by using new, retrofitted or re-powered construction equipment and power generators that meet applicable federal non-road engine emission standards, as well as adopting anti-idling measures and using "clean" diesel fuel, e.g., ultra-low sulfur diesel or biodiesel.

**Radiological Health Impacts**

EPD finds that the U.S. Nuclear Regulatory Commission (NRC) assessments of radiological concerns from station operation impacts at the Vogtle site are valid and consistent with known and accepted radiological protective protocols. However, we did note the following issues.

NRC indicates in the DEIS that Southern Company did not evaluate drinking water doses of radionuclides, because there is no current downstream drinking water use within 160 kilometers (100 miles) of Plant Vogtle (see page 5-54). We would note that the City of Savannah, slightly more than 100 miles downstream, withdraws approximately 30 million gallons per day from the Savannah River for drinking and industrial uses. Also, given the momentum to shift from groundwater to surface water withdrawals along the coast and the expected population and economic growth along the coast over the next few decades, we would assume that at some point during the life of the proposed two new units at Vogtle, somebody within 100 miles downstream will seek use of the Savannah River for drinking water purposes. This potential radiological health

impact needs to be addressed, since the operation of new reactors at the site will increase the amount of tritium-contaminated liquid effluent discharged into the Savannah River.

The NRC's Safety Evaluation Report, that is scheduled for publication in May 2008, for the two proposed new nuclear reactors at Plant Vogtle will allow for more detailed scrutiny covering emergency preparedness. The DEIS did not conduct a thorough assessment of applicable radiological safety-related issues, since the EIS process does not lend itself to that aim. We reserve the right to make determinations of the adequacy of proposed emergency preparedness measures and comment on those issues at that time.

EPD requests that the section on radiological monitoring in the final EIS also acknowledge and describe independent environmental monitoring conducted by EPD's Environmental Radiation Program. Our efforts are an important part of the overall strategy to monitor radioactive releases from Plant Vogtle and protect the public's health..

### **Water-Related Impacts**

EPD is currently completing a comprehensive state-wide water plan, which the Georgia General Assembly will adopt during its 2008 legislative session. The plan is expected "to improve decisions about water management, to plan for water resource quality and quantity on a regional level, and to provide flexibility for best meeting water quality and quantity goals suited to a given region of the state." The Savannah River Basin is one of those given regions. It is within the context of this water management planning effort that EPD makes the following comments on water-related impacts.

We note that the DEIS does not consider an exceptional drought scenario, i.e., Drought Level 4, which is currently impacting nearly half of Georgia and a significant portion of the southeastern United States. Until such time as Southern has submitted the required water supply/withdrawal and National Pollutant Discharge Elimination System (NPDES) permit applications for the facility and we have an opportunity to review it in the context of current water planning efforts, consumptive water losses, and any contingencies necessary to manage future droughts, we are unable to provide any final determinations on applicable environmental permitting issues. We reserve the right to make those determinations and comment on those issues at that time.

However, it is important to note that NPDES permit No. GA0026786 has been extended effective 5/21/2004. The permit was extended in response to a Total Maximum Daily Load (TMDL) for dissolved oxygen in the Savannah Harbor. The TMDL mandates that no increase in oxygen-demanding loads can be permitted between Thurmond Dam and the Savannah Harbor. In fact, the TMDL states that the assimilative capacity in the harbor is already exceeded by the current discharges and must be addressed

The proposed expansion of Plant Vogtle will ultimately result in an increased discharge of cooling tower blowdown to the Savannah River, but these waste streams are not covered under the TMDL, due to the lack of any oxygen demanding constituents. The concern at this time is the handling of sanitary wastewaters at the facility and how this will potentially contribute to an increase in effluent Biochemical Oxygen Demand (BOD). The facility needs to anticipate and plan for the additional sanitary wastewater being generated through both the construction phase, and ultimate operation of the plant. At this time, any expansion of the sanitary sewer treatment facility, or new

discharge of oxygen demanding constituents, will have to be handled through a no discharge system.

As the USEPA, Georgia EPD, and South Carolina DHEC are currently discussing the Georgia dissolved oxygen standard and the applicable November 2006 TMDL, EPD suggests that the parties to this ESP application communicate with EPD regarding any developments with these issues. Communications relating to the current water and wastewater permits, or the TMDL, should be directed to Jeff Larson at (404) 675-6236.