

**Southern Nuclear  
Operating Company, Inc.**  
42 Inverness Center Parkway  
Birmingham, Alabama 35242

MAY 05 2010



Docket Nos.: 52-011

ND-10-0891

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, DC 20555-0001

Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Units 3 and 4  
Early Site Permit Site Safety Analysis Report Amendment Request  
Response to Request for Additional Information Concerning Hydrology

Ladies and Gentlemen:

By letter dated April 20, 2010, Southern Nuclear Operating Company (SNC) submitted a license amendment request to the U.S. Nuclear Regulatory Commission (NRC), in accordance with 10 CFR 50.90, to change the Vogtle Electric Generating Plant (VEGP) Units 3 and 4 Early Site Permit (ESP) Site Safety Analysis Report (SSAR). The requested change would allow the use of onsite backfill areas not specifically identified in the SSAR. SNC requested the license amendment request be processed on an exigent basis. During the NRC's review of this amendment request, the NRC identified a need for additional information, involving hydrology. This additional information need was conveyed to SNC in a teleconference between the NRC and SNC held on May 4, 2010. The additional information provided serves as supplemental information and does not change the scope of the requested amendment nor does it change the significant hazards consideration provided in the amendment request. The enclosure to this letter provides SNC's response to this additional information need.

If you have any questions regarding this letter, please contact Mr. Brandon Waites at (205) 992-7024. Thank you.

D078  
NRO

Mr. C.R. Pierce states he is the AP1000 Licensing Manager of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

*Charles R. Pierce*

Charles R. Pierce

Sworn to and subscribed before me this 5<sup>th</sup> day of May, 2010.

Notary Public: Dana M. Williams

My commission expires: 12/29/2010

CRP/BJS/dmw

Enclosure 1: Response to NRC Request for Additional Information on the License  
Amendment Request to Change the VEGP Units 3 and 4 ESP SSAR  
Regarding Hydrology



cc: Southern Nuclear Operating Company

Mr. J. H. Miller, III, President and CEO (w/o enclosure)  
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Mr. J. T. Gasser, Executive Vice President, Nuclear Operations (w/o enclosure)  
Mr. B. L. Ivey, Vice President, Nuclear Development Support (w/o enclosure)  
Mr. D. H. Jones, Site Vice President, Vogtle 3 & 4 (w/o enclosure)  
Mr. T. E. Tynan, Vice President - Vogtle (w/o enclosure)  
Mr. D. M. Lloyd, Vogtle 3 & 4 Project Support Director (w/o enclosure)  
Mr. M. K. Smith, Technical Support Director (w/o enclosure)  
Mr. M. J. Ajluni, Nuclear Licensing Manager  
Mr. J. D. Williams, Vogtle 3 & 4 Site Support Manager  
Mr. T. C. Moorner, Manager, Environmental Affairs, Chemistry and Radiological Services  
Mr. J. T. Davis, Vogtle 3 & 4 Site Licensing Supervisor  
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File AR.01.01.06

Nuclear Regulatory Commission

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Mr. L. M. Cain, Senior Resident Inspector of VEGP 1 & 2  
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Georgia Department of Natural Resources – Commissioner's Office

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Mr. T. Beville, DOE/PM

**Southern Nuclear Operating Company**

**ND-10-0891**

**Enclosure**

**Response to NRC Request for Additional Information  
on the License Amendment Request to  
Change the VEGP Units 3 and 4 ESP SSAR  
Regarding Hydrology**

**NRC Question No. 1**

The amendment request does not specify the depth to which excavation for suitable backfill will occur in the additional borrow areas. The excavations may include all of the Barnwell Group of sands. Some of the Barnwell group of sands extends below water table. Will the excavations include removal of material located below the water table?

**SNC Response:**

No. While the Barnwell Group does include strata within the Water Table Aquifer, these strata also include unsuitable materials containing clays, oyster shells, and limestone. Excluding the power block excavation which by design removed all materials above the Blue Bluff Marl, all borrow excavations to date have been terminated well above the water table aquifer due to exhaustion of acceptable material. Future excavations for borrow material will remain above the Water Table Aquifer.

**NRC Question No. 2**

To what extent will the additional borrow area excavations be redressed?

**SNC Response:**

All borrow areas will be subject to the requirements of the Georgia Erosion and Sedimentation Control Act and will be covered under Georgia General NPDES Permit GAR00001 for Discharges of Stormwater from Construction Sites. The requirements include a site specific Erosion Sedimentation and Control Plan. Each area requires submittal of a Notice of Intent for coverage under the permit and a Notice of Termination when the project is complete and vegetation is adequately established. This plan contains specific requirements for re-vegetation of disturbed areas to minimize future erosion. The detailed re-vegetation plan includes items such as: specific seed mix, fertilizer and minimum coverage requirements. SNC plans to conduct additional actions to enhance these areas for long term use by wildlife. These actions are currently being developed and will be consistent with the Land and Wildlife Management Plan established by the site for the Certified Wildlife Habitat designation granted by the Wildlife Habitat Council.