

**Southern Nuclear  
Operating Company, Inc.**  
40 Inverness Center Parkway  
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**AUG 31 2009**

Docket Nos.: 52-025  
52-026

ND-09-1329

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

Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Units 3 and 4 Combined License Application  
Response to Request for Additional Information Letter No. 038

Ladies and Gentlemen:

By letter dated March 28, 2008, Southern Nuclear Operating Company (SNC) submitted an application for combined licenses (COLs) for proposed Vogtle Electric Generating Plant (VEGP) Units 3 and 4 to the U.S. Nuclear Regulatory Commission (NRC) for two Westinghouse AP1000 reactor plants, in accordance with 10 CFR Part 52. During the NRC's detailed review of this application, the NRC identified a need for additional information, involving how certain interfaces with the standard AP1000 design have been met, required to complete their review of the COL application's Final Safety Analysis Report (FSAR) Section 8.2, "Offsite Power System." By letter received August 4, 2009, the NRC provided SNC with Request for Additional Information (RAI) Letter No. 038 concerning this information need. This RAI letter contains one RAI question numbered 08.02-12. The enclosure to this letter provides the SNC response to this RAI.

If you have any questions regarding this letter, please contact Mr. Wes Sparkman at (205) 992-5061.

D092  
NRC

Mr. Charles 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

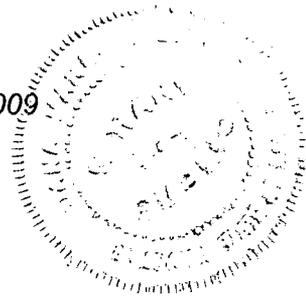
*Charles R. Pierce*

Charles R. Pierce

Sworn to and subscribed before me this 31<sup>st</sup> day of August, 2009

Notary Public: Dana M. Williams

My commission expires: 12/29/2010



CRP/BJS/dmw

Enclosure: Response to NRC RAI Letter No. 038 on the VEGP Units 3 & 4 COL  
Application Involving the Offsite Power System

cc: Southern Nuclear Operating Company

Mr. J. H. Miller, III, President and CEO (w/o enclosure)  
Mr. J. T. Gasser, Executive Vice President, Nuclear Operations (w/o enclosure)  
Mr. J. A. Miller, Executive Vice President, Nuclear Development (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  
Mr. M. K. Smith, Technical Support Director  
Mr. M. J. Ajluni, Nuclear Licensing Manager  
Mr. W. A. Sparkman, COL Project Engineer  
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Nuclear Regulatory Commission

Mr. L. A. Reyes, Region II Administrator (w/o enclosure)  
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Mr. M. M. Comar, Project Manager of New Reactors  
Mr. M. D. Notich, Environmental Project Manager  
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Georgia Power Company

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Mr. S. M. Jackson, Vice President, Power Supply

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Mr. R. B. Sisk, Manager, AP1000 Licensing and Customer Interface  
Mr. S. A. Bradley, Vogtle Project Licensing Manager  
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Mr. R. J. Grumbir  
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Ms. K. N. Slays

**Southern Nuclear Operating Company**

**ND-09-1329**

**Enclosure**

**Response to NRC RAI Letter No. 038**

**on the**

**VEGP Units 3 & 4 COL Application**

**Involving the**

**Offsite Power System**

## **FSAR Section 8.2, Offsite Power System**

### **eRAI Tracking No. 3335**

#### **NRC RAI Number 08.02-12:**

Table 1.8-1 of the AP1000 design certification provides an interface item that states "the protective devices controlling the switchyard breakers are set with consideration given to preserving the plant grid connection following a turbine trip." This is to ensure that RCP bus voltage stays above the voltage required to maintain the flow assumed in the DCD Tier 2, Chapter 15 analyses for a minimum of 3 seconds following a turbine trip. Provide a reference to where this issue is discussed in the Vogtle application, or provide a proposed revision to the application to address the issue.

#### **SNC Response:**

The response to RAI 01-2 (RAI letter No. 037), provided in SNC letter ND-09-1114, dated July 16, 2009 included a proposed revision to the FSAR and the addition of a new Table 1.8-205, titled "Summary of FSAR Discussions of AP1000 Plant Interfaces." Within this table, Interface Item No. 8.3 addresses the requirements for protective devices controlling the switchyard breakers and FSAR Sections 8.2.2 and 14.2.9.4.23 were identified as satisfying that portion of the interface. However, additional changes (noted below) will be incorporated into a future application revision to further address this interface.

#### **Associated VEGP COL Application Revisions:**

1. COLA Part 2, FSAR Chapter 8, will be revised to add the following paragraph at the end of Subsection 8.2.1.2.1 with a left margin annotation (LMA) of VEGP SUP 8.2-X (where X will be the next sequential supplement in FSAR Section 8.2):

"The protective devices controlling the switchyard breakers are set with consideration given to preserving the plant grid connection following a turbine trip."

2. COLA Part 2, FSAR Chapter 1, Table 1.8-205, Interface Item No. 8.3, will be revised to add "8.2.1.2.1" in the far right hand column titled "Section or Subsection".

#### **Attachments/Enclosures:**

None.