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MAY 21 2010

Docket Nos.: 52-025
52-026

ND-10-0996

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
Revised Response to Bellefonte Units 3 and 4
Safety Evaluation Report Open Items for Chapter 16

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. As a result of the NRC's detailed review of the initial AP1000 Reference COL application (Bellefonte Units 3 and 4), the NRC has written a safety evaluation report (SER) with open items for the subject chapter. VEGP is addressing the open items identified in the SER in the enclosure to this letter as the new Reference COL applicant. This response replaces the previous responses submitted on July 17, 2009, and March 1, 2010. For completeness, each open item is identified, but responses are provided only for the items impacting standard information or otherwise resulting in standard changes for the AP1000 COL applications. The open items identified as plant specific will be addressed on the Bellefonte Units 3 and 4 docket by the Tennessee Valley Authority.

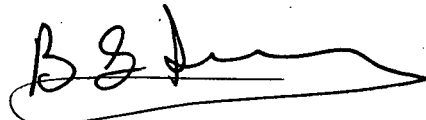
If you have any questions regarding this letter, please contact Mr. Wes Sparkman at (205) 992-5061 or Ms. Amy Aughtman at (205) 992-5805.

D092
NRC

Mr. B. L. (Pete) Ivey states he is a Vice President 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



B. L. (Pete) Ivey

Sworn to and subscribed before me this 21st day of May, 2010

Notary Public: Deborah A. Givorka

My commission expires: October 24, 2012

BLI/BJS/dmw

Enclosure: Response to R-COLA SER with Open Items, Chapter 16

cc: Southern Nuclear Operating Company

Mr. J. H. Miller, III, President and CEO (w/o enclosure)
Mr. J. A. Miller, Executive Vice President, Nuclear Development (w/o enclosure)
Mr. J. T. Gasser, Executive Vice President, Nuclear Operations (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. M. K. Smith, Technical Support Director (w/o enclosure)
Mr. D. M. Lloyd, Vogtle 3 & 4 Project Support Director (w/o enclosure)
Mr. C. R. Pierce, AP1000 Licensing Manager
Mr. M. J. Ajluni, Nuclear Licensing Manager
Mr. T. C. Moorer, Manager – Env. Affairs, Chemistry and Rad. Services
Mr. J. D. Williams, Vogtle 3 & 4 Site Support Manager
Mr. J. T. Davis, Vogtle 3 & 4 Site Licensing Manager
Mr. W. A. Sparkman, COL Project Engineer
Ms. A. G. Aughtman, AP1000 Project Engineer
Document Services RTYPE: AR01.1053
File AR.01.02.06

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Mr. B. C. Anderson, Project Manager of New Reactors
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Ms. S. Goetz, Project Manager of New Reactors
Mr. J. M. Sebrosky, Project Manager of New Reactors
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Mr. J. D. Fuller, Senior Resident Inspector of VEGP 3 & 4

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Mr. K. T. Haynes, Director of Contracts and Regulatory Oversight

Municipal Electric Authority of Georgia

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Westinghouse Electric Company, LLC

Mr. S. D. Rupprecht, Vice President of Regulatory Affairs & Strategy (w/o enclosure)
Mr. N. C. Boyter, Consortium Project Director Vogtle Units 3 & 4 (w/o enclosure)
Mr. S. A. Bradley, Vogtle Project Licensing Manager
Mr. M. A. Melton, Manager, Regulatory Interfaces
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Mr. D. A. Lindgren, Principal Engineer, AP1000 Licensing and Customer Interface

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Mr. G. D. Miller, PG&N
Mr. N. T. Simms, Duke Energy
Mr. G. A. Zinke, NuStart & Entergy
Mr. R. H. Kitchen, PGN
Ms. A. M. Monroe, SCE&G
Mr. T. Beville, DOE/PM

Southern Nuclear Operating Company

ND-10-0996

Enclosure

Response to R-COLA SER with Open Items

Chapter 16

Open Item

Response

16.01-01

See enclosed revision

eRAI Tracking No. 1450

NuStart Qb Tracking No. 3507

NRC SER OI Number 16.01-01:

Request for additional information (RAI) 16-1 was issued in accordance with COL/DC-ISG-8, and requested that the applicant identify the method of determining the trip setpoints and allowable values, as well as establish an associated document in which to record the site-specific values and other restrictions necessary to satisfy 10 CFR 50.36. The applicant should clarify that after selection of specific instrumentation, the trip setpoints and allowable values, referred to in Tables 3.3.1-1 and 3.3.2-1, will be calculated using the setpoint control program that specifies the approved methodology (i.e., WCAP-16361, APP-PMS-JEP-001, Revision 0, May 2006, "Westinghouse Setpoint Methodology for Protection Systems – AP1000"). In addition, the applicant should propose a setpoint control program to be added in the Administrative Control section of the technical specifications, as stated in COL/DC-ISG-8. This is identified as Open Item 16.1-1.

SNC Response:

NOTE: This response completely supersedes the responses provided on July 17, 2009, and March 1, 2010.

The operating trip setpoints and allowable values (for the RTS Instrumentation and the ESFAS Instrumentation listed in Technical Specification Tables 3.3.1-1 and 3.3.2-1) will be calculated using the approved methodology (i.e., WCAP-16361, APP-PMS-JEP-001, Revision 0, May 2006, "Westinghouse Setpoint Methodology for Protection Systems – AP1000").

As requested, the plant-specific technical specifications' Administrative Controls section will be revised as identified in the COL Application Revision section below to incorporate a setpoint control program. The COL Application Revision section below also identifies the necessary corresponding changes to other plant specific technical specifications and bases.

Westinghouse included these same changes in a recent submittal and will include these in an upcoming amendment to the AP1000 Design Control Document (DCD) generic technical specifications, and as such, these changes are not considered to be a departure from the DCD. Should Westinghouse not incorporate these changes as expected, a revision to this response will be provided to address the differences.

This response is expected to be STANDARD for the S-COLAs.

Associated VEGP COL Application Revisions:

See attachments to Westinghouse letter DCP/NRC2864 (dated May 6, 2010) - the same changes identified in the Westinghouse letter for the DCD Generic Technical Specifications and Bases will be directly incorporated into the COL plant-specific Technical Specifications and Bases (with the exception that the bracketed Reviewer's Notes will be removed).