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Docket Nos.: 52-025  
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ND-12-1327  
10 CFR 50.90

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

Southern Nuclear Operating Company  
Vogtle Electric Generating Plant Units 3 and 4  
Response to Request for Additional Information Letter No. 01  
Related to License Amendment Request (LAR) 12-003

Ladies and Gentlemen:

In accordance with the provisions of 10 CFR 50.90, by letter dated April 6, 2012 and revised by letters dated April 12, 2012, and May 7, 2012, Southern Nuclear Operating Company (SNC) submitted license amendment request (LAR) 12-003 to amend the Vogtle Electric Generating Plant (VEGP) Units 3 and 4 combined licenses (COLs) (License Nos. NPF-91 and NPF-92, respectively). During the course of the review of this LAR, the NRC staff identified the need for additional information to continue portions of the review. The NRC's request for additional information (RAI) was provided to SNC in RAI Letter No. 01 related to LAR-12-003, dated May 30, 2012. The enclosure to this letter provides the requested response to the subject RAI, which is also referred to as electronic RAI (eRAI) 6534.

This letter contains no regulatory commitments.

Should you have any questions, please contact Mr. Wesley A. Sparkman at (205) 992-5061.

DO92  
HRO

Mr. C. R. Pierce states that he is the Regulatory Affairs Director 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

*C. R. Pierce*

C. R. Pierce

CRP/ERG/dmw

Sworn to and subscribed before me this 29th day of June, 2012

Notary Public: Deborah A. Jaworski

My commission expires: October 24, 2012

Enclosure: Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Response to Request for Additional Information Letter No. 01 Related to License Amendment Request (LAR) 12-003

cc: Southern Nuclear Operating Company

Mr. S. E. Kuczynski, Chairman, President & CEO (w/o enclosure)  
Mr. J. A. Miller, Executive VP, Nuclear Development  
Mr. D. A. Bost, Chief Nuclear Officer (w/o enclosure)  
Mr. B. L. Ivey, VP, Regulatory Affairs  
Mr. M. D. Rauckhorst, VP, Vogtle 3 & 4 Construction (w/o enclosure)  
Mr. D. H. Jones, VP, Regulatory Affairs, Vogtle 3 & 4  
Mr. J. R. Johnson, VP, Operational Readiness, Vogtle 3 & 4 (w/o enclosure)  
Mr. T. E. Tynan, Site VP, Vogtle 1 & 2  
Mr. D. M. Lloyd, Project Support Director, Vogtle 3 & 4 (w/o enclosure)  
Mr. C. R. Pierce, Regulatory Affairs Director  
Mr. M. J. Ajluni, Nuclear Licensing Director  
Mr. D. L. Fulton, Environmental Manager  
Mr. J. D. Williams, Site Support Manager, Vogtle 3 & 4 (w/o enclosure)  
Mr. C. H. Mahan, Site Licensing Manager, Vogtle 3 & 4  
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Mr. W. A. Sparkman, Licensing Supervisor  
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Nuclear Regulatory Commission

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Mr. R. G. Joshi, Lead Project Manager of New Reactors  
Ms. D. L. McGovern, Project Manager of New Reactors  
Mr. B. M. Bovol, Project Manager of New Reactors  
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Mr. J. D. Fuller, Senior Resident Inspector of VEGP 3 & 4  
Mr. G. Khouri, Senior Project Engineer VEGP 3 & 4  
Mr. C. Abbott, Resident Inspector of VEGP 3 & 4  
Mr. C. Huffman, Resident Inspector of VEGP 3 & 4

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Mr. R. F. Ziesing, Director, Vogtle AP1000 Operations and Consortium Licensing (w/o encl.)  
Mr. P. A. Russ, Director, AP1000 Global Licensing  
Mr. R. A. DeLong, Director of U.S. & International Licensing (acting)  
Mr. S. A. Bradley, Vogtle Project Licensing Manager  
Mr. T. J. Ray, Manager, AP1000 COL Licensing Support

**Southern Nuclear Operating Company**

**ND-12-1327**

**Enclosure**

**Vogtle Electric Generating Plant (VEGP) Units 3 and 4**

**Response to Request for Additional Information Letter No. 01**

**Related to**

**License Amendment Request (LAR) 12-003**

**eRAI Tracking No. 6534**

**NRC RAI No. 01-1**

- a. SNC states (in Technical Evaluation Section) in part that the change of the tolerance for the basemat thickness identified in the DCD to +4 inches was chosen as a standard value to be sufficient for Vogtle Units 3 and 4, and future AP1000 applications.

This statement implies that SNC is requesting review of this tolerance for Vogtle Units 3 and 4 as well as for future AP1000 application. It is our understanding is that the subject LAR is for Vogtle Units 3 and 4 and not for other future applications. The scope of NRC review for this LAR is limited to Vogtle Units 3 and 4. Please revise the submittal to delete the reference to future AP1000 applications.

- b. SNC states (in Technical Evaluation) in part that the tolerance of +1 inch in the DCD Revision 19 was determined to be a misapplication of the standard tolerance for cast in place floors during the review of the as-built mudmat elevation.

Please explain the term 'misapplication?' Is this misinterpretation for Vogtle site using ACI 117 specifications for cast in place floor provision? Please clarify and make appropriate changes to the submittal accordingly.

- c. Technical Evaluation Section of the LAR (page 5 of 9 of Enclosure 1) refers to FSAR Subsection 2.5.4.10.2. The staff could not find the referenced section in the currently docketed Vogtle FSAR and therefore could not verify the validity of the statement, "Differential settlement of a few inches across the width of the nuclear island would not have an adverse effect on the safety-related functions of structures, systems, and components." Please provide the correct reference to the FSAR section and correct your submittal.

**SNC Responses:**

Item a response:

The NRC understanding is correct. The subject LAR is for Vogtle Units 3 and 4 only and the phrase "and future AP1000 applications" can be omitted.

Accordingly, the request for LAR-12-003 is herein revised in Enclosure 1, Section 3, from:

"The change of the tolerance for the basemat thickness identified in the DCD to +4 inches was chosen as a standard value to be sufficient for Vogtle Units 3 and 4, and future AP1000 applications."

To read:

"The change of the tolerance for the basemat thickness identified in the DCD to +4 inches was chosen as a standard value to be sufficient for Vogtle Units 3 and 4."

Item b response:

As indicated in the question, SNC identifies the tolerance of +1 inch in the DCD Revision 19 as a "misapplication" of the standard tolerance for cast in place floors during the review of the as-built mudmat elevation. However, the "misapplication" is that a standard tolerance for a similar type structure was conservatively applied by choice, not because the standard was considered to be applicable to the structure, i.e., to the basemat.

Accordingly, the request for LAR-12-003 is herein revised in Enclosure 1 to omit reference to "misapplication" by revising the subject sentence from:

"The tolerance of +1 inch in the DCD Revision 19 was determined to be a misapplication of the standard tolerance for cast in place floors during the review of the as-built mudmat elevation."

To read:

"Note 2 of the table in DCD Revision 19 provides an inappropriate construction tolerance for the basemat thickness. The tolerance in Note 2 in Revision 19 is a tolerance appropriate for slabs, including floors, cast using forms. The basemat is a foundation; it is not considered a floor. Where the DCD refers to the "walls and floors," the basemat is typically identified separately from the walls and floors to distinguish it as a separate structural element. The tolerance in Note 2 in Revision 19 is not the appropriate tolerance for a foundation cast against soil or similar conditions."

Item c response:

The reference to FSAR Subsection 2.5.4.10.2 is actually the location of the identified information within the integrated document that combines the information in the generic DCD Revision 19 as modified by departures, the COLA FSAR (as updated) and the ESPA SSAR as amended and modified by variances, i.e., UFSAR Subsection 2.5.4.10.2. This document has recently been submitted to the NRC as the periodic update of the safety analysis report required by 10 CFR Part 52, Appendix D, Section X, and by 10 CFR 50.71(e).

Additionally, the referenced information is also available in the previously docketed generic DCD Subsection 2.5.4.3, "Settlement," in the second paragraph (near the top of DCD page 2-14 of Revision 19).