

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



NOV 11 2010

Docket Nos.: 52-025
52-026

ND-10-2203

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
Voluntary Submittal Regarding COL Information Item 2.5-16

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. During the NRC's detailed review of this application, the NRC identified a need for additional information, involving the nuclear island foundation settlement analysis, required to complete their review of the COL application's Final Safety Analysis Report (FSAR) Subsection 2.5.4, "Stability of Subsurface Materials and Foundations." Based on discussions in public teleconferences in September and October 2010, the NRC requested that SNC provide a letter concerning this nuclear island foundation settlement analysis information need. The enclosure to this letter provides the SNC response to this NRC request.

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.

DO92
NR0

Mr. Charles R. Pierce states that 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

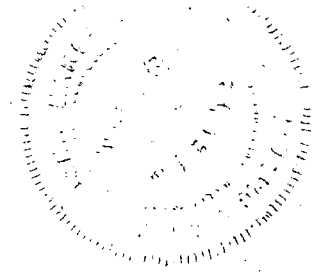
Sworn to and subscribed before me this 11th day of November, 2010

Notary Public: Dana Marie Williams

My commission expires: 12/29/2010

CRP/BJS

Enclosure: Voluntary Submittal Regarding COL Information Item 2.5-16



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. 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. M. K. Smith, Technical Support Director (w/o enclosure)
Mr. D. M. Lloyd, Vogtle 3 & 4 Project Support Director (w/o enclosure)
Mr. M. J. Ajluni, Nuclear Licensing Manager
Mr. T. C. Moorer, Manager, Environmental Affairs, Chemistry and Rad. Services
Mr. J. D. Williams, Vogtle 3 & 4 Site Support Manager
Mr. J. T. Davis, Vogtle 3 & 4 Site Licensing Supervisor
Mr. W. A. Sparkman, COL Project Engineer
Ms. A. G. Aughtman, Lead AP1000 Licensing Project Engineer
Document Services RTYPE: COR0507-03
File AR.01.02.06

Nuclear Regulatory Commission

Mr. L. A. Reyes, Region II Administrator
Mr. F. M. Akstulewicz, Deputy Director Div. of Safety Systems & Risk Assess. (w/o encl.)
Mr. R. G. Joshi, Lead Project Manager of New Reactors
Ms. T. E. Simms, Project Manager of New Reactors
Mr. B. C. Anderson, Project Manager of New Reactors
Mr. M. M. Comar, Project Manager of New Reactors
Ms. S. Goetz, Project Manager of New Reactors
Mr. J. M. Sebrosky, Project Manager of New Reactors
Mr. D. C. Habib, Project Manager of New Reactors
Ms. D. L. McGovern, Project Manager of New Reactors
Ms. T. L. Spicher, Project Manager of New Reactors
Ms. M. A. Sutton, Environmental Project Manager
Mr. M. D. Notich, Environmental Project Manager
Mr. L. M. Cain, Senior Resident Inspector of VEGP 1 & 2
Mr. J. D. Fuller, Senior Resident Inspector of VEGP 3 & 4

Georgia Power Company

Mr. T. W. Yelverton, Nuclear Development Director
Ms. A. N. Faulk, Nuclear Regulatory Affairs Manager

Oglethorpe Power Corporation

Mr. M. W. Price, Executive Vice President and Chief Operating Officer
Mr. K. T. Haynes, Director of Contracts and Regulatory Oversight

Municipal Electric Authority of Georgia

Mr. J. E. Fuller, Senior Vice President, Chief Financial Officer
Mr. S. M. Jackson, Vice President, Power Supply

Dalton Utilities

Mr. D. Cope, President and Chief Executive Officer

Bechtel Power Corporation

Mr. J. S. Prebula, Project Engineer (w/o enclosure)
Mr. R. W. Prunty, Licensing Engineer

Tetra Tech NUS, Inc.

Ms. K. K. Patterson, Project Manager

Shaw Stone & Webster, Inc.

Mr. B. Davis, Vogtle Project Manager (w/o enclosure)
Mr. J. M. Oddo, Licensing Manager

Westinghouse Electric Company, LLC

Mr. S. D. Rupprecht, Vice President, New Plant Product Services (w/o enclosure)
Mr. R. J. Buechel, Consortium Project Director Vogtle Units 3 & 4 (w/o enclosure)
Mr. R. F. Ziesing, Director, US Licensing, NPP
Mr. S. A. Bradley, Vogtle Project Licensing Manager
Mr. M. A. Melton, Manager, Regulatory Interfaces
Mr. D. A. Lindgren, Principal Engineer, AP1000 Licensing and Customer Interface

NuStart Energy

Mr. R. J. Grumbir
Mr. E. R. Grant
Mr. P. S. Hastings
Mr. B. Hirmanpour
Mr. N. Haggerty
Ms. K. N. Slays

Other NuStart Energy Associates

Ms. M. C. Kray, NuStart
Mr. S. P. Frantz, Morgan Lewis
Mr. J. A. Bailey, TVA
Ms. A. L. Sterdis, TVA
Mr. M. Vidard, EDF
Mr. W. Maher, FP&L
Mr. K. Hughey, Entergy
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. Miller, DOE/PM

Enclosure

Voluntary Submittal

Regarding

COL Information Item 2.5-16

eRAI Tracking No. N/A

NuStart Qb Tracking No. 4244

VEGP COL 2.5-16

FSAR Subsection 2.5.7.16, Settlement of Nuclear Island, states that VEGP COL 2.5-16 is addressed in ESPA SSAR Subsection 2.5.4. The ESP section was based on Revision 15 of the AP1000 Design Control Document (DCD). The VEGP COL FSAR section (based on DCD Revision 17) was submitted prior to the proposed revision included in Westinghouse letters dated June 21, 2010 (this letter includes changes to DCD Sections 2.5.4.3, key wording, "During construction and plant operation at a soil site, settlements would be measured and compared to the predicted settlement values and any exceedances would require additional investigation" and 2.5.4.6.11) and July 15, 2010 (additional changes to DCD Section 2.5.4.6.11). Please address the following:

1. The impact of the DCD revisions on the VEGP FSAR, especially the effect of construction sequence on settlement estimates.
2. The proposed revision to DCD Section 2.5.4.3 (Westinghouse letter dated June 21, 2010, page 9 of 11) provides "suggested alternatives for additional evaluations for any exceedances (from predicted settlement values)" and does not require specific alternatives that can be used by the licensee. Please describe which specific alternatives will be utilized by Vogtle.

SNC Response:

The DCD revisions to COL Information Item 2.5-16 (DCD Subsection 2.5.4.6.11) provided in the above-referenced Westinghouse letters dated June 21, 2010 (DCP_NRC_002924) and July 15, 2010 (DCP_NRC_002965) do not change the conclusions provided in FSAR Subsection 2.5.7.16, which provides a reference to ESPA SSAR Subsection 2.5.4. The construction sequence assumed to predict the settlement values provided in the ESPA SSAR is consistent with the nuclear island construction sequence requirements for basemat design adequacy as described in DCD Subsection 3.8.5.4.2.

Westinghouse addressed the above issue by revising their response to RAI-TR85-SEB1-36 in letter DCP_NRC_003072 dated October 22, 2010. The term "suggested" was removed from the proposed DCD changes for DCD Subsection 2.5.4.3 in order to clearly specify the evaluation alternatives for sites that do not satisfy the DCD parameters for limits of acceptable settlement given in DCD Table 2.5-1. These changes, once incorporated in forthcoming DCD Revision 18, will be incorporated by reference in a future revision of the VEGP COL application. Since the predicted settlement values are enveloped by the DCD values (see FSAR Table 2.0-201), the alternatives specified in DCD Subsection 2.5.4.3 are not required. Thus, no COL application changes beyond incorporation of DCD Revision 18 are necessary.

This response is PLANT-SPECIFIC.

Associated VEGP COL Application Revision:

None