

Southern Nuclear
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Docket Nos.: 52-025
52-026

ND-10-0325

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. 046

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 differential settlement between buildings for pipe stress evaluations, 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." By letter dated February 1, 2010, the NRC provided SNC with Request for Additional Information (RAI) Letter No. 046 concerning this pipe stress due to differential foundation settlement information need. This RAI letter contains one RAI question numbered 03.12-1. 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
NRD

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



Brian L. (Pete) Ivey

Sworn to and subscribed before me this 2nd day of March, 2010

Notary Public: Deborah A. Jaworska

My commission expires: October 24, 2012

BLI/BJS/dmw

Enclosure: Response to NRC RAI Letter No. 046 on the VEGP Units 3 & 4 COL
Application Involving Differential Settlement Between Buildings for Pipe
Stress Evaluations



cc: Southern Nuclear Operating Company

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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)
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Mr. J. D. Williams, Vogtle 3 & 4 Site Support Manager
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Mr. W. A. Sparkman, COL Project Engineer
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Southern Nuclear Operating Company

ND-10-0325

Enclosure

Response to NRC RAI Letter No. 046

on the

VEGP Units 3 & 4 COL Application

Involving Differential Settlement Between Buildings

for Pipe Stress Evaluations

FSAR Subsection 2.5.4, Stability of Subsurface Materials and Foundations

eRAI Tracking No. 3380

NRC RAI Number 03.12-1:

DCD (Revision 17) Table 2.5-1 identifies the limit of 1/2 inch for differential settlement between buildings. Section 2.5.4.10.2 of Vogtle ESPA shows the differential settlement between structures of less than 1 inch. The staff is requesting the applicant to address the impact of the building differential settlement on piping stress evaluation.

SNC Response:

Table 2.5-1 of the AP1000 DCD Revision 17 was revised by the Westinghouse Electric Company in Revision 2 of their response to RAI-TR85-SEB1-36 in a letter to the NRC dated July 21, 2009. In this table, the limit of differential settlement between the nuclear island and other structures is revised to 3 inches and will be incorporated in a future revision of the DCD. Thus, the differential settlement between the nuclear island and other structures of less than 1 inch, established in ESPA SSAR 2.5.4.10.2, meets the requirements provided in Revision 2 of the aforementioned Westinghouse RAI response.

Therefore, there will be no impact on the piping stress evaluation due to building differential settlement since the site differential settlement is bounded by the revised DCD per Revision 2 of the aforementioned Westinghouse RAI response.

This response is PLANT-SPECIFIC for VEGP.

Associated VEGP COL Application Revision:

None