



April 30, 2009
NND-09-0107

U.S. Nuclear Regulatory Commission
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Washington, DC 20555

ATTN: Document Control Desk

Subject: Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3 Combined License Application (COLA) - Docket Numbers 52-027 and 52-028 Response to NRC Request for Additional Information (RAI) Letter No. 038

Reference: Letter from Brian Hughes (NRC) to Alfred M. Paglia (SCE&G), Request for Additional Information Letter No. 038 Related to SRP Section 3.7.1 for the Virgil C. Summer Nuclear Station Units 2 and 3 Combined License Application, dated March 24, 2009.

The enclosure to this letter provides the South Carolina Electric & Gas Company (SCE&G) response to the RAI items included in the above referenced letter. The enclosure also identifies any associated changes that will be incorporated in a future revision of the VCSNS Units 2 and 3 COLA.

Should you have any questions, please contact Mr. Al Paglia by telephone at (803) 345-4191, or by email at apaglia@scana.com.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 30th day of April, 2009.

Sincerely,

Ronald B. Clary
General Manager
New Nuclear Deployment

AMM/RBC/am

Enclosure

c (w/o attachment):

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NRC RAI Letter No. 038 Dated March 24, 2009

SRP Section: 3.7.1 – Seismic Design Parameters

Question from Structural Engineering Branch 1 (AP1000/EPR Projects) (SEB1)

NRC RAI Number: 03.07.01-1

Summer FSAR Section 3.7.1.1.1 states that the site-specific GMRS exceeds the AP1000 CSDRS (in both the horizontal and vertical directions) in the high-frequency (HF) range. To address these exceedances, the applicant states that HF seismic input is generally considered to be non-damaging and incorporates-by-reference DCD Chapter 3, Appendix 3I, as the supporting technical basis.

DCD Chapter 3, Appendix 3I, states that fixed based analysis was used for modeling HF building response and DCD Chapter 3, Appendix 3G, states that fixed based analysis is adequate for sites with shear wave velocities in excess of 8,000 fps.

Summer FSAR Section 3.7.1.1.1, states that the bedrock at the basemat elevation has a shear wave velocity that exceeds 9,000 feet per second (fps) and as a result, rock motion is not modified to account for effects of local soft rock or soil profiles on seismic wave propagation. However, FSAR Figure 2.5.4-224, indicates significant lateral variability (~25%) in shear wave velocity at the Unit 2 NI basemat elevation (360 feet). Measured shear wave velocities across the NI range from approximately 4,000 fps to 10,000 fps.

Based on the above observations (i.e., lateral variation in shear wave velocity and shear wave velocities less than 8,000 fps), the staff requests the applicant to substantiate that the technical basis referenced in DCD Chapter 3, Appendix 3I, is applicable to the Unit 2 site condition.

VCSNS RESPONSE:

A discussion of the lateral variability of shear wave velocity indicated on FSAR Figure 2.5.4-224 and the rationale for considering the VCSNS site a hard rock site are presented in the response to RAI 02.05.02-18. The response to RAI 02.05.02-18 also provides the information that substantiates why the technical basis referenced in DCD Chapter 3, Appendix 3I, is applicable to the Unit 2 site condition.

This response is PLANT SPECIFIC.

ASSOCIATED VCSNS COLA REVISIONS:

No COLA changes have been identified as a result of this response.

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ASSOCIATED ATTACHMENTS:

None