



April 28, 2009  
NND-09-0102

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. 035

Reference: Letter from Brian Hughes (NRC) to Alfred M. Paglia (SCE&G), Request for Additional Information Letter No. 035 Related to SRP Section 3.7.2 for the Virgil C. Summer Nuclear Station Units 2 and 3 Combined License Application, dated February 25, 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](mailto:apaglia@scana.com).

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

Executed on this 28<sup>th</sup> day of April, 2009.

Sincerely,

Ronald B. Clary  
General Manager  
New Nuclear Deployment

AMM/RBC/am

Enclosure

c (with enclosure):

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**NRC RAI Letter No. 035 Dated February 25, 2009**

**SRP Section: 3.7.2 – Seismic System Analysis**

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

**NRC RAI Number: 03.07.02-1**

Summer FSAR Section 3.7.2.8.1 states that the annex building is designed so that it will not collapse and damage the safety related building and shield building. The site GMRS is defined at the foundation elevation of the NI for Units 2 and 3 (FSAR Figures 2.0.201 and 202). Site elevations (FSAR Figures 2.5.4-220 and 222) indicate that there will be structural fill material beneath the annex building. The structure fill material, which is approximately 40 feet deep, will likely amplify the seismic ground motion and affect surface founded structures.

Please provide an estimate of the peak ground acceleration at the base of the annex building. Also, please state whether or not the DCD seismic analysis is bounding.

**VCSNS RESPONSE:**

The backfill material will be similar to one of the soil cases (750'/sec shear wave velocity over hard rock) used in the AP1000 Annex Building seismic analyses. The hard rock high frequency (HRHF) spectra as discussed in Appendix 3I of the AP1000 DCD envelopes the site spectra as shown in FSAR Figures 2.0-201 and 202. Therefore, the AP1000 Annex Building seismic analyses will be bounding.

This response is PLANT SPECIFIC.

**ASSOCIATED VCSNS COLA REVISIONS:**

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

**ASSOCIATED ATTACHMENTS:**

None