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Vice President  
New Nuclear Deployment

July 2, 2010  
NND-10-0261

U.S. Nuclear Regulatory Commission  
Document Control Desk  
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) 03.07.01-2 on Waterproofing

Reference: 1. Letter from Chandu P. Patel (NRC) to Alfred M. Paglia (SCE&G), Request for Additional Information Letter No. 053 Related to SRP Section 02.05.04 for the Virgil C. Summer Nuclear Station Units 2 and 3 Combined License Application, dated June 26, 2009.

2. Letter from Ronald B. Clary (SCE&G) to Document Control Desk (NRC), Response to NRC Request for Additional Information (RAI) Letter No. 053, dated July 23, 2009.

The enclosure to this letter provides the South Carolina Electric & Gas Company (SCE&G) response to RAI item 03.07.01-2. SCE&G is providing this response to address a new COL information item on waterproofing identified during the AP1000 Design Control Document (DCD) NRC review. The enclosure also identifies associated FSAR changes that will be incorporated in Revision 3 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).

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

Executed on this 2nd day of July, 2010.

Sincerely,



Ronald B. Clary  
Vice President  
New Nuclear Deployment

AMM/RBC/am

Enclosure

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**NRC RAI 03.07.01-2**

**VCSNS RESPONSE:**

In the course of the Design Control Document (DCD) review, Westinghouse responded to RAI-TR85-SEB1-35 (via letter DCP\_NRC\_002567 as submitted July 21, 2009) and included a new DCD Combined License Information Subsection 2.5.4.6.12 addressing waterproofing. This item states:

- 2.5.4.6.12     Waterproofing System - The Combined License applicant will provide a waterproofing system used for the below grade, exterior walls exposed to flood and groundwater under seismic Category I structures. Waterproofing membrane should be placed immediately beneath the upper Mud Mat, and on top of the lower Mud Mat. The performance requirements to be met by the COL applicant for the waterproofing system are described in subsection 3.4.1.1.1.1.

SCE&G is using a sheet type waterproofing material for both the horizontal and vertical surfaces under seismic Category I structures. The material will be qualified by test, with commercial grade dedication and lab testing to achieve a minimum coefficient of friction (COF) of 0.70. This information is being added to Subsection 3.8.5.1 of the VCSNS Units 2 and 3 FSAR and identified as responding to a COL information item.

The FSAR will also be revised to incorporate the above DCD change and the additional corresponding plant-specific information to address the new COL information item. These changes will be incorporated in the future Revision 3 of the VCSNS Units 2 and 3 COLA.

While some portions of these changes reflecting DCD information are STANDARD, other portions reflecting site-specific information to address the revised site parameters are PLANT-SPECIFIC.

**ASSOCIATED VCSNS COLA REVISIONS:**

VCSNS COLA Part 2 will be revised in Revision 3 as indicated below. Insertions are shown in green-underlined text.

1. COLA Part 2, FSAR Chapter 1, Section 1.8, Table 1.8-202, will be revised to add the following new line item for the "Waterproofing System" to read:

2.5-17      Waterproofing System      2.5.4.6.12      2.5.7      A

2. COLA Part 2, FSAR Chapter 2, Section 2.5, will be revised to add the following new Subsection 2.5.7 to read:

2.5.7      Waterproofing System

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VCS COL 2.5-17      This COL item is addressed in Subsection 3.8.5.1.

3. COLA Part 2, FSAR Chapter 3, Subsection 3.8.5.1, will be revised to add a new LMA of VCS COL 2.5-17 following the existing statement to read:

VCS COL 2.5-17      A sheet type waterproofing material will be used for both the horizontal and vertical surfaces under seismic Category I structures. The material will be qualified by test, with commercial grade dedication and lab testing to achieve a minimum coefficient of friction (COF) of 0.70.

**ASSOCIATED ATTACHMENTS:**

None