



February 3, 2017
NND-17-0094
10 CFR 50.90

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3
Combined License Nos. NPF-93
Docket Nos. 52-027

Subject: Preliminary Amendment Request (PAR) 13-24: Containment Internal
Floor Module Connections

- Reference:
1. South Carolina Electric & Gas Company (SCE&G) LAR 13-24 R1: Revision 1 to Request for License Amendment: Containment Internal Floor Module Connections, dated August 8, 2016 (NND-16-0237) (ML16221A649)
 2. South Carolina Electric & Gas Company (SCE&G) LAR 13-24 R1 S1: Supplement 1 to Revision 1 of Request for License Amendment: Containment Internal Floor Module Connections, dated November 9, 2016 (NND-16-0476) (ML16314E554)

Pursuant to 10 CFR 52.98(c) and in accordance with the provisions of 10 CFR 50.90, South Carolina Electric & Gas Company (SCE&G), acting on behalf of itself and the South Carolina Public Service Authority (Santee Cooper), submitted a revised request for license amendment to the Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3 combined licenses (COLs) numbers NPF-93 and NPF-94, respectively. The requested amendment (LAR 13-24 R1) was submitted (Reference 1) to depart from Tier 2* and associated Tier 2 information in the Updated Final Safety Analysis Report (UFSAR) (which includes the plant-specific DCD Tier 2 information) to revise details that describe the connections between floor modules and structural wall modules in the containment internal structures.

SCE&G is submitting this Preliminary Amendment Request, PAR 13-24, to minimize further construction delays for Unit 2 during the NRC's evaluation of the related license amendment request. The determination of whether the NRC has any objection to SCE&G proceeding with construction based on the proposed plant licensing basis changes identified in the LAR is requested on or before February 10, 2017. Delayed determination regarding this PAR could result in a delay in the construction of VCSNS Unit 2 Containment Building.

A description of the proposed change and the reason for the change are contained in Enclosure 1 to this letter. This PAR has been developed in accordance with guidance provided in Interim Staff Guidance on Changes during Construction Under 10 CFR Part 52, COL-ISG-25 [ML15058A377], and corresponds accurately and technically with the above-mentioned LAR 13-24 R1. Section 7 of the Enclosure identifies and details the scope of the "no objection" sought in this PAR.

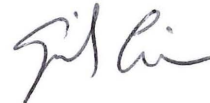
Should you have any questions, please contact Mr. Nicholas R. Kellenberger by telephone at (803) 941-9834, or by email at nicholas.r.kellenberger@scana.com.

This letter contains no regulatory commitments.

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

Executed on this 3rd day of February, 2017.

Sincerely,



April R. Rice
Manager
New Nuclear Licensing

MHK/ARR/mhk

Enclosure 1: Virgil C. Summer Nuclear Station Unit 2: Preliminary Amendment
Request Regarding Containment Internal Floor Module
Connections (PAR 13-24)

Copy with all Enclosures:

Billy Gleaves
Ruth Reyes
Chandu Patel
Paul Kallan
Tom Fredette
Tomy Nazario
Catherine Haney
Jim Reece
Stephen A. Byrne
Jeffrey B. Archie
Ronald A. Jones
Alvis J. Bynum
Kathryn M. Sutton
April Rice
Nick Kellenberger
Matt Kunkle
Mory Diané
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Dean Kersey
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Carl Churchman
Pat Young
Zach Harper
Brian McIntyre
Brian Bedford
Joseph Cole
Chuck Baucom
Lisa Alberghini
Curt Castell
Susan E. Jenkins
William M. Cherry
Rhonda O'Banion
Frederic Willis
DCRM-EDMS@SCANA.COM
VCSummerMail@westinghouse.com
vcsummer2&3project@westinghouse.com
VCSNNDCorrespondence@scana.com

South Carolina Electric and Gas Company

NND-17-0094

Enclosure 1

Virgil C. Summer Nuclear Station (VCSNS) Unit 2

Preliminary Amendment Request

Regarding:

Containment Internal Floor Module Connections

(PAR 13-24)

(This Enclosure consists of 4 pages, including this cover page.)

Pursuant to 10 CFR 52.98(c) and in accordance with 10 CFR 50.90, South Carolina Electric and Gas Company (SCE&G) requested an amendment to Combined License (COL) Numbers NPF-93 and NPF-94, for Virgil C. Summer Nuclear Station (VCSNS) Unit 2 and 3, respectively. Construction of several VCSNS Unit 2 seismic Category I containment internal floors at approximate design elevations of 105'-2" and 107'-2" is subject to the changes proposed in LAR 13-24 R1 and LAR13-24 R1 S1 and is currently on hold. Delayed determination regarding this Preliminary Amendment Request (PAR) will result in a delay of the construction completion of VCSNS Unit 2 structures. Accordingly, SCE&G requests the determination of whether the NRC has any objection to proceeding with construction of VCSNS Unit 2 seismic Category I containment internal floor module connections subject to the changes proposed in LAR 13-24 R1 and LAR 13-24 R1 S1.

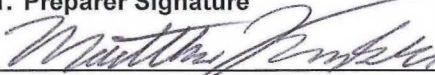
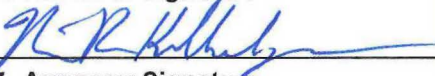
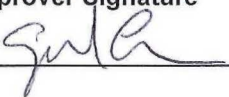
PAR Number PAR 13-24	Station Name VCSNS	Unit Number <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3	PAR Date 2/3/17
1. NRC PAR Notification Requested Date (see Block 7 for basis) <u>February 10, 2017</u>			
2. License Amendment Request References (as applicable)			
<input checked="" type="checkbox"/> LAR submittal date and SCE&G Correspondence Number: August 8, 2016 / NND-16-0237 and November 9, 2016 / NND-16-0476 <input type="checkbox"/> Expected LAR submittal date: _____			
3. Brief Description of Proposed Change			
<p>Updated Final Safety Analysis Report (UFSAR) Subsection 3.8.3 provides a description of the floor modules and the connection between floor modules and structural wall modules in the containment internal structures. The design of the floor modules is shown in UFSAR Figure 3.8.3-3. The connection is shown in UFSAR Figure 3.8.3-17. The text in UFSAR Subsections 3.8.3.1.3 and 3.8.3.5.8.1 references Figure 3.8.3-17. The text in UFSAR Subsection 3.8.3.1.4 describes the design elements in the floor modules and references UFSAR Figure 3.8.3-3. These connections join the floor modules that make up the maintenance floor at elevation 107'-2" and the operating deck at elevation 135'-3" to the structural wall modules. The text references are revised to clarify that the detailed connection design in other locations varies from that shown.</p> <p>The text references are expanded to identify the design elements for which the design details vary in these other locations. The text is revised to add discussion of controlling design requirements for the connection variations. UFSAR Figure 3.8.3-17 is revised based on changes to the detail design of the connections and to add notes about the design variations. UFSAR Figure 3.8.3-3 is revised to show shear studs on top of the bottom plate of the floor module. These changes are for the connection design and do not change the structural wall module design for the three critical sections identified in the first paragraph of UFSAR Subsection 3.8.3.5.8.1.</p> <p>Additional details are provided in the referenced LAR.</p>			

PAR Number PAR 13-24	Station Name VCSNS	Unit Number <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3	PAR Date 2/3/17
4. Reason for License Amendment Request <p>Changes are proposed to the description of the floor to wall connection in UFSAR Subsection 3.8.3 and shown in UFSAR Figure 3.8.3-3 and Figure 3.8.3-17. Some of the information associated with this connection design is designated as Tier 2* information.</p> <p>UFSAR Figure 3.8.3-17 includes floor module design detail including size of structural shapes and reinforcement bars. The proposed change to the licensing basis identifies variations for these floor module details. A key feature of the connection design is that structural shapes of the connection provide a direct load path from the floor to the wall through welds or mechanical connectors. Where reinforcement is included in the connection it is directly connected to the wall module. The floor module and connection design are required to satisfy the applicable portions of American Concrete Institute (ACI) 349 and American Institute of Steel Construction (AISC) N690.</p> <p>The description of the floor module and UFSAR Figures 3.8.3-3 and 3.8.3-17 are revised to identify that shear studs are welded to the bottom steel plate of the floor module. The shear studs are provided for the steel and concrete to act as a composite structure and to transfer load from the steel plate on the bottom through the concrete to the reinforcement bars that anchor into the wall.</p>			
5. Is an Exemption Request Required? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, Briefly Describe Reason for Exemption. Not Applicable			
6. Identify Applicable Precedents <p>Southern Nuclear Operating Company (SNC) originally submitted an identical request PAR 15-012 [ML16307A027] for Vogtle Unit 3 on November 2, 2016. The NRC Staff reviewed the scope of PAR 15-012 and found that it was consistent with the changes from the current licensing basis as requested in SNC's LAR 15-012 as revised and supplemented. Therefore, the NRC had no objection to SNC proceeding with the construction of the proposed plant changes identified in Section 7 of the Enclosure to PAR 15-012, pending the outcome of the NRC's detailed technical review of SNC's LAR 15-012 as revised and supplemented. The Notice of No Objection was provided to SNC on December 12, 2016 [ML16344A378].</p> <p>The scope of this request, detailed in Section 7 below, is identical in content to the scope of SNC's PAR 15-012.</p>			
7. Impact of Change on Installation and Testing Schedules <p>SCE&G's requested date for approval of this license amendment as identified in the referenced LAR is March 3, 2017. This requested approval date will be updated in a forthcoming revision to the LAR. This date is based upon placing concrete within the containment up to the design elevation of approximately 107'-2". However, the impacted containment internal floor module connections must be set in place prior to this requested approval date for the LAR.</p> <p>A delayed determination regarding this PAR may result in delay in the construction completion of VCSNS Unit 2 structures. As such, this PAR requests a "no objection" finding related to this LAR by the date identified in Block 1 above (or sooner if reasonably achievable) to allow for appropriate notifications and release of further containment internal construction activities dependent on placing these modules and making the appropriate connections to allow construction to continue.</p>			

NND-17-0094

Enclosure 1

PAR 13-24: Containment Internal Floor Module Connections

PAR Number PAR 13-24	Station Name VCSNS	Unit Number <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3	PAR Date 2/3/17
<p>This "no objection" finding would be specifically applicable to the following VCSNS Unit 2 containment internal module floor connections at a design elevation of approximately 105'-2":</p> <ul style="list-style-type: none"> • Install CA35 – Steel Floor (PXS B Accum Room 11207 Ceiling) • Install CA37 – Steel Floor (PXS A Accum Room 11206 Ceiling) <p>This "no objection" finding would also be specifically applicable to the following VCSNS Unit 2 containment internal module floor connections at a design elevation of approximately 107'-2":</p> <ul style="list-style-type: none"> • Install CA32 – Steel Floor (CVS Room Pipe Tunnel 11209 Room Ceiling) • Install CA33 – Steel Floor (CVS Room 11209 CVS Room Ceiling) • Install CA34 – Steel Floor (PXS B Valve Room 11207 Ceiling) • Install CA36 – Steel Floor (RNS Valve Room 11208 Ceiling) <p>UFSAR Nuclear Island General Arrangement Plan Figure 1.2-6 identifies the location of the above-mentioned rooms by number. These rooms generally comprise the floor of Room 11300 as shown on UFSAR Figure 1.2-7.</p> <p>Specifically, SCE&G requests a "no objection" finding for construction of these identified floor module connections inside the VCSNS Unit 2 containment structure (not including the pouring of concrete) in accordance with the design changes proposed in the revised UFSAR description in LAR 13-24 R1 and LAR 13-24 R1 S1.</p> <p>A "no objection" finding for the above activities would release the associated VCSNS Unit 2 construction holds for these floors related to this construction activity.</p>			
<p>8. Impact of Change on ITAAC</p> <p>None</p>			
<p>9. Additional Information</p> <p>None</p>			
<p>10. Preparer Name (Print) Matthew Runkle</p>	<p>11. Preparer Signature </p>	<p>12. Date 2-3-17</p>	
<p>13. Reviewer Name (Print) Nick Kellenberger</p>	<p>14. Reviewer Signature </p>	<p>15. Date 2-3-17</p>	
<p>16. Approver Name (Print) April R Rice</p>	<p>17. Approver Signature </p>	<p>18. Date 2-3-17</p>	