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Docket No.: 52-025
52-026

ND-14-0574
10 CFR 50.90

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3 and 4
Preliminary Amendment Request (PAR):
Auxiliary Building Structural Floor Details (PAR-14-003)

Ladies and Gentlemen:

The U.S. Nuclear Regulatory Commission (NRC) issued the Vogtle Electric Generating Plant (VEGP) Unit 3 combined license (COL) (License No. NPF-91) to Southern Nuclear Operating Company (SNC) on February 10, 2012. By letter dated April 4, 2014, SNC submitted a request for a license amendment (LAR-14-003, SNC correspondence ND-14-0513) to revise VEGP Units 3 and 4 Updated Final Safety Analysis Report (UFSAR) descriptions of the auxiliary building structural floor details.

SNC is submitting a Preliminary Amendment Request, PAR-14-003, to avoid possible construction delays for both Units 3 and 4 during the NRC's evaluation of the related license amendment request (LAR). The determination of whether the NRC has any objection to SNC proceeding with the proposed plant licensing basis changes identified in the LAR is needed prior to April 15, 2014, according to the current schedule. Delayed determination regarding this PAR could result in a delay in the installation of the VEGP Units 3 and 4 auxiliary building floors and related wall connections in the auxiliary building and shield building.

A description of the requested 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 the most recent revision to the Interim Staff Guidance on Changes during Construction Under 10 CFR Part 52, COL-ISG-25 [ML13045A125], and corresponds accurately and technically with the above-mentioned LAR-14-003. The technical scope of this PAR is consistent with the technical scope of the submitted LAR. Section 7 of Enclosure 1 identifies the scope of the "no objection" sought in this PAR.

This letter does not contain any NRC commitments. Should you have any questions, please contact Mr. Brian Meadors at (205) 992-7331.

Ms. Amy G. Aughtman states that: she is a Licensing Manager of Southern Nuclear Operating Company; she is authorized to execute this oath on behalf of Southern Nuclear Operating Company; and to the best of her knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

Amy G. Aughtman

A. G. Aughtman

AGA/ERG/kms

Sworn to and subscribed before me this 8th day of April 2014

Notary Public: Kristin Marie Seibert

My commission expires: August 16, 2016



Enclosure 1: Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Preliminary Amendment
Request Regarding Auxiliary Building Structural Floor Details (PAR-14-003)

cc:

Southern Nuclear Operating Company/ Georgia Power Company

Mr. S. E. Kuczynski (w/o enclosures)
Mr. J. A. Miller
Mr. D. A. Bost (w/o enclosures)
Mr. B. L. Ivey
Mr. M. D. Rauckhorst (w/o enclosures)
Mr. J. T. Gasser (w/o enclosures)
Mr. D. H. Jones (w/o enclosures)
Mr. J. R. Johnson (w/o enclosures)
Mr. T. E. Tynan
Mr. D. M. Lloyd
Mr. B.H. Whitley
Mr. C. R. Pierce
Mr. D. L. Fulton
Mr. C. H. Mahan
Mr. S. Thomason
Ms. A. G. Aughtman
Mr. W. A. Sparkman
Mr. C. B. Meadors
Document Services RTYPE: VND.LI.L00
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Nuclear Regulatory Commission

Mr. V. M. McCree (w/o enclosures)
Mr. M. Delligatti (w/o enclosures)
Mr. L. Burkhardt (w/o enclosures)
Mr. D. H. Jaffe
Mr. R. G. Joshi
Ms. D. L. McGovern
Mr. B. M. Bovol
Ms. M. A. Sutton
Mr. M. E. Ernestes
Mr. G. Khouri
Mr. L. M. Cain
Mr. J. D. Fuller
Mr. C. B. Abbott
Mr. C. Huffman
Mr. A. J. Minarik

State of Georgia

Mr. J. H. Turner

Oglethorpe Power Corporation

Mr. M. W. Price
Mr. K. T. Haynes

Municipal Electric Authority of Georgia

Mr. J. E. Fuller
Mr. S. M. Jackson

Dalton Utilities

Mr. D. Cope

CB&I

Mr. J. Simmons (w/o enclosures)
Ms. K. Stoner (w/o enclosures)
Mr. C. A. Castell

Westinghouse Electric Company, LLC

Mr. T. C. Geer (w/o enclosures)
Mr. S. W. Gray (w/o enclosures)
Mr. F. G. Gill
Mr. P. A. Russ
Mr. G. F. Couture
Mr. M. Y. Shaqqo

Other

Mr. R. W. Prunty, Bechtel Power Corporation
Ms. K. K. Patterson, Tetra Tech NUS, Inc.
Dr. W. R. Jacobs, Jr., Ph.D., GDS Associates, Inc.
Mr. S. Roetger, Georgia Public Service Commission
Ms. S. W. Kernizan, Georgia Public Service Commission
Mr. K. C. Greene, Troutman Sanders
Mr. S. Blanton, Balch Bingham
Ms. A. Rice, South Carolina Electric & Gas Company
Mr. D. Kersey, South Carolina Electric & Gas Company
Mr. B. Kitchen, Duke Energy
Mr. S. Franzone, Florida Power & Light

Southern Nuclear Operating Company

ND-14-0574

Enclosure 1

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

Preliminary Amendment Request

Regarding

Auxiliary Building Structural Floor Details

(PAR-14-003)

Pursuant to 10 CFR 50.90, Southern Nuclear Operating Company (SNC) submitted a license amendment request (LAR) to change the Vogtle Electric Generating Plant (VEGP), Units 3 and 4, licensing basis documents associated with Combined License Nos. NPF-91 and NPF-92, respectively. Accordingly, SNC requests the determination of whether the NRC has any objection to proceeding with construction of floors in the VEGP Units 3 and 4 Auxiliary Building up to the Elevation 100' including the related wall connections in the auxiliary building and shield building as identified in the Preliminary Amendment Request (PAR) provided below to be provided by the date shown below.

PAR Request Number: SNC PAR-14-003	Station Name: VEGP	Unit Number(s): <input checked="" type="checkbox"/> 3 <input checked="" type="checkbox"/> 4	PAR Request Date: April 8, 2014
1. NRC PAR Notification Requested Date (see Block 7 for basis): April 15, 2014			
2. License Amendment Request References (as applicable): <input checked="" type="checkbox"/> LAR submittal date and SNC Correspondence Number: April 4, 2014 / ND-14-0513 <input type="checkbox"/> Expected LAR submittal date: _____			
3. Brief Description of Proposed Change: <p>This proposed change would revise the licensing basis, particularly the Combined Licenses' Updated Final Safety Analysis Report (UFSAR), descriptions and figures related to the structural design of the floors in the auxiliary building.</p> <p>The UFSAR text and figures changes identify how the floors other than the critical sections vary from the detail design shown on the figures. Notes are added to the figures to describe the specific variations in the detail design. The variations in the detail design, which include information such as size and spacing of reinforcement in the floors and the spans of the floors, are the result of variations in the geometry of the floors and variations in the loads for which the floors are designed. The floor designs with the design variations satisfy applicable design code requirements.</p> <p>Changes to Figure 3H.5-8 showing the floor design of concrete placed on precast panels are proposed to change the representation of the reinforcement in the precast panel and the cast-in-place panel. This figure is also changed to incorporate the requirements for development and anchoring of headed reinforcement from ACI 318-11, Section 12.6, which were previously incorporated into the UFSAR via COL license amendments. The representation of the beam supports and panel supports is changed to show the use of deformed wire anchors instead of headed studs for the embedment in the concrete.</p>			
4. Reason for License Amendment Request: <p>These changes are primarily for constructability. The floors of the auxiliary building are constructed with concrete placed on metal decking set on structural steel beams. Floors are also constructed with cast-in-place concrete over precast concrete panels.</p> <p>The proposed changes revise the descriptions of the design of the auxiliary building floors in UFSAR Subsection 3H.5 and the associated figures to change the descriptions of the floor structures to allow detail design variations in locations other than the critical sections. Design of the critical sections does not vary from the details provided in the UFSAR figures. The changes in the description identify and describe differences between the critical section design and the design of similar floors in other locations.</p>			

5. Is Exemption Request Required? ☐ Yes ☒ No

If Yes, Briefly Describe the Reason for the Exemption. Not Applicable

6. Identify Applicable Precedents: As described in Section 2 of the amendment request, the proposed changes would allow use of headed reinforcement (also referred to as T-headed anchors) for development of the longitudinal reinforcement in subject floors. The amendment proposes to modify UFSAR Subsections 3H.5.2 and 3H.5.3, as well as UFSAR Figures 3H.5-6 and 3H.5-8, to allow headed reinforcement in these applications, in accordance with ACI 318-11, Section 12.6. The UFSAR was previously updated to apply the requirements of ACI 318-11, Section 12.6 to the design and construction of T-headed anchors used to develop reinforcement in other applications on the nuclear island. These requirements for development of headed reinforcement were previously approved and incorporated into UFSAR Subsections 3.8.3.5, 3.8.4.4.1, and 3.8.4.5.1 of the licensing basis. See SNC VEGP COL Amendments 5 and 9 (Adams Accession Numbers ML13056A437 and ML13122A068, respectively).

7. Impact of Change on Installation and Testing Schedules:

SNC's need date for approval of this license amendment as identified in the referenced LAR is July 1, 2014. This date is based upon the scheduled construction activity for pouring the cast-in-place portion of the composite floors and CA20 concrete fill. However, several related activities are scheduled before that date to prepare for those concrete pours, and SNC would like to continue those preparations while the LAR is under review. As such, this PAR requests a "no objections" finding related to this license amendment by the date in item 1 above to allow for appropriate notifications and "hold" releases to allow construction to continue.

Specifically, SNC requests a "no objections" finding for the activities addressed in the revised UFSAR descriptions, which include the following activities:

- I. For COMPOSITE FLOORS (pre-cast panels with cast-in-place slab above, Figure 3H.5-8), SNC requests to proceed with concrete placement for the impacted walls (including the examples listed below). This allows construction of the shield building and inside containment to proceed. This also allows for auxiliary building wall construction (but not the floors themselves). These walls can be identified by column lines on the identified sheet number of UFSAR Figure 3.7.2-12 and room numbers can be identified on the general arrangement UFSAR figures such as Figure 1.2-4.
 - Shield building wall under the containment vessel from elevation 78'-6" to 82'-6" – see UFSAR Figure 3.7.2-12, Sheets 1 and 2.
 - Auxiliary building interior wall along column line 2 – see UFSAR Figure 3.7.2-12, various sheets.
 - Auxiliary building interior walls surrounding the delay bed/ guard bed compartment (room 12153) – see UFSAR Figure 3.7.2-12, Sheet 1 and Figure 1.2-4.
 - Auxiliary building interior wall dividing gaseous waste system (WGS) equipment room (room 12155) from the liquid waste system (WLS) equipment room (room 12156) – see UFSAR Figure 3.7.2-12, Sheet 1 and Figure 1.2-4.
 - Auxiliary building interior wall, the lower portions of which divide WLS equipment room (room 12156) from the degasifier discharge pump room (room 12158) – see UFSAR Figure 3.7.2-12, Sheets 1 and 2, and Figures 1.2-4 (showing rooms 12156 and 12158), 1.2-5 and 1.2-6.
 - Auxiliary building interior wall at Column Line 7.3, the lower portions of which divide WLS equipment room (room 12156) and the degasifier discharge pump room (room 12158)

from corridor (room 12111) and spare room (room 12112) – see UFSAR Figure 3.7.2-12, various sheets, and Figures 1.2-4 (showing rooms 12156 and 12158, 12111 and 12112, respectively) through 1.2-10.

- Auxiliary building exterior wall along Column Line 1 – see UFSAR Figure 3.7.2-12, various sheets
 - Auxiliary building exterior wall along Column Line N – see UFSAR Figure 3.7.2-12, various sheets.
 - Auxiliary building exterior wall along Column Line I – see UFSAR Figure 3.7.2-12, various sheets
- II. For SLAB ON METAL DECKING FLOORS (floors above beams, Figure 3H.5-6), SNC requests to proceed with concrete placement for auxiliary building floor slabs above metal decking.
- III. For OTHER RELATED ACTIVITIES, SNC requests to proceed with:
- installation of embedded mechanical connectors and associated anchorage supporting composite floors;
 - installation of pre-cast panels and installation of reinforcement for the cast-in-place portion of composite floors; and
 - installation of structural steel and supports for slab on metal decking floors.

A “no objections” finding for the above activities would release several current Unit 3 construction holds and prevent the imminent need for similar Unit 4 construction holds.

8. Impact of Change on ITAAC: None

9. Additional Information: None