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Docket Nos.: 52-025
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ND-12-1339
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
Request for License Amendment:
Structural Modules Shear Stud Size and Spacing (LAR-12-001S) - Supplement

Ladies and Gentlemen:

The U.S. Nuclear Regulatory Commission (NRC) issued the Vogtle Electric Generating Plant (VEGP) Units 3 and 4 combined licenses (COLs) (License Nos. NPF-91 and NPF-92, respectively) to Southern Nuclear Operating Company (SNC) on February 10, 2012. By letter dated March 12, 2012, SNC requested an amendment to the COLs for VEGP Units 3 and 4, in accordance with the provisions of 10 CFR 50.90. The proposed amendment would revise the structural wall module shear stud size and spacing requirements presented in the Updated Final Safety Analysis Report (UFSAR). This letter supplements the March 12, 2012 License Amendment Request (LAR) 12-001 by providing a revised proposed change as discussed in the response to a request for additional information (RAI) related to this LAR.

In the response to NRC's RAI Letter No. 2 related to LAR-12-001, dated June 6, 2012, SNC notified the NRC that a supplement to the LAR was being developed to provide clarification to address variations in the location of structural module internal shear studs and to incorporate the LAR revisions identified in the RAI response. SNC has subsequently determined that it would be more appropriate at the current time to request NRC approval of the original March 12, 2012 request, and to request approval of other changes associated with other aspects of structural wall modules in a future LAR. Accordingly, SNC requests the NRC to continue its review of the structural wall module shear stud size and spacing departure requested in LAR-12-001, as amended by the information provided in this letter.

The enclosure to this letter provides a change to the proposed note as discussed in response to RAI 03.08.03-1, Question 1, and the justification for acceptance of the revision to the proposed note change, including the technical basis for this supplemental change and the basis for determining the applicability of the determination of no significant hazards consideration provided in the March 12, 2012 LAR.

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NRD

The limiting construction activity associated with this license amendment is currently based on the installation of structural module CA20 in the Auxiliary Building. Although the installation of CA20 is not scheduled to be performed until early 2013, SNC requests staff approval of this license amendment by October 30, 2012, to allow additional time for the NRC staff to review the subsequent LAR related to other aspects of structural wall modules, as discussed above. SNC plans to submit that LAR to the NRC shortly after receipt of the license amendment requested by this LAR-12-001. LAR-12-001 will be implemented within 30 days of its approval.

In accordance with 10 CFR 50.91, SNC is notifying the State of Georgia of this LAR by transmitting a copy of this letter (including the enclosures) to the designated State Official.

Should you have any questions, please contact Mr. Wesley A. Sparkman at (205) 992-5061.

Mr. C. R. Pierce states that he is the Regulatory Affairs Director of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

C. R. Pierce

C. R. Pierce

CRP/NH/kms

Sworn to and subscribed before me this 9th day of August, 2012

Notary Public: Dana Marie Williams

My commission expires: 12/01/2014

NOTARY PUBLIC STATE OF ALABAMA AT LARGE
MY COMMISSION EXPIRES: Dec 1, 2014
BONDED THRU NOTARY PUBLIC UNDERWRITERS

Enclosure: Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Supplement to License Amendment Request Regarding Structural Modules Shear Stud Size and Spacing (LAR-12-001S)

cc: Southern Nuclear Operating Company

Mr. S. E. Kuczynski, Chairman, President & CEO (w/o enclosures)
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Mr. D. A. Bost, Chief Nuclear Officer (w/o enclosures)
Mr. B. L. Ivey, VP, Regulatory Affairs
Mr. M. D. Rauckhorst, VP, Vogtle 3 & 4 Construction (w/o enclosures)
Mr. D. H. Jones, VP, Regulatory Affairs, Vogtle 3 & 4
Mr. J. R. Johnson, VP, Operational Readiness, Vogtle 3 & 4 (w/o enclosures)
Mr. T. E. Tynan, Site VP, Vogtle 1 & 2
Mr. D. M. Lloyd, Project Support Director, Vogtle 3 & 4 (w/o enclosures)
Mr. C. R. Pierce, Regulatory Affairs Director
Mr. M. J. Ajluni, Nuclear Licensing Director
Mr. D. L. Fulton, Environmental Manager
Mr. C. H. Mahan, Site Licensing Manager, Vogtle 3 & 4
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Nuclear Regulatory Commission

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Mr. R. G. Joshi, Lead Project Manager of New Reactors
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Mr. R. F. Ziesing, Director, Vogtle AP1000 Operations and Consortium Licensing (w/o enclosures)

Mr. P. A. Russ, Director, AP1000 Global Licensing

Mr. R. A. DeLong, Director of U.S. & International Licensing (acting)

Mr. S. A. Bradley, Vogtle Project Licensing Manager

Mr. T. J. Ray, Manager, AP1000 COL Licensing Support

Southern Nuclear Operating Company

ND-12-1339

Enclosure

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

**Supplement to
License Amendment Request
Regarding
Structural Modules Shear Stud Size and Spacing
(LAR-12-001S)**

In the June 6, 2012 response to NRC's request for additional information (RAI) Letter No. 2 related to License Amendment Request (LAR) 12-001, SNC proposed to revise Tier 2* Note 2 of the Vogtle Electric Generating Station (VEGP) Units 3 and 4 Updated Final Safety Analysis Report (UFSAR) Figure 3.8.3-8, Sheet 1, to clarify that the indicated maximum shear stud spacing for carbon steel (CS) applies to American Society of Testing and Materials (ASTM) A36 plate material. This enclosure presents Note 2 as currently provided in the current licensing basis (i.e., VEGP Units 3 and 4 UFSAR), as originally proposed in LAR-12-001 dated March 12, 2012, and as discussed in the response to RAI No. 03.03.08-1, Question 2. Following the progression of proposed licensing basis changes to Note 2 directly below, this enclosure also provides the justification for acceptance of the clarification to the proposed note, including the technical basis for this supplemental change and the basis for determining the continued applicability of the determination of no significant hazards consideration provided in the March 12, 2012 LAR.

Current Licensing Basis:

2. WELDED STUDS SHALL BE SPACED AS FOLLOWS, UNLESS NOTED OTHERWISE:
 - $\frac{3}{4}$ " \varnothing x 6" @ 9.6" VERTICAL FOR CS
 - $\frac{3}{4}$ " \varnothing x 6" @ 10" HORIZONTAL FOR CS
 - $\frac{3}{4}$ " \varnothing x 6" @ 8" VERTICAL FOR SS
 - $\frac{3}{4}$ " \varnothing x 6" @ 10" HORIZONTAL FOR SS

Requested Departure per LAR-12-001, dated March 12, 2012:

2. WELDED STUDS SHALL BE SPACED AS FOLLOWS, UNLESS OTHERWISE REQUIRED BY THE SPECIFIC CODES AND STANDARDS INVOKED:
 - $\frac{3}{4}$ " \varnothing x 6" @ 10" VERTICAL FOR CS
 - $\frac{3}{4}$ " \varnothing x 6" @ 10" HORIZONTAL FOR CS
 - $\frac{5}{8}$ " \varnothing x 6" @ 6" VERTICAL FOR SS
 - $\frac{5}{8}$ " \varnothing x 6" @ 6" HORIZONTAL FOR SS

Supplemental Change per response to RAI 03.08.03-1, Question 2 (double underlining indicates supplemental change):

2. WELDED STUDS SHALL BE SPACED AS FOLLOWS, UNLESS OTHERWISE REQUIRED BY THE SPECIFIC CODES AND STANDARDS INVOKED:
 - $\frac{3}{4}$ " \varnothing x 6" @ 10" VERTICAL FOR A36 CS
 - $\frac{3}{4}$ " \varnothing x 6" @ 10" HORIZONTAL FOR A36 CS
 - $\frac{5}{8}$ " \varnothing x 6" @ 6" VERTICAL FOR SS
 - $\frac{5}{8}$ " \varnothing x 6" @ 6" HORIZONTAL FOR SS

Technical Basis for the Proposed Supplemental Change

As discussed in UFSAR Subsection 3.8.3.3.2, the minimum yield strength of materials for the faceplates of structural modules is 36 kilopounds per square inch (ksi). Accordingly, the carbon steel stud spacing in Note 2 of Figure 3.8.3-8, Sheet 1, represents the shear stud spacing for 36 ksi yield strength carbon steel, the minimum yield strength of ASTM A36 carbon steel.

Therefore, the proposed change to identify the specific carbon steel material (A36) for which the design size and spacing in Note 2 apply is only a clarification, which provides consistency with the minimum yield strength requirements in UFSAR Subsection 3.8.3.3.2. This additional change to Note 2 clarification will provide the necessary clarification that the shear stud size and spacing requirement for carbon steel applies specifically to A36 faceplate material.

No Significant Hazards Consideration Determination

The No Significant Hazards Consideration (NSHC) determination provided with LAR-12-001 evaluated the proposed change to the structural module stud size and spacing design requirements by increasing the carbon steel vertical stud spacing, decreasing the stainless steel stud diameter, and decreasing the stainless steel vertical and horizontal stud spacing in accordance with the current design basis. The NSHC determination concluded that the proposed changes to the design size and spacing requirements would not have an adverse impact on the ability of the structural modules to perform their design functions, and accordingly the changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92(c). The supplemental change addressed in this enclosure clarifies the information currently presented in UFSAR Figure 3.8.3-8, Sheet 1, Note 2, and carried forward in the change proposed in LAR-12-001, by identifying the specific carbon steel material (A36) for which the design size and spacing applies. This clarification is consistent with the minimum yield strength requirements in UFSAR Subsection 3.8.3.3.2 and the supporting current design basis, and accordingly does not materially change the information provided in the LAR-12-001 NSHC determination. Therefore, this clarification is consistent with the NSHC determination provided with LAR-12-001, and does not warrant a revised NSHC determination.

Conclusion

Based on the above information, SNC concludes that the proposed clarification to UFSAR Figure 3.8.3-8, Sheet 1, Note 2 is technically justified and consistent with the no significant hazards consideration determination provided in LAR-12-001, dated March 12, 2012.