Southern Nuclear
Operating Company, Inc.
42 Inverness Center Parkway
Birmingham, AL 35242

February 12, 2016

Docket Nos.: 52-025
52-026

ND-16-0179
10 CFR 50.90

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

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3 and 4
Supplement to Request for License Amendment:
Use of Localized Shoring for Composite Floors and Roof in the Auxiliary Building (LAR-15-020S1)

Ladies and Gentlemen:

Pursuant to 10 CFR 52.98(c) and in accordance with 10 CFR 50.90, by letter ND-15-2063, dated November 16, 2015 [ADAMS Accession Number ML15320A464], Southern Nuclear Operating Company (SNC), the licensee for Vogtle Electric Generating Plant (VEGP) Units 3 and 4, requested an amendment to Combined License (COL) Numbers NPF-91 and NPF-92, for VEGP Units 3 and 4, respectively. This license amendment request (LAR), LAR-15-020, proposed changes to the Updated Final Safety Analysis Report (UFSAR) in the form of departures from the incorporated plant-specific Design Control Document (DCD) Tier 2* information related to the construction methods used for the composite floors and roof of the auxiliary building. This letter supplements LAR-15-020 to address a comment provided by the NRC Staff regarding the extent of the use of shoring under steel beams supporting the steel deck until the wall supporting the beam is complete and clarification on how the load transfer will be made from the shoring to the completed support wall.

Enclosure 3 provides additional information relative to the comment that was provided by the NRC Staff on January 28, 2016.

The supplemental information in Enclosure 3 does not change the scope, or affect the Technical Evaluation, or alter the conclusions of the Significant Hazards Consideration Determination in LAR-15-020.

This letter contains no regulatory commitments. In accordance with 10 CFR 50.91, SNC is notifying the State of Georgia of this LAR by transmitting a copy of this letter and enclosures to the designated State Official.

Should you have any questions, please contact Ms. Paige Ridgway at (205) 992-7516.

Mr. Wesley A. Sparkman states that: he is the Regulatory Affairs Licensing Manager, Nuclear Development, of Southern Nuclear Operating Company; he 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

Wesley A. Sparkman

WAS/PTR/ljs

Sworn to and subscribed before me this 12th *day of* February, 2016

Notary Public: Lisa Myrick Spears

My commission expires: June 18, 2019

Enclosures: 1) and 2) (previously submitted with the original LAR, LAR-15-020, in SNC letter ND-15-2063)

3) Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Response to NRC Staff Comment Regarding the LAR-15-020 Review (LAR-15-020S1)

cc:

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Southern Nuclear Operating Company

ND-16-0179

Enclosure 3

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

Response to NRC Staff Comment
Regarding the LAR-15-020 Review (LAR-15-020S1)

(Enclosure 3 consists of 2 pages, including this cover page.)

The following is a comment provided by the NRC Staff regarding the review of Southern Nuclear Operating Company (SNC) License Amendment Request (LAR) 15-020, which was submitted by letter ND-15-2063 on November 16, 2015.

NRC Comment:

The applicant request the use of shoring to provide temporary support for openings in unshored construction addressed in Appendix 3H.5.2. Two specific conditions are presented in the LAR-15-020.

1. Shoring around openings where the steel deck has penetrations and the span of the steel deck is interrupted by the penetration/opening.
2. Shoring under steel beams supporting the steel deck until the wall to support the beams is completed.

The staff request more details on the extent of use of the second (2) type of shoring and clarification on how the load transfer will be made from the shoring to the support wall to be constructed.

SNC Response:

AP1000 auxiliary building steel composite beams are designed as unshored. The ultimate strength of a steel composite beam is the same regardless of whether or not it was constructed as “shored” or “unshored.” “Shored” versus “unshored” in the context of steel composite beams designed in accordance with the American Institute of Steel Construction (AISC) Standard, AISC N690, refers to temporary support for the beam at points along its length, such as at mid-span or at 1/3 points. It does not refer to temporary support for the beam at or near its end. The requested change specifically precludes shoring of steel composite beams along their length. Using temporary shoring to support the end of a beam due to construction sequencing, in lieu of supporting from a permanent beam seat or connection, has no impact on the behavior, stress level, or ultimate strength of the member.

Temporary shoring of the edge of a metal deck may be required at the face of a wall when a penetration or other opening interrupts the deck edge support angle. This temporary shoring has no impact on the behavior, stress level, or ultimate strength of the member.

Infrequently, construction sequencing may require that the beams and metal decking be set in place before portions of a supporting wall are completed. For example, when the installation of a penetration, opening, or embedment in a wall is not complete and the adjacent concrete is not yet placed. In that case, the metal decking or end of the beam may be supported by shoring, formwork, or other temporary support until the concrete is completed. Additionally, the concrete in the wall near embedded portions of a beam support or deck support may be incomplete and the concrete cover is less than that required by the embedment design when the beams, metal decking, or concrete are set in place. The permanent support may have temporary support or shoring until the remaining concrete in the wall is placed, set, and cured.

Once the wall is completed and the concrete is placed, set, and cured, the shoring or temporary support is removed under controlled conditions. The load is carried by the concrete and reinforcement in the floor, wall, and permanent supports when the shoring is removed. The stress state in the concrete, reinforcement, beams, and supports is no different than if the load was carried by the wall or permanent support without the use of shoring.