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ND-16-2114
10 CFR 50.90
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U.S. Nuclear Regulatory Commission
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Southern Nuclear Operating Company
Vogtle Electric Generating Plant Units 3 and 4
Supplement to Request for License Amendment and Exemption:
Nuclear Instrumentation System Excore Detector
Surface Material Inspection Clarification (LAR-16-010S2)

Ladies and Gentlemen:

Pursuant to 10 CFR 52.98(c) and in accordance with 10 CFR 50.90, by letter ND-16-0920, dated July 25, 2016 [ADAMS Accession Number ML16207A496], 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-16-010, proposed changes to COL Appendix C information (with corresponding changes to the associated plant-specific Tier 1 information) and involved associated Tier 2 information in the Updated Final Safety Analysis Report (UFSAR) related to the inspections of the excore (source range, intermediate range, and power range) detectors. By SNC letter ND-16-1779, dated September 23, 2016, SNC supplemented LAR-16-010 to address comments provided by the NRC Staff during the acceptance review of LAR-16-010. This letter supplements LAR-16-010 and LAR-16-010S1 to provide further clarity regarding the watertight stainless steel or titanium housings of the excore detectors.

Enclosure 5 provides revised responses to the comments that were provided by the NRC Staff on September 1, 2016. The original response to the NRC comments, included as Enclosure 4 of LAR-16-010S1, is replaced in its entirety by Enclosure 5 of this letter.

The supplemental information provided in Enclosure 5 does not impact the scope or conclusions of the Technical Evaluation, Regulatory Evaluation (including the Significant Hazards Consideration Determination), or Environmental Considerations of the original LAR or exemption request.

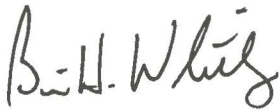
This letter contains no regulatory commitments. In accordance with 10 CFR 50.91, SNC is notifying the State of Georgia of this LAR supplement by transmitting a copy of this letter and enclosure to the designated State Official.

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

Mr. Brian H. Whitley states that: he is the Regulatory Affairs Director 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



Brian H. Whitley



BHW/PTR/ljs

Sworn to and subscribed before me this 13th day of October, 2016
Notary Public: Lisa Myrick Spears
My commission expires: June 18, 2019

- Enclosures: 1) - 3) (previously submitted with the original LAR, LAR-16-010, in SNC letter ND-16-0920)
- 4) (previously submitted with the LAR Supplement, LAR-16-010S1, in SNC letter ND-16-1779)
 - 5) Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Revised Response to NRC Staff Comments Regarding the LAR-16-010 Review (LAR-16-010S2)

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Southern Nuclear Operating Company

ND-16-2114

Enclosure 5

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

**Revised Response to NRC Staff Comments
Regarding the LAR-16-010 Review**

(LAR-16-010S2)

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

The following are comments provided by the NRC Staff regarding the review of Southern Nuclear Operating Company (SNC) License Amendment Request (LAR) 16-010, which was submitted by letter ND-16-0920 on July 25, 2016.

NRC Comments:

The staff's review of LAR-16-010 suggest that the proposed wording used throughout the LAR may be inconsistent.

The proposed wording for COL Appendix C, Table 2.2.3-4, and Plant-Specific Tier 1 Table 2.2.3-4 (i.e., tables of facility ITAAC) states that it is to be shown, "that the detector aluminum surface is encased in stainless steel or titanium," and the proposed wording for UFSAR Table 14.3-2 states that, "The aluminum surfaces of the excore detectors are encased in stainless steel or titanium." However, UFSAR Section 6.1.1.4 states more specifically that, "to avoid sump water contact with the excore detectors, they are enclosed in stainless steel or titanium housings."

The proposed ITAAC and UFSAR Table 14.3-2 wording does not explicitly state that the detector needs to be encased so that the aluminum surface is not in contact with sump water. Without containing the wording related to the sump water, it is not clear that the stainless steel or titanium encasement needs to be essentially leak tight. UFSAR Table 14.3-2 references back to UFSAR Section 6.1.1.4 that has this additional detail. However, the ITAAC itself does not reference back to UFSAR Section 6.1.1.4. In order to meet the safety analysis assumptions in UFSAR Section 6.1.1.4, the aluminum surface of the excore detectors cannot be exposed to the sump water.

- a. Provide a revised proposal for the ITAAC and UFSAR Table 14.3-2 wording to state that the aluminum surfaces of the excore detectors are encased in stainless steel or titanium so that they are not in contact with sump water.

In addition, the staff notes that proposed wording for COL Appendix C, Table 2.2.3-4 and Plant-Specific Tier 1 Table 2.2.3-4 (i.e., tables of facility ITAAC), as well as the wording in UFSAR Section 7.1.2.7.2, uses the terms, "source range, intermediate range, and power range detectors." However, UFSAR Section 6.1.14 and the proposed revision to UFSAR Table 14.3-2 use the term, "the excore detectors."

- b. Clarify within the proposed wording of COL Appendix C, Table 2.2.3-4, Plant-Specific Tier 1 Table 2.2.3-4, and UFSAR Table 14.3-2 that excore detectors describes the source, intermediate, and power range detectors.

SNC Revised Responses:

Response 1a: The excore (source range, intermediate range, and power range) detectors are encased in a watertight housing to prevent the aluminum surfaces of the excore detectors from coming into contact with sump water. UFSAR Table 14.3-2 references UFSAR Subsection 6.1.1.4, which states that "To avoid sump water contact with the excore detectors, they are enclosed in stainless steel or titanium housings." Therefore, to maintain consistency between the UFSAR Tier 2 information and the ITAAC acceptance criteria in COL Appendix C (and plant-specific Tier 1), UFSAR Table 14.3-2 "Design Basis Accident Analysis," and COL Appendix C (and associated plant-specific Tier 1) Table 2.2.3-4, "Inspections, Tests, Analyses, and Acceptance Criteria," are updated to specify that the stainless steel or titanium housings encasing the aluminum surfaces of the excore detectors are sealed watertight.

Response 1b: The proposed changes to COL Appendix C (and associated plant-specific Tier 1) Table 2.2.3-4 and UFSAR Table 14.3-2 are revised, as shown below, to clarify that the term “excove detectors” describes the source range, intermediate range and power range detectors and to clarify that the stainless steel or titanium housings are watertight.

**COL Appendix C (and associated Plant-Specific Tier 1) Table 2.2.3-4 (cont.)
Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
***	***	***
8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	xiv) Inspections will be conducted of the exposed surfaces of the <u>excove</u> (source range, intermediate range, and power range) detectors.	xiv) <u>A report exists and concludes that the aluminum</u> These surfaces are made of <u>the excove detectors are encased in a watertight</u> stainless steel or titanium <u>housing</u> .

**UFSAR Table 14.3-2
Design Basis Accident Analysis**

Reference	Design Feature	Value
***	***	***
Section 6.1.1.4	The exposed aluminum surfaces of the excove <u>(source range, intermediate range, and power range)</u> detectors are made of <u>encased in a watertight</u> stainless steel or titanium <u>housing</u> .	
***	***	***