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ND-18-0571
10 CFR 50.90

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:
Change to Battery Charger Output Amp Value in Technical Specification
SR 3.8.1.2 and the Surveillance Frequency for SR 3.8.7.6 (LAR-18-003S1)

Ladies and Gentlemen:

Pursuant to 10 CFR 52.98(c) and in accordance with 10 CFR 50.90, Southern Nuclear Operating Company (SNC) requested an amendment to the combined licenses (COLs) for Vogtle Electric Generating Plant (VEGP) Units 3 and 4 (License Numbers NPF-91 and NPF-92, respectively), by SNC letter ND-18-0025, dated January 31, 2018 [ADAMS Accession Number ML18031B181].

The requested amendment proposed to depart from approved COL Appendix A, Technical Specifications. The proposed changes would revise COL Appendix A, Surveillance Requirement (SR) 3.8.1.2, to identify that the required minimum ampere output for the battery chargers is 150 amps. Additionally, the proposed changes would revise COL Appendix A SR 3.8.7.6 to align the test frequency with the expected life of the AP1000 Class 1E batteries.

Enclosure 4 to this letter supplements LAR-18-003 to address a Request for Additional Information (RAI) from the NRC Staff, which was transmitted by electronic mail (email) on March 30, 2018 [ADAMS Accession Number ML18089A140], to support review of LAR-18-003. This supplement does not impact the scope, document markups, technical content, or conclusions of the Technical Evaluation, Significant Hazards Consideration Determination, or Environmental Considerations of the original License Amendment Request (LAR) provided in Enclosures 1, 2 and 3 of SNC letter ND-18-0025.

This letter contains no regulatory commitments. This letter has been reviewed and determined not to contain security related information.

SNC requests staff approval of the license amendment by July 31, 2018 to support Operator training updates. Delayed approval of this license amendment could result in a delay in Operator training updates and subsequent dependent construction activities. SNC expects to implement the proposed amendment within 30 days of approval of the requested changes.

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

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

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 25th of April 2018.

Respectfully submitted,



Brian H. Whitley
Director, Regulatory Affairs
Southern Nuclear Operating Company

Enclosures 1-3) (Previously submitted with the original LAR, LAR-18-003, in SNC letter ND-18-0025

Enclosure: 4) Vogtle Electric Generating Plant (VEGP) Units 3 and 4 – Response to NRC Request for Additional Information (RAI) Regarding LAR 18-003 (LAR-18-003S1)

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Southern Nuclear Operating Company

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Enclosure 4

Vogtle Electric Generating Plant (VEGP) Units 3 and 4

**Response to NRC Request for Additional Information (RAI) Regarding LAR 18-003
(LAR-18-003S1)**

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

ND-18-0571

Enclosure 4

Response to NRC Request for Additional Information (RAI) Regarding LAR 18-003
(LAR-18-003S1)

The following request for additional information (RAI) [ADAMS Accession Number ML18089A140] regarding the review of Southern Nuclear Operating Company (SNC) License Amendment Request (LAR) 18-003, submitted by SNC letter ND-18-0025, was provided by the NRC Staff on March 30, 2018.

Request for Additional Information (RAI):

10 CFR Part 50, Appendix A, General Design Criterion (GDC) 17, "Electric Power Systems," requires, in part, that the onsite electric power supplies, including the batteries, and the onsite electric distribution system, shall have sufficient independence, redundancy, and testability to perform their safety functions assuming a single failure.

Regulatory Guide (RG) 1.129, Revision (Rev.) 2, "Maintenance, Testing, and Replacement of Vented Lead-Acid Storage Batteries for Nuclear Power Plants," endorses Institute of Electrical and Electronics Engineers Standard (IEEE Std.) 450-2002, "IEEE Recommended Practice for Maintenance, Testing, and Replacement of Vented Lead-Acid Batteries for Stationary Applications." RG 1.129, Rev. 2 provides criteria for a modified performance test and the licensee has committed to utilize RG 1.129 in its UFSAR.

In the Vogtle Electric Generating Plant (VEGP) Units 3 and 4 License Amendment Request (LAR) 18-003, the licensee proposed to make changes to the surveillance frequency in Technical Specifications (TS) Surveillance Requirements (SR) 3.8.7.6 (performance test). The staff noted that in SR 3.8.1.3 (service test), Note 1, which states that the modified performance discharge test in SR 3.8.7.6 may be performed in lieu of SR 3.8.1.3. Based on RG 1.129, Rev.2 the battery service test should be performed with intervals not to exceed 24 months. Therefore, when the modified performance test is performed in lieu of the service test, the surveillance frequency should not exceed 24 months. However, in the LAR, the licensee did not identify the surveillance frequency for the modified performance test.

Please confirm whether VEGP Units 3 and 4 will perform the modified performance test in Note 1 of SR 3.8.1.3. If so, describe what the modified performance test surveillance frequency is and confirm its conformance to the criteria of RG 1.129, Rev. 2, as committed in the UFSAR.

SNC Response to RAI:

1. Per COL Appendix A, Surveillance Requirement (SR) 3.8.1.3, battery service tests are to be performed at 24 month intervals, or the modified performance discharge test in SR 3.8.7.6 may be performed in lieu of the service test. Therefore, either a battery service test or a modified performance discharge test will be performed at a 24 month frequency, which is in conformance with the testing frequency requirements of Regulatory Guide 1.129, Revision 2.
2. Per COL Appendix A, SR 3.8.7.6, a performance discharge test or modified performance discharge test to verify battery capacity shall be performed at a 5 year interval. LAR 18-003 proposes to revise this interval to state that either the performance discharge test or modified performance discharge test is to be performed at the lesser interval of 5 years or

25% of expected battery life, in alignment with NRC Information Notice IN 2013-05 and IEEE 450-2002. Therefore, the frequency of battery testing over an example 72-month period is as follows:

- At 24 months: Perform a battery service test (SR 3.8.1.3) or modified performance discharge test substitute (SR 3.8.1.3, Note 1).
 - At 48 months: Perform a battery service test (SR 3.8.1.3) or modified performance discharge test substitute (SR3.8.1.3, Note 1).
 - At 25% of qualified life, but not to exceed 60 months: Perform a performance discharge test or modified performance discharge test (SR 3.8.7.6).
 - At 72 months: Perform a battery service test (SR 3.8.1.3) or modified performance discharge test substitute (SR 3.8.1.3, Note 1).
3. It is noted that the Staff indicates that “the licensee has committed to utilize RG 1.129 in its UFSAR” and that the licensee is requested to “confirm its conformance to the criteria of RG 1.129, Rev. 2, as committed in the UFSAR.” It is presumed that the Staff is looking at UFSAR Subsection 8.3.2.1.4 where it is stated “Procedures are established for inspection and maintenance of Class 1E and non-Class 1E batteries. Class 1E battery maintenance and service testing is performed in conformance with Regulatory Guide 1.129.” However, this should be read in context with the other references to RG 1.129 in the UFSAR, particularly as noted in Table 1.9-1 and Appendix 1A. Appendix 1A clearly identifies an exception is taken to RG 1.129, Rev. 2, and that IEEE 450-1995 was utilized to develop the Technical Specifications content and frequency in lieu of IEEE 450-2002. This is consistent with the requirement of TS 5.5.11, and with references to IEEE 450-1995 throughout the Bases for the approved Vogtle Technical Specifications.

However, this use of IEEE 450-1995 (rather than the 2002 version) does not have an impact on the response provided above. As indicated in RG 1.129, Rev. 2, SNC will perform Class 1E battery maintenance and service testing, and the battery service testing or performance discharge testing will be performed at a 24 month frequency as currently identified in Technical Specification Surveillance Requirement 3.8.1.3.