Vogtle PEmails

From: Kallan, Paul
Sent: Tuesday, January 30, 2018 11:03 AM
To: Vogtle PEmails
Subject: VOG-RAI-Letter for LAR 17-033.docx
Attachments: VOG-RAI-Letter for LAR 17-033.docx

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Subject: VOG-RAI-Letter for LAR 17-033.docx
Sent Date: 1/30/2018 11:02:55 AM
Received Date: 1/30/2018 11:02:58 AM
From: Kallan, Paul

Created By: Paul.Kallan@nrc.gov

Recipients:
"Vogtle PEmails" <Vogtle.PEmails@nrc.gov>
Tracking Status: None

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Files	**Size**	**Date & Time**
MESSAGE	3	1/30/2018 11:02:58 AM
VOG-RAI-Letter for LAR 17-033.docx	36892	

Options
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Return Notification: No
Reply Requested: No
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January 30, 2018

Mr. B.H. Whitley, Director
Regulatory Affairs
Southern Nuclear Operating Company, Inc.
42 Inverness Center Parkway, B237
Birmingham, AL 35242

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 1 RELATED TO PASSIVE RESIDUAL HEAT REMOVAL HEAT TRANSFER AND IN-CONTAINMENT REFUELING WATER STORAGE TANK HEAT UP TEST ACCEPTANCE CRITERIA CHANGE FOR THE VOGTLE ELECTRIC GENERATING PLANT UNITS 3 AND 4 COMBINED LICENSES (TAC NO. RP9705)

Dear Mr. Whitley:

By letter dated October 6, 2017 (ADAMS Accession NO. ML17279B017), Southern Nuclear Operating Company (SNC) requested an amendment to Combined License Numbers NPF-91 and NPF-92 for Vogtle Electric Generating Plant Units 3 and 4 respectively. The proposed license amendment request requires 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 and a COL License Condition which references a UFSAR Section impacted by one of the proposed changes. Specifically, the proposed changes would revise the license basis documents to change the methodology and acceptance criteria for the in-containment refueling water storage tank (IRWST) heatup preoperational test described in UFSAR Subsection 14.2.9.1.3, item h and the passive residual heat removal (PRHR) heat exchanger preoperational test described in UFSAR Subsection 14.2.9.1.3, item g. These changes involve material which is specifically referenced in Section 2.D.(2) of the COLs for VEGP Units 3 and 4.

In the course of reviewing your request the NRC staff has identified the need for additional information. The request for additional information (RAI) is enclosed. Please respond to this RAI within 30 days of receipt of this letter.

If you have any questions or comments concerning this matter, you may contact me at

301-415-2809 or Paul.Kallan@nrc.gov.

Sincerely,

/RA/

Paul Kallan, Senior Project Manager
Licensing Branch 4
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-025
52-026

Enclosure:
Request for Additional Information 1

CC: see next page

If you have any questions or comments concerning this matter, you may contact me at 301-415-2809 or Paul.Kallan@nrc.gov.

Sincerely,

/RA/

Paul Kallan, Senior Project Manager
Licensing Branch 4
Division of New Reactor Licensing
Office of New Reactors

Docket Nos. 52-025
52-026

Enclosure:
Request for Additional Information 1

CC: see next page

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NRO-002

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NAME	RKaras*	JDixon-Herrity*	PKallan *
DATE	01/30/18	1/30/18	1/30/18

*Approval captured electronically in the electronic RAI system.

Request for Additional Information 1

Issue Date: 01/30/2018
Application Title: VEGP Units 3 and 4 - LARs
Operating Company: Southern Nuclear Operating Co.
Docket No. 52-025 and 52-026
Review Section: 14.02 - Initial Plant Test Program - Design Certification and New License Applicants
Application Section: 14.2.9.1.3

QUESTIONS

14.02-1

10 CFR Part 50, Appendix A, General Design Criterion 37, “Testing of emergency core cooling system”, requires in part that the emergency core cooling system shall be designed to permit appropriate periodic pressure and functional testing to assure the operability of the system as a whole and, under conditions as close to design as practical, the performance of the full operational sequence that brings the system into operation. The IRWST and PRHR heat exchanger make up part of the emergency core cooling system for this design.

One of the proposed changes in the LAR changes the acceptance criterion in UFSAR Subsection 14.2.9.1.3 from supporting the safe shutdown temperature criteria in Chapter 19 to demonstrating that the average IRWST heatup is consistent with the PRHR heat transfer modeling in Chapter 15. It is not clear to the staff how this acceptance criteria will be satisfied – unlike the previous acceptance criteria, which had a clear numerical basis (420F in 36 hours), the revised acceptance criteria cites consistency with a modeling approach. The technical evaluation section of the LAR states that data from the test will still be used to support the overall PPRHR heat transfer assumptions, and that the use of LOFTRAN “allows for a one-to-one comparison between the as-built plant and the safety analysis presented in Chapter 15”. Staff recognizes that testing at conditions akin to those in Chapter 15 and/or Chapter 19 may not be practical. However, the staff needs additional description of how the proposed test will demonstrate system performance under the expected conditions. Accordingly, staff requests that the applicant provide additional detail regarding the new acceptance criteria for a satisfactory test, and how the test data will be used to demonstrate consistency with the analysis documented in Chapter 15.

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