



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

May 15, 2020

MEMORANDUM TO: Victor Hall, Chief  
Vogtle Project Office  
Office of Nuclear Reactor Regulation

FROM: Jennivine Rankin, Project Manager /RA/  
Vogtle Project Office  
Office of Nuclear Reactor Regulation

SUBJECT: AUDIT PLAN FOR VOGTLE ELECTRIC GENERATING PLANT  
UNITS 3 AND 4, REQUEST FOR LICENSE AMENDMENT:  
CORE MAKEUP TANK BORON CONCENTRATION  
REQUIREMENTS (LAR 20-004)

By letter dated April 30, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML20121A288), Southern Nuclear Operating Company (the licensee) requested an amendment to Combined License (COL) Numbers NPF-91 and NPF-92, for Vogtle Electric Generating Plant (VEGP) Units 3 and 4.

The requested amendment would change 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 involves changes to the plant-specific Technical Specifications (COL Appendix A).

The requested amendment would revise the upper limit of the Core Makeup Tank (CMT) boron concentration Technical Specification (TS) Surveillance Requirement (SR), the mass of trisodium phosphate (TSP) required by TS Limiting Condition for Operation (LCO) and associated SR, and the frequency of performance of the CMT boron concentration TS SR.

CONTACT: Jennivine Rankin, NRR/VPO  
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The Nuclear Methods, Systems, and New Reactors Branch, the Technical Specifications Branch, and the Corrosion and Steam Generator Branch (SNRB, STSB, and NCSG) plan to conduct an audit to gain a better understanding of the proposed changes and to review related documentation and non-docketed information in order to evaluate the acceptability of the proposed changes to the license.

Docket Nos.: 52-025 and 52-026

Enclosure:  
Regulatory Audit Plan

cc: See next page

AUDIT PLAN FOR VOGTLE ELECTRIC GENERATING PLANT UNITS 3 AND 4, REQUEST  
FOR LICENSE AMENDMENT: CORE MAKEUP TANK BORON CONCENTRATION  
REQUIREMENTS (LAR 20-004) DATED: May 15, 2020

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ADAMS Accession No.: ML20133K106			*Via email	NRO-008
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DATE	5/13/20	5/12/20	5/13/20	5/13/20
OFFICE	NRR/DSS/STSB/BC	NRR/VPO/BC	NRR/VPO/PM	
NAME	VCusumano*	VHall	JRankin	
DATE	5/13/20	5/14/20	5/15/20	

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(Revised 4/7/2020)

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**AUDIT OF REPORTS AND CALCULATIONS IN SUPPORT OF REQUEST FOR LICENSE  
AMENDMENT RELATED TO CORE MAKEUP TANK BORON CONCENTRATION  
REQUIREMENTS (LAR 20-004)**

**SOUTHERN NUCLEAR OPERATING COMPANY  
VOGTLE ELECTRIC GENERATING PLANT, UNITS 3 AND 4  
DOCKET NOS. 52-025 and 52-026**

The purpose of the audit is to review the documentation and calculations needed by the U.S. Nuclear Regulatory Commission (NRC) staff to verify the information and conclusions in the "Request for License Amendment: Core Makeup Tank Boron Concentration Requirements (LAR-20-004)" submitted by Southern Nuclear Operating Company (SNC) for the Vogtle Electric Generating Plant (VEGP), Units 3 and 4 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20121A288).

**A. Background:**

In LAR 20-004, SNC requests 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 involves changes to the plant-specific Technical Specifications (COL Appendix A).

The LAR includes proposed changes to revise the upper limit of the Core Makeup Tank (CMT) boron concentration Technical Specification (TS) Surveillance Requirement (SR), the mass of trisodium phosphate (TSP) required by TS Limiting Condition for Operation (LCO) and associated SR, and the frequency of performance of the CMT boron concentration TS SR.

**B. Regulatory Audit Basis**

This regulatory audit is based on the following:

- VEGP Units 3 and 4 UFSAR Tier 2, Revision 8, June 14, 2019 (ADAMS Accession No. ML19171A096).
- VEGP Unit 3, Current Facility Combined License NPF-91 (ADAMS Accession No. ML14100A106).
- VEGP Unit 4, Current Facility Combined License NPF-92 (ADAMS Accession No. ML14100A135).

**C. Regulatory Audit Scope and Methodology**

The audit team will view the documentation and calculations that provide the technical support for LAR 20-004. Information to be reviewed involves the detailed calculations used to support the changes to the mass of TSP and the Computational Fluid Dynamic modeling temperature calculations. Updated and new operational procedures associated with the proposed changes to the UFSAR will also be reviewed. This includes procedures that ensure CMT boron concentrations remain above the minimum TS limit (e.g., licensee actions when obtaining sample below 4375 parts per million during the 31 day interval) and procedures associated with actions from a CMT top high temperature alarm.

In addition, the audit team will request to discuss these topics with subject matter expert(s).

#### **D. Information and Other Material Necessary for the Regulatory Audit**

The staff requests that the documents, data, and calculations regarding the aforementioned topics be made available to the staff in the electronic reading room:

The staff acknowledges and will observe appropriate handling and protection of proprietary information made available for the audit.

#### **E. Audit Team**

The following are the NRC audit team members.

- Tony Gardner, Physical Scientist
- Joshua Miller, Nuclear Engineer
- Matthew Yoder, Senior Chemical Engineer
- John Budzynski, Nuclear Engineer
- Stephen Smith, Senior Safety and Plant Systems Engineer
- Jennivine Rankin, Project Manager
- Olivier Lareynie, Nuclear Engineer (Foreign Assignee)

The licensee contact is Ryan Henderson.

#### **F. Logistics**

Date: May 18, 2020 – June 19, 2020

Location: The audit will be conducted remotely using the licensee's electronic reading room and teleconferences.

#### **G. Special Requests**

None

Jennivine Rankin, NRC Project Manager, can be reached at 301-415-1530 or [Jennivine.Rankin@nrc.gov](mailto:Jennivine.Rankin@nrc.gov).

#### **H. Deliverables**

On completion of the audit, the staff will prepare an audit summary report that will be declared and entered as an official agency record in ADAMS. The audit outcome may be used to identify any additional information to be submitted for making regulatory decisions and will assist the staff in the issuance of requests for additional information (if necessary) in completing its review of LAR 20-004.