



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

January 8, 2020

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

FROM: Cayetano Santos, Senior 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 AND EXEMPTION: AUTOMATIC
DEPRESSURIZATION SYSTEM (ADS) AND CORE
MAKEUP TANK (CMT) DESIGN PARAMETERS
(LAR-19-009)

By letter dated September 30, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML19273A953), as supplemented by letter dated December 19, 2019 (ADAMS Accession No. ML19353B752), 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 proposes to depart from Updated Final Safety Analysis Report (UFSAR) Tier 2 information (which includes the plant-specific Design Control Document (DCD) Tier 2 information), involves related changes to plant-specific Tier 1 information, with corresponding changes to the associated COL Appendix C information, and involves related changes to COL Appendix A, Technical Specifications. Pursuant to the provisions of 10 CFR 52.63(b)(1), an exemption from elements of the design as certified in the 10 CFR Part 52, Appendix D, design certification rule is also requested for the plant-specific DCD Tier 1 material departures.

The requested amendment proposes changes to reflect revisions in the design parameters of: a) the maximum stroke times for the automatic depressurization system (ADS) Stages 1, 2, and 3 valves; b) the minimum effective flow areas for the ADS Stages 2 and 3 valves; and c) the core makeup tank (CMT) minimum volume. These changes were previously discussed with the NRC staff at a public technical exchange meeting (ADAMS Accession No. ML19142A367) on May 23, 2019, and at a public pre-submittal meeting (ADAMS Accession No. ML19240B902) on August 29, 2019.

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NRR/VPO
301-415-7270

The Nuclear Methods, Systems, and New Reactors Branch (DSS/SNRB), PRA Licensing Branch C (DRA/APLC), and Technical Specifications Branch (DSS/STSB) staff 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 conformance with the Standard Review Plan or technical guidance.

Docket Nos.: 52-025 and 52-026

Enclosure:
Regulatory Audit Plan

cc: See next page

U.S. NUCLEAR REGULATORY COMMISSION AUDIT PLAN FOR VOGTLE ELECTRIC
GENERATING PLANT UNITS 3 AND 4, REQUEST FOR LICENSE AMENDMENT AND
EXEMPTION: AUTOMATIC DEPRESSURIZATION SYSTEM (ADS) AND CORE MAKEUP
TANK (CMT) DESIGN PARAMETERS (LAR-19-009) DATED: JANUARY 8, 2020

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ADAMS Accession No. ML19364A157***via e-mail****NRO-008**

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(Revised 11/12/2019)

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**AUDIT OF REPORTS AND CALCULATIONS IN SUPPORT OF A REQUEST
FOR A LICENSE AMENDMENT RELATED TO CHANGES IN DESIGN
PARAMETERS FOR AUTOMATIC DEPRESSURIZATION SYSTEM
(ADS) AND CORE MAKEUP TANK (CMT) (LAR-19-009)**

**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 and Exemption: Automatic Depressurization System (ADS) and Core Makeup Tank (CMT) Design Parameters" (LAR 19-009) 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 Nos. ML19273A953 and ML19353B752).

A. Background:

The proposed changes would revise the licensing basis documents to reflect revised automatic depressurization system (ADS) and core makeup tank (CMT) design parameters. The requested amendment requires a departure from the Updated Final Safety Analysis Report (UFSAR) Tier 2 information that involves a change to the plant-specific Tier 1 (and associated COL Appendix C) information in Table 2.1.2-4 identifying a) the maximum stroke times for the ADS Stages 1, 2, and 3 valves, and b) the minimum effective flow areas for the ADS Stages 2 and 3 valves.

The requested amendment also requires a departure from the UFSAR Tier 2 information that involves a change to the COL Appendix A information in Technical Specification (TS) 3.5.2 and TS 3.5.3 identifying the required CMT minimum volume. Editorial changes are also provided for TS 3.5.3.

B. Regulatory Audit Basis

This regulatory audit is based on the following:

- VEGP Units 3 and 4 Revision 8 to UFSAR, Revision 7 to Tier 1, Revision 51 to Technical Specifications Bases, June 14, 2019 (ADAMS Accession No. ML19171A093).
- VEGP Units 3 and 4 UFSAR Tier 2, Chapter 14, Revision 8, March 21, 2019 (ADAMS Accession No. ML19171A073).
- VEGP Units 3 and 4 UFSAR Tier 2, Chapter 15, Revision 8, March 21, 2019 (ADAMS Accession No. ML19171A074).
- VEGP Units 3 and 4 UFSAR Tier 2, Chapter 19, Revision 8, March 21, 2019 (ADAMS Accession No. ML19171A078).
- VEGP Units 3 and 4 Tier 1, Revision 7, March 21, 2019 (ADAMS Accession No. ML19171A045).
- VEGP Units 3 and 4 Technical Specifications Bases, Revision 51 (ADAMS Accession No. ML19171A050)

C. Regulatory Audit Scope and Methodology

The audit team will view the documentation and calculations for full power and shutdown conditions that provide the technical support for LAR 19-009.

D. Information and Other Material Necessary for the Regulatory Audit

The staff requests that documents and calculations related to minimum CMT volume for the loss of normal residual heat removal system (RNS) analysis for shutdown modes be made available to the staff in the electronic reading room.

Other documents may be requested based on the staff's review of the above documents.

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:

- Ryan Nolan, Nuclear Engineer, Lead
- Marie Pohida, Senior Reliability and Risk Analyst (shutdown operations)
- Caroline Tilton, Safety and Plant Systems Engineer
- Alina Schiller, Project Manager

The following are the licensee contacts:

- Eddie Grant
- Amy Chamberlain

F. Logistics

Date: January 7, 2020 – January 23, 2020

Location: Westinghouse Electric Company, LLC
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11333 Woodglen Drive, Suite 203
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Telephone: 301-881-7040/7042

Additionally, the review of documents supporting LAR 19-009, and identified in Section D of this audit plan, can be conducted at NRC Headquarters via the licensee's electronic reading room.

Location: NRC Headquarters
One White Flint North
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G. Special Requests

If necessary, the staff requests that subject matter expert(s) be made available to discuss the documentation and calculations for full power and shutdown conditions that provide the technical support for LAR 19-009.

Alina Schiller (NRC), NRC Project Manager, can be reached at 301-415-8177 or Alina.Schiller@nrc.gov.

H. Deliverables

On completion of the audit, the staff will prepare an audit summary report within 45 days 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 19-009.