



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

June 18, 2018

Mr. James J. Hutto
Regulatory Affairs Director
Vogtle Electric Generating Plant
Southern Nuclear Operating Company, Inc.
40 Inverness Center Parkway, Bin 38
Birmingham, AL 35201-1295

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 – REGULATORY
AUDIT REPORT SUPPORTING LICENSE AMENDMENT REQUEST FOR
APPROVAL TO UTILIZE THE TORNADO MISSILE RISK EVALUATOR TO
ANALYZE TORNADO MISSILE PROTECTION NON-CONFORMANCES
(EPID L-2017-LLA-0350)

Dear Mr. Hutto:

By letter dated October 11, 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17284A348), Southern Nuclear Operating Company, Inc. (SNC), submitted a license amendment request regarding Vogtle Electric Generating Plant, Units 1 and 2. The proposed amendments would modify the licensing and design bases as described in the Updated Final Safety Analysis Report to include a new methodology for determining the structures, systems, and components that require protection from tornado-generated missiles.

On March 16, 2018 (ADAMS Accession No. ML18054A042), the U.S. Nuclear Regulatory Commission (NRC) staff issued an audit plan that conveyed intent to conduct a regulatory audit to support its review of the subject license amendment. On April 4 through April 6, 2018, the NRC staff conducted the first phase of the audit at the EXCEL facility in Rockville, Maryland. As a result of those interactions, and by letter dated May 3, 2018 (ADAMS Accession No. ML18114A230), the NRC staff modified the list of audit questions. On May 15, 2018, the NRC staff conducted the final phase of the audit at the same location.

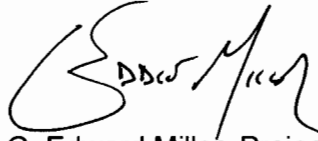
As stated in the original plan, the purpose of the audit was to gain understanding, to verify information, and to identify information that will require docketing to support the licensing or regulatory decision. On June 1, 2018 (ADAMS Accession No. ML18136A497), as informed by the interactions of this audit, the NRC staff issued a request for additional information to SNC regarding the subject license amendment request. The Enclosure to this letter provides a report of the NRC staff's audit.

J. Hutto

- 2 -

If you have any questions, please contact me by telephone at (301) 415-2481 or by e-mail at ed.miller@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "G. Edward Miller". The signature is stylized and cursive.

G. Edward Miller, Project Manager
Special Projects and Process Branch
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

Enclosure:
Audit Report

cc: Listserv

A small, handwritten mark or signature in black ink, possibly initials or a small flourish.



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REGULATORY AUDIT REPORT
SOUTHERN NUCLEAR OPERATING COMPANY, INC.
VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2
LICENSE AMENDMENT REQUEST
TORNADO MISSILE RISK EVALUATOR
DOCKET NOS. 50-424 AND 50-425

1.0 BACKGROUND

By letter dated October 11, 2017,¹ Southern Nuclear Operating Company, Inc. (SNC, the licensee), submitted a license amendment request (LAR) regarding Vogtle Electric Generating Plant, Units 1 and 2. The proposed amendments would modify the licensing and design bases as described in the Updated Final Safety Analysis Report to include a new methodology for determining the structures, systems, and components that require protection from tornado-generated missiles.

2.0 SCOPE AND PURPOSE

The audit was held on April 4 through April 6, 2018 (Phase 1), and May 15, 2018 (Phase 2), at EXCEL Services office in Rockville, Maryland, and was conducted in accordance with the audit plan provided to the licensee. The purpose of the audit was to help the U.S. Nuclear Regulatory Commission (NRC) staff better understand the documentation and analysis results through interaction with the licensee's technical experts and to help focus the staff's requests for additional information (RAIs) on those questions where docketed information is needed to complete the review.

3.0 AUDIT TEAM

The following NRC staff members participated in the audit:

- Greg Casto – Branch Chief
- Mehdi Reisi-Fard – Team Leader
- Shilp Vasavada – Technical Reviewer
- Nageswara Karipineni – Technical Reviewer
- Gordon Curran – Technical Reviewer
- Malcolm Patterson – Technical Reviewer
- Ed Miller – Project Manager

¹ The LAR is available under Agencywide Documents Access and Management System (ADAMS) Accession No. ML17284A348.

The following SNC personnel supported the audit:

- Ken Lowery
- Alex Gilbreath
- Justin Huber

The following individuals provided technical support to SNC during the audit:

- John Caves
- Hasan Charkas
- Monica Chlastosz
- Steve Geier
- Jack Grobe
- Chris Riedl
- Leo Shanley
- Steve Vaughn
- Bret Tegeler

4.0 AUDIT REPORT

At the beginning of Phase 1 of the audit, SNC provided a presentation that addressed the audit questions provided with the March 16, 2018, audit plan.² The NRC staff asked questions as the presentation stepped through the individual questions. For the first day, each question was binned as being (1) Not necessary (e.g., information already on the docket), (2) Clear as-is or with modification, or (3) Needing additional discussion. Additionally, based on the interactions, some new questions were raised by the NRC staff. By the end of Phase 1, all questions had been binned and it was agreed that an additional audit day would be of benefit following an opportunity for both parties to consider the information discussed.

Prior to resumption of the audit, and based on the Phase 1 interactions, the NRC staff modified the audit questions and reissued them to SNC via letter dated May 3, 2018.³ On May 15, 2018, the NRC began Phase 2 of the audit. This phase focused on those questions from Phase 1 that were identified as needing additional discussion. At the end of the interaction, no further questions were binned as needing additional interaction.

5.0 DOCUMENTS REVIEWED

In addition to discussions with licensee, the NRC staff reviewed the following documents during the audit:

- Calculation V-RIE-TMRE-U00, Vogtle Units 1 and 2 Tornado Missile Risk Evaluator;
- Procedure RIE-001-GL01, PRA Configuration Maintenance Guideline;
- Procedure RIE-014, Configuration Management of PRA Models, Qualitative Models, and Software;
- Procedure RIE-001, Generation and Maintenance of Probabilistic Risk Assessment Models and Associated Updates;
- Drawing 1X1D31A01, Diesel Fuel Oil Storage Valve Box Structure;

² The audit plan is available under ADAMS Accession No. ML18054A042.

³ The revised audit questions are available under ADAMS Accession No. ML18114A230.

- Procedure RIE-012, Risk Informed Applications; and
- TMRE Missile Count Walkdown Report.

6.0 CONCLUSION

Through the audit, the NRC staff obtained an enhanced understanding of the licensee's submittal and the details of the methodology. There was open communication throughout the audit, and this helped the NRC staff to communicate information needs for the submittal and have them understood by SNC. As a result of the discussions during the audit, the number of potential RAIs has been minimized and the scope of the remaining questions has been focused directly on the topic of concern. On June 1, 2018 (ADAMS Accession No. ML18136A497), the NRC staff issued these RAIs to SNC.

Date: June 18, 2018

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- EBrown, NRR
- RKuntz, NRR

ADAMS Accession No. ML18138A419

***Via E-mail**

OFFICE	NRR/DORL/LSPB/PM	NRR/DORL/LSPB/LA	NRR/DRA/APLB/BC
NAME	GEMiller	JBurkhardt	GCasto
DATE	6/11/18	5/22/18	6/4/18
OFFICE	NRR/DSS/SCP/B/BC	NRR/DORL/LSPB/BC	NRR/DORL/LSPB/PM
NAME	Sanderson (BDennig for)	DBroaddus	GEMiller
DATE	6/6/18	6/15/18	6/18/18

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