



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

September 22, 2021

Ms. Cheryl A. Gayheart  
Regulatory Affairs Director  
Southern Nuclear Operating Co., Inc.  
3535 Colonnade Parkway  
Birmingham, AL 35243

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 – CORRECTION TO SUMMARY OF JULY 1, 2021, PUBLIC PRE-SUBMITTAL MEETING WITH SOUTHERN NUCLEAR OPERATING COMPANY, INC., REGARDING A PROPOSED LICENSE AMENDMENT REQUEST TO IMPLEMENT ALTERNATE SOURCE TERM AND TSTF-490 FOR VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 (EPID L-2021-LRM-0059)

Dear Ms. Gayheart:

On July 1, 2021, an Observation Public Meeting was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Southern Nuclear Operating Company, Inc. (SNC, the licensee). The purpose of the pre-submittal meeting was for SNC to describe its plan to submit a license amendment request (LAR) to implement alternate source term (AST) and Technical Specification Task Force (TSTF)-490-A, "Deletion of E Bar Definition and Revision to RCS [Reactor Coolant System] Specific Activity Technical Specification [TS]," for Vogtle Electric Generating Plant (Vogtle), Units 1 and 2).

On July 13, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21183A151), a meeting summary was issued. There were 2 errors and 1 omission in the summary that are being corrected below.

#### First Error

The meeting summary stated the following:

SNC stated it plans to submit to the NRC the mark-ups to TS pages and bases for the AST and TSTF-490 LAR for Vogtle, Units 1 and 2. SNC also said it plans to submit the full compliment of dose consequence analyses for the AST LAR for Vogtle, Units 1 and 2, as specified in [Regulatory Guide] RG 1.183 to support peak rod burn-ups **up to < 62 gigawatt-days per metric ton uranium (GWD/MTU)**.

SNC said that it would submit the following dose analyses: (1) large break loss-of-coolant accident (LBLOCA), (2) fuel handling accident (FHA), (3) locked rotor accident (LRA), (4) control rod ejection (CRE), (5) steam generator tube rupture (SGTR), and (6) main steam-line break (MSLB).

SNC informed the NRC staff that SNC will not submit TS mark-ups for the AST; SNC will only provide TS mark-ups for TSTF-490. Slide 4 of the SNC presentation indicated that SNC plans to submit the dose consequence analyses listed. However, SNC said that slide 4 (ADAMS Accession No. ML21172A131) contained an error and it should have read that SNC plans to update the dose consequence analyses listed. SNC has no plans to actually submit those analyses as part of the proposed LAR.

The correct paragraphs should read as follows:

SNC stated it plans to submit to the NRC the mark-ups to TS pages and bases for TSTF-490 LAR for Vogtle, Units 1 and 2. SNC also said it plans to update the dose consequence analyses listed below for the AST LAR for Vogtle, Units 1 and 2, as specified in RG 1.183 to support peak rod burn-ups **up to < 62 gigawatt-days per metric ton uranium (GWD/MTU)**.

SNC said that it would update and not submit the following dose analyses: (1) large break loss-of-coolant accident (LBLOCA), (2) fuel handling accident (FHA), (3) locked rotor accident (LRA), (4) control rod ejection (CRE), (5) steam generator tube rupture (SGTR), and (6) main steam-line break (MSLB).

### Second Error

The meeting summary stated the following:

Vogtle, Units 1 and 2, have 193 fuel assemblies in a 17-inch by 17-inch (17"x17") array, and there are 264 fuel rods per assembly. The overall length of the fuel assembly is approximately 14 feet. So, 40-percent of the 264 fuel rods per assembly is approximately 105 fuel rods per assembly.

The NRC staff incorrectly stated the fuel assembly array and its length. The correct paragraph should read as follows:

Vogtle, Units 1 and 2, have 193 fuel assemblies in a 17 x17 array, and there are 264 fuel rods per assembly. The overall length of the fuel assembly is approximately 13.5 feet. So, 40-percent of the 264 fuel rods per assembly is approximately 105 fuel rods per assembly.

### Omission

The meeting summary stated the following paragraphs:

The NRC staff questioned what is the [linear heat generation rate] LHGR [kilowatt per foot] kw/ft limit that SNC will request in the proposed LAR? SNC stated that the Vogtle, Units 1 and 2, LHGR kw/ft limit will be 7.5 kw/ft. SNC stated that other licensees have requested higher than 7.5 kw/ft. The NRC staff asked for SNC to provide the ADAMS Accession Nos. for those precedents.

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SNC stated that other licensees have requested up to 50-percent of the rods in an assembly be allowed to exceed the LHGR limit in footnote 11 in RG 1.183. The NRC staff asked for SNC to provide the ADAMS Accession Nos. for those precedents.

The following are the revised paragraphs:

The NRC staff questioned what is the LHGR kw/ft limit that SNC will request in the proposed LAR? SNC stated that the Vogtle, Units 1 and 2, LHGR kw/ft limit will be 7.5 kw/ft. SNC stated that other licensees have requested higher than 7.5 kw/ft. The NRC staff asked for SNC to provide the ADAMS Accession Nos. for those precedents. SNC cited the letter to Wolf Creek, dated May 31, 2019 (ADAMS Accession No. ML19100A122), which cites LHGRs from 12.2 kw/ft at 35 GWD/MTU to 7.0 kw/ft at 65 GWD/MTU. SNC said other applicable precedents would be reviewed and provided to the NRC. The LHGR kw/ft will likely be 7.5 kw/ft; however, SNC did not commit to an actual value. Besides Wolf Creek cited above, other precedents that SNC stated that are consistent with its proposed LAR are (1) Kewaunee, dated March 8, 2007 (ADAMS Accession No. ML070430020), (2) Point Beach, Units 1 and 2, dated April 14, 2011 (ADAMS Accession No. ML110240054), (3) Indian Point, Unit 2, dated October 27, 2002 (ADAMS Accession No. ML042960007), and (4) Indian Point, Unit 3, dated March 22, 2005 (ADAMS Accession No. ML050750431).

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SNC stated that other licensees have requested up to 50-percent of the rods in an assembly be allowed to exceed the LHGR limit in footnote 11 in RG 1.183. The NRC staff asked for SNC to provide the ADAMS Accession Nos. for those precedents. SNC stated that Kewaunee had 50-percent of the rods in an assembly allowed to exceed the LHGR limit in footnote 11. SNC said that Indian Point, Units 2 and 3, and Point Beach, Units 1 and 2, had 100-percent of the rods in an assembly allowed to exceed the LHGR limit in footnote 11.

If you have any questions, please contact me at (301) 415-3100 or via email at [John.Lamb@nrc.gov](mailto:John.Lamb@nrc.gov).

Sincerely,

**/RA**

John G. Lamb, Sr. Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

cc: Listserv

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