

April 11, 2006

Mr. D. E. Grissette
Vice President
Southern Nuclear Operating
Company, Inc.
Post Office Box 1295
Birmingham, AL 35201-1295

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNITS 1 AND 2 (VOGTLE 1 AND 2) - REACTOR VESSEL MATERIAL SURVEILLANCE PROGRAM (RVMSP) STANDBY SPECIMEN CAPSULE WITHDRAWAL PLANS AND EXEMPTION REQUEST (TAC NOS. MC8217 AND MC8218)

Dear Mr. Grissette:

By letter dated July 28, 2005, Southern Nuclear Operating Company, Inc. (SNC), requested approval of its plans for the withdrawal of the remaining standby specimen capsules from Vogtle 1 and 2, and approval of an exemption from the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Appendix H, Section IV (henceforth "the rule") for the post-withdrawal analysis and submittal of a summary technical report. The exemption request pertains to the 6th specimen capsule for Vogtle 1 and 2.

The rule provides the Nuclear Regulatory Commission (NRC) staff's requirements for the RVMSP, which include proposed reactor vessel (RV) surveillance capsule withdrawal schedules. Section III.B.3 of the rule requires that changes to the RV surveillance capsule withdrawal schedules be reviewed and approved by the NRC staff. Section IV.A requires that the licensee prepare a summary report for each RV surveillance capsule withdrawal and submit the report to the NRC staff within 1 year of the date of capsule removal.

The NRC staff has reviewed the requirements of the rule and the RV surveillance capsule withdrawal schedule requirements of the American Society for Testing and Materials (ASTM) Standard Practice E 185-82 (henceforth "E 185-82"), which are invoked by the rule. E 185-82 requires that if the limiting shift in adjusted reference temperature (i.e., limiting ΔRT_{NDT} value) for the RV beltline materials is projected to be less than or equal to 100 degrees F (EF) at the expiration of the current operating license (EOL), licensees must remove three surveillance capsules from the RV for analysis and reporting.

The most recent pressurized thermal shock (PTS) assessment for Vogtle 1, as required by 10 CFR 50.61, is documented in WCAP-15067, Revision 0, "Analysis of Capsule V From Southern Nuclear Vogtle Electric Generating Plant Unit 1 Reactor Vessel Radiation Surveillance Program" (refer to SNC Letter LCV-1258, dated October 12, 1998). The most recent PTS assessment for Vogtle 2 is documented in WCAP-15160, Revision 0, "Evaluation of Thermal Shock for VEGP, Unit 2" (refer to SNC Letter LCV-1330, dated March 17, 1999). Based on these PTS assessments, the NRC staff has determined that both Vogtle 1 and 2 RVs are projected to have limiting ΔRT_{NDT} values that are less than or equal to 100 EF at EOL (32 effective full power years (EFPY) for Vogtle 1 and 2). Therefore, SNC is only required to

remove three surveillance capsules from each of the Vogtle 1 and 2 RVs for the current operating period to meet the requirements of the rule and E 185-82.

The NRC staff has confirmed that SNC has already removed three surveillance capsules from the Vogtle 1 and 2 RVs and reported the results to the NRC: (1) Capsules U, Y, and V from Vogtle 1, and (2) Capsules U, Y, and X from Vogtle 2. As a result, SNC has already satisfied the withdrawal schedule and reporting requirements in Section III.B.3 of the rule and E 185-82, and no further capsule withdrawal or evaluation is required for the remainder of the current operating license. The NRC staff notes that standby surveillance capsules in RVMSPs are beyond the scope of the withdrawal schedules in E185-82, and, therefore, beyond the scope of the rule for the current operating license. The 4th, 5th, and 6th RV surveillance capsules in each of the Vogtle 1 and 2 RVs are standby capsules in the current license and no exemption or extension of the reporting requirements for these capsules is necessary to comply with the rule for the current operating license.

In a letter dated June 20, 2003, SNC stated its intention to apply for a license extension for Vogtle 1 and 2. NUREG-1801, Volume 2, Revision 1, "Generic Aging Lessons Learned (GALL, Vol. 2, Rev.1)," contains the NRC's latest recommended aging management reviews and aging management programs (AMPs) for license renewal applications (LRAs) that are submitted in accordance with the requirements of 10 CFR Part 54. With respect to submitting the Vogtle 1 and 2 LRA, Chapter XI.M31, "Reactor Vessel Surveillance," of GALL, Vol. 2, Rev. 1, contains the latest NRC-recommended AMP for the RVMSPs and RV surveillance capsule withdrawal schedules. The NRC staff anticipates that SNC will include this AMP in the upcoming LRA for Vogtle 1 and 2. The NRC staff recommends that SNC include in the LRA its plans for the remaining RV surveillance capsules at Vogtle 1 and 2 (i.e., the 4th, 5th, and 6th RV surveillance capsules) in the scope of the "Reactor Vessel Surveillance Program," which is recommended in accordance with AMP XI.M31 of NUREG-1801, Vol. 2, Rev. 1.

This completes the NRC staff's review for TAC Nos. MC8217 and MC8218. If you have any questions, please contact your licensing project manager, Christopher Gratton, at 301-415-1055.

Sincerely,

/RA/

Evangelos C. Marinos, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

cc: See next page

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Evangelos C. Marinos, Chief
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Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-424 and 50-425

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D. Grissette

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