Southern Nuclear

Regulatory Affairs

3535 Colonnade Parkway
Birmingham, AL 35243

205 992 5000 tel
205 992 7795 fax

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ATTN: Document Control Desk
Washington, D. C. 20555-0001

Vogtle Electric Generating Plant Units 1&2
Systematic Risk-Informed Assessment of Debris Technical Report Supplemental Information

Ladies and Gentlemen:

By letter dated April 21, 2017 (Agencywide Documents Access and Management System Accession No. ML17116A098) as supplemented by letters dated July 11, 2017, November 9, 2017, January 2, 2018, January 9, 2018, February 6, 2018, February 12, 2018, February 21, 2018, May 23, 2018 and July 10, 2018, Southern Nuclear Operating Company, Inc. (SNC) submitted a plant-specific technical report for Vogtle Electric Generating Plant (VEGP), Units 1 and 2 and requested U.S. Nuclear Regulatory Commission (NRC) approval of the methods and inputs described in the technical report. The plant-specific technical report describes a risk-informed methodology to evaluate debris effects, with the exception of in-vessel fiber limits. By letter dated July 10, 2018 (ADAMS No. ML18193B163), SNC submitted an update to the technical report. This update incorporated clarifications identified during the NRC audit and review process, and incorporated SNC responses to NRC requests for additional information. During a phone call on August 15, 2018, the NRC staff raised a few questions regarding the coatings debris quantities presented in the updated technical report. By a phone call on August 29, 2018, SNC responded to the questions and informed the NRC that an error was identified in the evaluation of transported coatings debris loads. The discussion below summarizes the impact of this error on the July 10, 2018 technical report and SNC's plan to correct the error.

SNC's investigation of this error showed that the washdown transport fractions, which were correctly identified in Table 3.e.6-2 of Enclosure 5 of the technical report, were incorrectly applied for unqualified coatings debris in the NARWHAL runs for risk quantification, and sensitivity and uncertainty analyses. This error resulted in non-conservative transported particulate debris loads in Tables 3.e.6-15 and 3.e.6-16 of Enclosure 5 of the technical report. The selection of the four worst-case breaks that do not fail any acceptance criteria, (as shown in Tables 3.b.4-2, 3.e.6-16 and 3.h.5-2 of the technical report) were also impacted by this error. Additionally, this error affected the risk quantification results for the base case, and sensitivity and uncertainty cases, as shown in Enclosure 3 of the technical report.

SNC has revised the calculations directly affected by this error. While correcting the error resulted in greater transported coatings debris loads, it had an insignificant impact on the risk quantification results. Therefore, correcting the error will not change the conclusions of the technical report. It should be noted that the Seismic PRA calculation is currently being revised which will provide input to determine a corrected ΔCDF value.

The investigation also identified two typos in Table 3-12 of Enclosure 3. The ΔCDF values for the minimum and maximum "Strainer Debris Limits" sensitivity cases should be 3.47E-08 and 5.31E-09, respectively (compared with the incorrect values shown in the submittal: 3.47E-07 and 5.31E-08). The changes in the ΔCDF values from the base case were correctly shown in Figure 3-9 of Enclosure 3. These typos had no impact on the conclusions of the submittal.

Per earlier discussion, the NRC is issuing a safety evaluation (SE) on the SNC technical report and will include a list of limitations and conditions. SNC will address the error in the transported coatings debris loads discussed above as part of the requested licensing action to resolve generic letter 2004-02.

This letter contains no NRC commitments. If you have any questions, please contact Jamie Coleman at 205.992.6611.

Respectfully submitted,

Cheryl A. Gayheart
Regulatory Affairs Director

CAG/PDB/SCM

Cc: Regional Administrator
NRR Project Manager – Vogtle 1 & 2
Senior Resident Inspector – Vogtle 1 & 2
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