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July 24, 2023

Eric Benner
Director, Division of Engineering and External Hazards
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Request for Review of Nuclear Energy Institute Draft Technical Report NEI 20-07, "Guidance for Addressing Common Cause Failure in High Safety-Significant Safety-Related Digital I&C Systems"

Project Number: 689

Dear Mr. Benner:

The Nuclear Energy Institute (NEI)¹, on behalf of its members, is submitting NEI 20-07, "Guidance for Addressing Common Cause Failure in High Safety-Significant Safety-Related Digital I&C Systems," for NRC review. NEI 20-07 provides applicants with guidance on how to address Common Cause Failure (CCF) in Digital Instrumentation and Control (DI&C) High Safety-Significant Safety-Related (HSSSR) systems in accordance with the new, expanded policy established through SRM-SECY-22-0076. NRC review and endorsement of NEI 20-07 will allow applicants to use risk insights to address CCF.

NEI 20-07 leverages EPRI engineering, hazards analysis and diagnostic tools to identify and address credible sources of CCF. These EPRI tools are based on research results demonstrating their efficacy in developing highly reliable DI&C systems. NEI 20-07 provides justification for the use of these tools to address CCF in HSSSR DI&C systems and guides applicants on the conduct of a Diversity and Defense-in-Depth (D3) analysis.

We request that the NRC review the technical report. We plan to seek NRC endorsement and would consider any feedback from the staff prior to finalizing the document and issuing it to the NRC for endorsement. NEI will submit a fee exemption request to support the NRC's review. In addition, we have

¹ The Nuclear Energy Institute (NEI) is responsible for establishing unified policy on behalf of its members relating to matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect and engineering firms, fuel cycle facilities, nuclear materials licensees, and other organizations involved in the nuclear energy industry.

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submitted a request that NEI 20-07 be withheld from public disclosure, pursuant to 10 CFR 2.390. The title page, executive summary, table of contents, and the definition section will be made public, the remaining pages of the document will be withheld. A redacted version of NEI 20-07 is also enclosed.

If there are any questions on this matter, please contact me at adc@nei.org.

Sincerely,



Alan Campbell

Attachments: NEI 20-07, "Guidance for Addressing Common Cause Failure in High Safety-Significant Safety-Related Digital I&C Systems"
Redacted version NEI 20-07, suitable for public release

c: Samir Darbali (NRR/DEX/ELTB)
Michael Marshall (NRR/DORL/LPL1)
Jason Paige (NRR/DEX/ELTB)
NRC Document Control Desk