



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

December 26, 2019

Daryl Harmon, Chair
IEEE Power & Energy Society
Nuclear Power Engineering Committee
Westinghouse Electric Co. LLC
20 International Dr.
Windsor, CT 06095

Dear Mr. Harmon,

Thank you for your letter requesting priority for endorsement of several recently revised IEEE Standards. The NRC staff responsible for the use of IEEE standards in the conduct of our regulatory activities considered your request. The staff's feedback on the standards listed in your letter is provided below¹.

IEEE Std 60780-323-2016 "IEEE Standard for Qualifying Class 1E Equipment for Nuclear Power Generating Stations"

- NRC staff is working on a draft revision of Regulatory Guide (RG) 1.89, "Environmental Qualification of Certain Electric Equipment Important to Safety for Nuclear Power Plants." The staff is considering endorsing IEEE Std. 60780-323-2016 in this guide. The draft guide is undergoing internal agency review and may be able to be issued for public comments in mid-2020.

IEEE Std 60980-344-2013 "IEEE Recommended Practice for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations"

- Draft Guide (DG)-1328 (proposed revision 4 to RG 1.100), "Seismic Qualification of Electrical Active Mechanical Equipment and Functional Qualification of Active Mechanical Equipment for Nuclear Power Plants," endorses the IEEE Std 60980-344-2013 with exceptions and clarifications. This DG was issued for public comments in February 2019. The final RG 1.100, Revision 4 is expected to be published during the second quarter of CY2020.

IEEE Std 1819-2016 "Standard for Risk-Informed Categorization and Treatment of Electrical Equipment in Nuclear Facilities"

- The staff is considering meeting internally during the first quarter of CY2020 to assess the feasibility for endorsing IEEE Std 1819-2016.

IEEE Std 741-2017 "IEEE Standard Criteria for the Protection of Class 1E Power Systems and Equipment in Nuclear Power Generating Stations"

- NRC staff is working on developing a draft new RG and is considering endorsing IEEE Std 741-2017 in this guide. The staff expects to issue the draft RG for public comments during the third quarter of CY2020.

¹ The feedback is based on staff plans as of December 2019. These plans are tentative and are subject to change.

IEEE Std 387-2017 “IEEE Standard Criteria for Diesel-Generator Units Applied as Standby Power Supplies for Nuclear Power Generating Stations”

- NRC staff is working on a draft revision of RG 1.9, “Application and Testing of Safety-Related Diesel Generators in Nuclear Power Plants,” and is considering endorsing IEEE Std. 387-2017 in this guide. The staff is currently evaluating the feasibility of expanding the scope of RG 1.9 and expects to finalize the path forward during the first quarter of CY2020.

IEEE Std 1786-2011 “Human Factors Guide for Application of Computerized Operating Procedure Systems at Nuclear Power Generating Stations and Other Nuclear Facilities”

- NRC staff has initiated the development of a new draft RG and is considering endorsing IEEE Std 1786-2011 in this guide. The staff expects issuing the draft RG for public comment during the fourth quarter of CY 2020.

IEEE Std 7-4.3.2-2016 “Standard Criteria for Programmable Digital Devices in Safety Systems for Nuclear Power Generating Stations”

- RG 1.152, “Criteria for Use of Computers in Safety Systems of Nuclear Power Plants,” Revision 3, endorses IEEE Std 7- 4.3.2-2003. The staff expects to initiate a draft revision to RG 1.152 by the fourth quarter of CY2020. The staff is considering endorsing IEEE Std 7-4.3.2-2016 in this revision of the guide.

IEEE Std 379-2014 “IEEE Standard Application of the Single-Failure Criterion to Nuclear Power Generating Station Safety Systems”

- RG 1.53, “Application of the Single-Failure Criterion to Safety Systems,” Revision 2, endorses IEEE Std 379-2000. The staff notes that no regulatory issues have been identified with the current RG or standard that would be addressed by an endorsement of the 2014 version of the standard. The staff is aware that the IEEE working group for IEEE Std 379 is preparing a new version of the standard that will address concerns from the staff and industry over software common cause failure. This new revision of the standard is expected to be published in 2021. The staff plans on assessing the need to revise the RG to endorse the newer version of the standard when the revised standard is issued.

Sincerely,

/RA/

Louise Lund
NRC Standards Executive
Office of Nuclear Regulatory Research.

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