



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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April 17, 2017

MEMORANDUM TO: Brian E. Thomas, Director
Division of Engineering
Office of Nuclear Regulatory Research

FROM: Ian C. Jung, Chief **/RA/**
Instrumentation, Controls, and Electrical Engineering Branch
Division of Engineering
Office of Nuclear Regulatory Research

SUBJECT: RESULTS OF PERIODIC REVIEW OF REGULATORY GUIDE
(RG) 1.153, "CRITERIA FOR SAFETY SYSTEMS"

This memorandum documents the U.S. Nuclear Regulatory Commission's (NRC's) periodic review of Regulatory Guide (RG) 1.153, Revision 1. The guide endorses Institute of Electrical and Electronics Engineers (IEEE) Std 603-1991, "Criteria for Safety Systems for Nuclear Power Generating Stations" (including the correction sheet dated January 30, 1995), as a method acceptable for satisfying the Commission's regulations with respect to the design, reliability, qualification, and testability of the power, instrumentation, and control portions of the safety systems of nuclear power plants. As discussed in Management Directive 6.6, "Regulatory Guides," the NRC staff reviews RGs approximately every 5 years to ensure that the RGs continue to provide useful guidance. Documentation of the NRC staff's review is enclosed.

The IEEE standard addressed in RG 1.153, Revision 1 is also addressed in 10 CFR 50.55a(h)(2), "Protection systems," 10 CFR 50.55a(h)(3), "Safety systems." The IEEE revised the referenced standard most recently in 2009. The 2009 version is not addressed in 10 CFR 50.55a(h). The staff proposed changes to 10 CFR 50.55a(h) to address the revised standard. However, the Commission disapproved the staff's proposed changes and directed the staff to develop an integrated strategy to modernize the NRC's digital instrumentation and control regulatory infrastructure. Until the Commission approves a rulemaking to address the more recent standard, Revision 1 of RG 1.153 remains acceptable for use.

Enclosure:
As stated

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