



NUCLEAR REGULATORY COMMISSION

10 CFR Parts 50 and 52

[NRC-2024-0140]

Regulatory Guides: Criteria for Power Systems for Nuclear Power Plants and Criteria for the Protection of Class 1E Power Systems and Equipment for Nuclear Power Plants

AGENCY: Nuclear Regulatory Commission.

ACTION: Final guide; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing Revision 4 to Regulatory Guide (RG) 1.32, “Criteria for Power Systems for Nuclear Power Plants,” and new RG 1.238, “Criteria for the Protection of Class 1E Power Systems and Equipment for Nuclear Power Plants.” RG 1.32, Revision 4, describes an acceptable approach for use in complying with NRC regulations for the design, operation, and testing of electric power systems in nuclear power plants. RG 1.238 describes an acceptable approach for use in complying with NRC regulations for protection of Class 1E power systems and equipment at nuclear power plants. The NRC is also withdrawing RG 1.41, “Preoperational Testing of Redundant On-Site Electric Power Systems to Verify Proper Load Group Assignments,” since its guidance is incorporated into RG 1.32, Revision 4.

DATES: Revision 4 to RG 1.32 and Revision 0 to RG 1.238 are available on [INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: Please refer to Docket ID **NRC-2024-0140** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2024-0140**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; email:

Stacy.Schumann@nrc.gov. For technical questions, contact the individuals listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- **NRC's Agencywide Documents Access and Management System**

(ADAMS): You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, at 301-415-4737, or by email to PDR.Resource@nrc.gov. The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in this document.

- **NRC's PDR:** The PDR, where you may examine and order copies of publicly available documents, is open by appointment. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

Revision 4 to RG 1.32 and the regulatory analysis may be found in ADAMS under Accession Nos. ML24306A036 and ML24158A062; and RG 1.238 and its regulatory analysis may be found in ADAMS under ML24306A049 and ML24158A042, respectively. The basis for withdrawal of RG 1.41 may be found in ADAMS under Accession No. ML24306A039.

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FOR FURTHER INFORMATION CONTACT: Michael Eudy, Office of Nuclear Regulatory Research, telephone: 301-415-3104; email: Michael.Eudy@nrc.gov, Mohammad Sadollah, Office of Nuclear Regulatory Research, telephone: 301-415-6804; email: Mohammad.Sadollah@nrc.gov, and Sheila Ray, Office of Nuclear Reactor Regulation, telephone 301-415-3653; email: Sheila.Ray@nrc.gov. All are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

SUPPLEMENTARY INFORMATION:

I. Discussion

The NRC is issuing a revision and a new RG in the NRC's "Regulatory Guide" series. This series was developed to describe methods that are acceptable to the NRC staff for implementing specific parts of the agency's regulations, to explain techniques that the staff use in evaluating specific issues or postulated events, and to describe information that the staff needs in its review of applications for permits and licenses.

The proposed Revision 4 to RG 1.32 was issued with a temporary identification of Draft Regulatory Guide (DG), DG-1420; and the proposed new RG 1.238 was issued with a temporary identification of DG-1354.

II. Additional Information

The NRC published a notice of the availability of DG-1420 and DG-1354 in the *Federal Register* on August 28, 2024 (89 FR 68787), for a 30-day public comment period. The public comment period closed on September 27, 2024. Public comments and the NRC staff's responses to the public comments on DG-1420 and DG-1354 are available in ADAMS under Accession No. ML24306A053.

RG 1.32, Revision 4, describes an approach that is acceptable to the NRC staff to meet regulatory requirements for the design, operation, and testing of electric power systems in nuclear power plants. Subject to the conditions described in Section C of the RG, it endorses the Institute of Electrical and Electronics Engineers (IEEE) Standard (Std.) 308-2020, "IEEE Standard Criteria for Class 1E Power Systems for Nuclear Power Generating Stations." In addition, RG 1.32, Revision 4 includes the guidance provisions of RG 1.41, "Preoperational Testing of Redundant On-Site Electric Power Systems to Verify Proper Load Group Assignments," which describes methods acceptable to the NRC staff for independence among redundant, onsite power sources and their load groups as part of the initial preoperational testing program and after major modifications or repairs. The staff is withdrawing RG 1.41 because its guidance has been incorporated into RG 1.32, Revision 4.

RG 1.238 describes an approach that is acceptable to the NRC staff for use in complying with NRC regulations that addresses the protection of Class 1E power systems and equipment at nuclear power plants. Subject to the conditions described in Section C of the RG, it endorses, IEEE Std. 741-2022, "IEEE Standard for Criteria for the Protection of Class 1E Power Systems and Equipment for Nuclear Power Generating Stations."

As noted in the *Federal Register* on December 9, 2022 (87 FR 75671), this document is being published in the "Rules" section of the *Federal Register* to comply with publication requirements under chapter I of title 1 of the *Code of Federal Regulations* (CFR).

III. Congressional Review Act

This RG is a rule as defined in the Congressional Review Act (5 U.S.C. 801-808). However, the Office of Management and Budget has not found it to be a major rule as defined in the Congressional Review Act.

IV. Backfitting, Forward Fitting, and Issue Finality

The issuance of Revision 4 to RG 1.32 and RG 1.238 do not constitute backfitting as defined in 10 CFR 50.109, "Backfitting," and as described in NRC Management Directive (MD) 8.4, "Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests"; affect issue finality of any approval issued under 10 CFR part 52, "Licenses, Certificates, and Approvals for Nuclear Power Plants"; or constitute forward fitting as defined in MD 8.4, because, as explained in these RGs, licensees would not be required to comply with the positions set forth in these RGs.

V. Submitting Suggestions for Improvement of Regulatory Guides

A member of the public may, at any time, submit suggestions to the NRC for improvement of existing RGs or for the development of new RGs. Suggestions can be submitted on the NRC's public website at <https://www.nrc.gov/reading-rm/doc-collections/reg-guides/contactus.html>. Suggestions will be considered in future updates and enhancements to the "Regulatory Guide" series.

Dated: January 28, 2025.

For the Nuclear Regulatory Commission.

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