

NUCLEAR REGULATORY COMMISSION

10 CFR Parts 50 and 52

[NRC-2022-0083]

Qualification of Connection Assemblies for Production and Utilization Facilities

AGENCY: Nuclear Regulatory Commission.

ACTION: Regulatory guide; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing Revision 2 of Regulatory Guide (RG) 1.156, "Qualification of Connection Assemblies for Production and Utilization Facilities." This revised guide was updated to endorse "Institute of Electrical and Electronics Engineers" Std. 572-2019 to provide the latest technical information on approaches to satisfy the qualification requirements for connection assemblies. This includes guidance that when used in conjunction with the guidance in RG 1.89, "Environmental Qualification of Certain Electric Equipment Important to Safety for Nuclear Power Plants," provides an acceptable method of demonstrating compliance with the NRC regulations pertaining to the environmental qualification of connectors, terminations, and environmental seals in combination with cables or wires as assemblies for service in production and utilization facilities to ensure that the connection assemblies can perform their safety functions. Further, the revised guide modifies the title of the RG to include other nuclear facilities, as discussed in the RG Section A, under Applicability.

DATES: Revision 2 of RG 1.156 is available on **February 13, 2023**.

ADDRESSES: Please refer to Docket ID **NRC-2022-0083** 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-2022-0083**. 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, 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:** You may examine and purchase copies of public documents, by appointment, at the NRC’s PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. 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 2 of RG 1.156 and the regulatory analysis may be found in ADAMS under Accession No. ML22255A125 and ML21288A561, respectively.

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FOR FURTHER INFORMATION CONTACT: Ahsan Sallman, Office of Nuclear Reactor Regulation, telephone: 301-415-2380, email: Ahsan.Sallman@nrc.gov, and James

Steckel, Office of Nuclear Regulatory Research, telephone: 301-415-1026, email: James.Steckel@nrc.gov. Both are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555- 0001.

SUPPLEMENTARY INFORMATION:

I. Discussion

The NRC is issuing a revision to an existing guide 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 uses 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 2 of RG 1.156 was issued with a temporary identification number of DG- 1400 (ADAMS Accession No. ML21288A562).

Revision 2 of RG 1.156 describes basic procedures for qualifying connection assemblies (e.g., connectors, terminations, and environmental seals in combination with related cables or wires as assemblies). The qualification requirements in this standard, when used in conjunction with RG 1.89 (ADAMS Accession No. ML003740271) allow an applicant or licensee to demonstrate and document the ability of the equipment to perform safety functions under applicable service conditions, including design-basis events. Additionally, Revision 2 of RG 1.156 modifies the title of the RG to include other nuclear facilities, as discuss in the RG Section A, under Applicability.

II. Additional Information

In January 2017 the staff conducted a periodic review of Revision 1 to RG 1.156, and on January 17, 2017, the staff reported the results of the periodic review, "Results of Periodic Review of Regulatory Guide 1.156," (ADAMS Package Accession No.

ML16350A346). Based on the results of the periodic review, the staff concluded that there were no technical issues for staff to address related to the periodic review of RG 1.156, Revision 1, and no changes to RG 1.156, Revision 1, were warranted.

The NRC published a notice of availability of DG-1400 in the *Federal Register* on April 11, 2022 (87 FR 21221) for a 30-day public comment period. The public comment period ended May 11, 2022. Public comments and staff responses to those comments are available in ADAMS under Accession No. ML22224A053.

As noted in the *Federal Register* on December 9, 2022 (87 FR75671), this document is being published in the “Rules” section of the *Federal Register* to comply with publication requirements under 1 CFR chapter I.

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 this regulatory guide does not constitute backfitting as defined in section 50.109 of title 10 of the *Code of Federal Regulations* (10 CFR), “Backfitting,” and as described in NRC Management Directive 8.4, “Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests,” or affect issue finality of any approval issued under 10 CFR part 52, “Licenses, Certificates, and Approvals for Nuclear Power Plants,” because, as explained in this regulatory guide, licensees are not required to comply with the positions set forth in this regulatory guide.

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: February 7, 2023.

For the Nuclear Regulatory Commission.

/RA/

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