7590-01-P

NUCLEAR REGULATORY COMMISSION

10 CFR Parts 51, 52, 100

[NRC-2023-0097]

Draft Regulatory Guide: Damping Values for Seismic Design of Nuclear Power Plants

AGENCY: Nuclear Regulatory Commission

ACTION: Draft guide; request for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing for public comment a draft regulatory guide (DG), DG-1364, "Damping Values for Seismic Design of Nuclear Power Plants." This DG is proposed Revision 2 of Regulatory Guide (RG) 1.61. This DG describes an approach on damping values that is acceptable to the NRC staff for use in meeting regulatory requirements for the seismic response analysis of seismic Category I nuclear power plant structures, systems, and components.

DATES: Submit comments by **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. Comments received after this date will be considered if it is practical to do so, but the NRC is able to ensure consideration only for comments received on or before this date.

ADDRESSES: You may submit comments by any of the following methods; however, the NRC encourages electronic comment submission through the **Federal rulemaking website**:

- **Federal rulemaking website:** Go to https://www.regulations.gov and search for Docket ID **NRC-2023-0097**. 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.

- **Mail comments to:** Office of Administration, Mail Stop: TWFN-7-A60M, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Program Management, Announcements and Editing Staff.

For additional direction on obtaining information and submitting comments, see "Obtaining Information and Submitting Comments" in the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: Edward O'Donnell, telephone: 301-415-3317; email: Edward.ODonnell@nrc.gov and Marcos Rolon Acevedo, telephone: 301-415-2208; email: Marcos.RolonAcevedo@nrc.gov. Both are staff of the Office of Nuclear Regulatory Research at the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID **NRC-2023-0097** when contacting the NRC about the availability of information for this action. You may obtain publicly available information related to this action by any of the following methods:

- **Federal Rulemaking Website:** Go to https://www.regulations.gov and search for Docket ID **NRC-2023-0097**.
- **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.

B. Submitting Comments

The NRC encourages electronic comment submission through the **Federal rulemaking website** (https://www.regulations.gov). Please include Docket ID **NRC-2023-0097** in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at https://www.regulations.gov as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Additional Information

The NRC is issuing for public comment a DG 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 DG, entitled “Damping Values for Seismic Design of Nuclear Power Plants,” (ADAMS Accession No. ML22273A040) is temporarily identified by its task number, DG-1364.

The proposed guide provides guidance for applicants and licensees on damping values that the NRC staff finds acceptable for use in the seismic response analysis of seismic Category I nuclear power plant structures, systems, and components. The specified damping values are intended for elastic dynamic seismic analysis where energy dissipation is accounted for by viscous damping. Since the issuance of revision 1 of RG 1.61 in 2007, updated criteria related to the concrete properties and damping values for use in the development of in-structure response spectra has become available.

DG-1364 addresses the updated criteria for concrete properties and new damping criteria for use in seismic analysis and design of nuclear power plants structures.

The staff is also issuing for public comment a draft regulatory analysis (ADAMS Accession No. ML22273A041). The staff developed a regulatory analysis to assess the value of issuing or revising a regulatory guide as well as determine courses of action.

As noted in the *Federal Register* on December 9, 2022 (87 FR 75671), this document is being published in the “Proposed 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. Backfitting, Forward Fitting, and Issue Finality

Issuance of DG-1364 as a final RG would not constitute backfitting as that term is 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,” to affect the issue finality of an approval issued under 10 CFR part 52,

"Licenses, Certifications, and Approvals for Nuclear Power Plants;" or constitutes forward fitting as that term is defined and described in MD 8.4 because, as explained in DG-1364, licensees would not be required to comply with the positions set forth in the DG.

IV. 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: June 8, 2023.

For the Nuclear Regulatory Commission.

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