

**NUCLEAR REGULATORY COMMISSION**

**[NRC-2021-0087]**

**Preparing Probabilistic Fracture Mechanics Submittals**

**AGENCY:** Nuclear Regulatory Commission

**ACTION:** Draft regulatory guide; draft NUREG; request for comment.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is issuing for public comment a draft regulatory guide (DG), DG-1382, "Preparing Probabilistic Fracture Mechanics Submittals" and accompanying draft NUREG/CR-7278, "Technical Basis for the use of Probabilistic Fracture Mechanics in Regulatory Applications." This DG is proposed new Regulatory Guide (RG) 1.245. This draft guide describes a framework to develop the contents of a licensing submittal that the staff of the NRC considers acceptable when performing probabilistic fracture mechanics (PFM) analyses in support of regulatory applications. The draft NUREG provides the technical basis for DG-1382.

**DATES:** Submit comments by **October 23, 2021**. 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. Although a time limit is given, comments and suggestions in connection with items for inclusion in guides currently being developed or improvements in all published guides are encouraged at any time.

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

**Web Site:**

- **Federal Rulemaking Web Site:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2021-0087**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; e-mail:

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-7A-06M, 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:** Patrick Raynaud, telephone: 301-415-1987, e-mail: Patrick.Raynaud@nrc.gov and Kyle Song, telephone: 301-415-3612, e-mail: Kyle.Song@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-2021-0087** 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 Web Site:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2021-0087**.

- **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 e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). DG-1382, the associated regulatory analysis, and Draft NUREG/CR-7278 may be found in ADAMS under Accession Nos. ML21034A328, ML21034A261, and ML21257A237, respectively.

- **Attention:** The PDR, where you may examine and order copies of public documents, is currently closed. You may submit your request to the PDR via e-mail at [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov) or call 1-800-397-4209 or 301-415-4737, between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays.

#### B. Submitting Comments

The NRC encourages electronic comment submission through the **Federal Rulemaking Web Site** (<https://www.regulations.gov>). Please include Docket ID **NRC-2021-0087** 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 draft 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 DG, entitled "Preparing Probabilistic Fracture Mechanics Submittals," is temporarily identified by its task number, DG-1382.

DG-1382 is accompanied by draft NUREG/CR-7278, "Technical Basis for the use of Probabilistic Fracture Mechanics in Regulatory Applications." This draft NUREG provides the technical basis for the guidance recommended in DG-1382. The NRC is issuing the draft NUREG for public comment at the same time as the DG to allow for review of both documents.

The NRC developed this DG to support the increasing trend toward the use of PFM in regulatory applications. It is intended to ensure that minimum expectations are clear with regard to the contents of PFM regulatory applications. This DG will increase the efficiency of reviews for regulatory applications that use PFM as a supporting technical basis by providing a set of common guidelines for reviewers and licensees.

The staff is also issuing for public comment a draft regulatory analysis. The staff develops a regulatory analysis to assess the value of issuing or revising a regulatory guide as well as alternative courses of action.

### **III. Backfitting, Forward Fitting, and Issue Finality**

DG-1382 and NUREG/CR-7278, if finalized, would 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 (MD) 8.4, “Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests”; would not constitute forward fitting as that term is defined and described in MD 8.4; or affect the issue finality of any approval issued under 10 CFR part 52. As explained in DG-1382, applicants and licensees would not be required to comply with the positions set forth in DG-1382.

Dated: September 17, 2021.

For the Nuclear Regulatory Commission.

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