

**NUCLEAR REGULATORY COMMISSION**

**[NRC-2012-0110]**

**Acceptability of Probabilistic Risk Assessment Results for Risk-Informed  
Activities**

**AGENCY:** Nuclear Regulatory Commission.

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

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is issuing for public comment draft regulatory guide (DG), DG-1362, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities." This proposed guide, which is Revision 3 to Regulatory Guide (RG) 1.200, describes one acceptable approach for determining whether a base probabilistic risk assessment (PRA), in total or the portions that are used to support an application, is acceptable to provide confidence in the results, such that the PRA can be used in regulatory decision-making for light-water reactors. When used in support of an application, the use of this RG will obviate the need for an in-depth review of the base PRA by NRC reviewers, allowing them to focus their review on key assumptions and areas identified by peer reviewers.

**DATES:** Submit comments by August 1, 2020. 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.

This public review and comment period is 30 days. The staff has discussed the content of this draft RG in several public meetings and the staff has addressed multiple comments from the public and industry representatives.

**ADDRESSES:** You may submit comments by any of the following methods:

- **Federal Rulemaking Web Site:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2012-0110**. Address questions about NRC dockets in Regulations.gov to Jennifer Borges; telephone: 301-287-9127; e-mail: [Jennifer.Borges@nrc.gov](mailto:Jennifer.Borges@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:** Anders Gilbertson, telephone: 301-415-1541, email: [Anders.Gilbertson@nrc.gov](mailto:Anders.Gilbertson@nrc.gov), and Harriet Karagiannis, telephone: 301-415-2493, email: [Harriet.Karagiannis@nrc.gov](mailto:Harriet.Karagiannis@nrc.gov). Both are staff of the Office of Nuclear Regulatory Research, 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-2012-0110** when contacting the NRC about the availability of information regarding 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-2012-0110**.

- **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 reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov).

#### **B. Submitting Comments**

Please include Docket ID **NRC-2012-0110** 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 posts all comment submissions at <https://www.regulations.gov> as well as enters 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 submissions 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, titled, "Acceptability of Probabilistic Risk Assessment Results for Risk-Informed Activities," is proposed Revision 3 of RG 1.200 and is temporarily identified by its task number, DG-1362 (ADAMS Accession No. ML19308B636).

DG-1362 describes one acceptable approach for determining whether the acceptability of the base probabilistic risk assessment (PRA), in total or the portions that are used to support an application, is sufficient to provide confidence in the results, such that the PRA can be used in regulatory decision-making for light-water reactors (LWRs). Also, it addresses new industry guidance and enhancements identified since the last revision was issued in March 2009. Specifically, this revision endorses, with staff clarifications and exceptions, the American Society of Mechanical Engineers (ASME) and American Nuclear Society (ANS) Standard ASME/ANS RA-Sa-2009, "Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment for Nuclear Power Plant Applications," the ASME/ANS standard ASME/ANS RA-S Case 1 for seismic PRA, "Case for ASME/ANS RA-Sb-2013 Standard for Level 1/Large Early Release Frequency Probabilistic Risk Assessment of Nuclear Power Plant Applications," Nuclear Energy Institute (NEI) 17-07, Revision 2, "Performance of PRA Peer Reviews

Using the ASME/ANS PRA Standard” (ADAMS Accession No. ML19241A615) and Pressurized-Reactor Owners Group (PWROG) report PWROG-19027-NP, Revision 1, “Newly Developed Method Requirements and Peer Review” (ADAMS Accession No. ML20010F274). This revision further provides for a peer review of newly developed methods, clarifies the process for determining how to classify changes to a PRA, provides definitions related to newly developed methods and other PRA terms, and enhances guidance related to key assumptions and sources of uncertainty.

The staff is also issuing for public comment a draft regulatory analysis (ADAMS Accession No. ML20052C809). 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**

This DG, if finalized, would provide one acceptable approach for determining whether the acceptability of the base PRA, in total or the portions that are used to support an application, is sufficient to provide confidence in the results, such that the PRA can be used in regulatory decision-making for LWRs. Issuance of this DG, if finalized, would not constitute backfitting as defined in section 50.109 of title 10 of *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” (ADAMS Accession No. ML18093B087); 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 Management Directive 8.4, because, as explained in this DG, licensees are not required to comply with the positions set forth in this DG.

#### **IV. Specific Requests for Comments**

In addition to the general request for comments on DG-1362, the NRC is also seeking specific comments that address the following questions:

1. Prolonged retention of peer review exceptions and deficiencies, which are more commonly referred to as Facts and Observations (F&Os), has the potential to reduce confidence in the implementation of risk-informed programs and increase licensing and potential inspection review resources. As part of a licensee's base PRA model configuration control process, should licensees periodically close all F&Os using one of the two relevant processes (i.e., a focused-scope peer review or an independent assessment team closure review) in NEI 17-07, Revision 2?

2. What should be the periodicity for completion of these closure processes?

Dated: June 26, 2020.

For the Nuclear Regulatory Commission.

/RA/

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