

NUCLEAR REGULATORY COMMISSION

[NRC-2022-0052]

**Acceptability of Probabilistic Risk Assessment Results for Advanced Non-Light
Water Reactor Risk-Informed Activities**

AGENCY: Nuclear Regulatory Commission.

ACTION: Regulatory guide for trial use; request for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing for public comment and for trial use, a new regulatory guide (RG) 1.247, "Acceptability of Probabilistic Risk Assessment Results for Non-Light Water Reactor Risk-Informed Activities." This new guidance describes one acceptable approach for determining whether the acceptability of the probabilistic risk assessment (PRA) used to support a PRA application is sufficient to provide confidence in the results for non-light water reactors (NLWRs) and risk-informed activities. As a trial RG, this issuance does not provide final staff positions and the guidance within may be revised based on experience obtained by the NRC with its use after its publication.

DATES: Submit comments by **May 24, 2022**. Comments received during this public comment period will be considered and responded to. The public comment period will be followed by a 2-year trial use period. At any time during the trial use period, a member of the public may 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. This trial use period may be extended,

as necessary, based on the experience obtained. After the trial use period, the NRC staff will develop and issue a draft RG that will include the stakeholder feedback and experience gained from use of the trial RG. The draft RG issuance will also provide an additional formal public comment opportunity, with feedback considered prior to final RG publication.

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-2022-0052**. 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 accessing 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, Michelle Gonzalez telephone: 301-415-5661, email: Michelle.Gonzalez@nrc.gov, or Harriet Karagiannis, telephone: 301-415-2493, email: Harriet.Karagiannis@nrc.gov. These individuals are staff in 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-2022-0052** 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 Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2022-0052**.

- **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:** 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 8:00 a.m. and 4:00 p.m. (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-2022-0052** 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 this new trial RG in the NRC's "Regulatory Guide" series and requesting public comment. 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.

This RG titled, "Acceptability of Probabilistic Risk Assessment Results for Non-Light Water Reactor Risk-Informed Activities," is designated as a trial use RG 1.247 and is available in ADAMS under Accession No. ML21235A008. It describes one acceptable

approach for determining whether the acceptability of the PRA 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 NLWRs for implementing the requirements in Part 50 and 52 of title 10 of the *Code of Federal Regulations* (10 CFR), or future applicable regulations. In addition, this RG is intended to be consistent with the NRC's PRA Policy Statement and reflects and endorses, with staff exceptions and clarifications, national consensus PRA standards provided by standards development organizations and guidance provided by nuclear industry organizations.

It is issued as a trial RG since the staff has determined that additional implementation experience would better inform draft and final staff positions. Such revisions would involve the development of a draft RG that would include lessons learned and public comments from use of this trial RG. The draft RG would also be available for public comment prior to issuance of a final RG. Therefore, the staff positions included in this trial RG could be different than the ones that would be included in the draft and final RG.

The staff is also issuing a regulatory analysis (ADAMS Accession No. ML21235A010). The staff develops a regulatory analysis to assess the value of issuing this new regulatory guide as well as alternative courses of action.

III. Backfitting, Forward Fitting, and Issue Finality

This trial RG does not establish a staff position for purposes of 10 CFR 50.109, "Backfitting" or constitute forward fitting as that term is defined and described in NRC Management Directive (MD) 8.4, "Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests" (ADAMS Accession No. ML18093B087). Any changes to this trial RG, such as withdrawal or addition of or modification to staff positions based on experience gained during the trial use period, prior to issuing a final

RG will not be considered to be backfitting as defined in 10 CFR 50.109. This will ensure that the lessons learned from the regulatory trial use of the pilot applications of this RG are adequately addressed and that this guidance is sufficient to enhance regulatory stability in the review and approval of risk-informed applications for non-light water reactors.

Dated: March 18, 2022.

For the Nuclear Regulatory Commission.

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