

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

[Docket No. PRM-50-121; NRC-2020-0055]

Voluntary Adoption of Revised Design Basis Accident Dose Criteria

AGENCY: Nuclear Regulatory Commission.

ACTION: Petition for rulemaking; notice of docketing, and request for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) has received a petition for rulemaking from John G. Parillo dated November 23, 2019, requesting that the NRC develop a voluntary rule allowing licensees to adopt revised design basis accident dose acceptance criteria that reflect modern health physics recommendations and modern plant designs, that better balance the protection of the control room operator and of the public, and that relieve the regulatory burden associated with meeting the current control room dose criterion. The petition was docketed by the NRC on February 19, 2020, and has been assigned Docket No. PRM-50-121. The NRC is examining the issues raised in PRM-50-121 to determine whether they should be considered in rulemaking. The NRC is requesting public comment on this petition at this time.

DATES: Submit comments by August 10, 2020. Comments received after this date will be considered if it is practical to do so, but the NRC is able to assure consideration only for comments received on or before this date.

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-2020-0055. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: Carol.Gallagher@nrc.gov. For technical questions contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **E-mail comments to:** Rulemaking.Comments@nrc.gov. If you do not receive an automatic e-mail reply confirming receipt, then contact us at 301-415-1677.

- **Mail comments to:** Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Rulemakings and Adjudications 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: Mark Lintz, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-4051.

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC-2020-0055 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-2020-0055.

- **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 e-mail to pdr.resource@nrc.gov. The petition is available in ADAMS under Accession No. ML20050M894.

- **Attention:** The [Public Document Room \(PDR\)](#), 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 or call 1-800-397-4209 between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays.

B. Submitting Comments

Please include Docket ID NRC-2020-0055 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 <http://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. The Petitioner and Petition

The petition for rulemaking was filed by John Parillo, a private citizen. The petition requests the NRC revise its regulations to allow power reactor licensees to adopt revised accident dose acceptance criteria as an alternative to the accident dose criteria specified in § 50.67, "Accident source term." The revised accident dose criteria would be described in a separate voluntary rule § 50.67(a) specifying a uniform value of 100 milli-Sieverts (10 rem) for offsite locations and for the control room. The petition may be found in ADAMS at Accession No. ML20050M894.

III. Discussion of the Petition

The petition states that the NRC design basis accident dose criteria and the resulting design of accident mitigation systems could be perceived to emphasize protection of the control room operator over protection of the public. The control room criterion restricts the calculated 30-day accident dose to the annual occupational limit of 5 rem while the offsite dose criteria allows for a calculated dose of 25 rem in 2 hours. The petition states that the offsite dose criteria were derived from the siting practices of the earliest reactors and do not reflect current health physics knowledge or modern plant construction. As a result, the petition argues that the design of accident mitigation systems may not be optimized for protecting public health and safety, and that the control room accident dose criterion has proven to be challenging to demonstrate with most plants having very little margin to meet the regulation.

The petition proposes an alternative, voluntary rule that would allow licensees to adopt revised accident dose criteria that the petition asserts resolve the concerns identified above.

IV. Conclusion

The NRC has determined that the petition meets the threshold sufficiency requirements for docketing a petition for rulemaking under 10 CFR 2.803, "2.803 Petition for rulemaking—NRC action." The NRC is examining the merits of the issues raised in PRM-50-121 to determine whether these issues should be considered in rulemaking.

Dated this 12th day of May, 2020.

For the Nuclear Regulatory Commission.

/RA/

Annette L. Vietti-Cook,
Secretary of the Commission.