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## **NUCLEAR REGULATORY COMMISSION**

### **10 CFR Part 50**

**[NRC-2004-0006, NRC-2002-0018]**

**RIN 3150-AH29**

### **Risk-Informed Changes to Loss-of-Coolant Accident Technical Requirements**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Rulemaking activity; discontinuation.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is discontinuing a rulemaking activity titled, "Risk-Informed Changes to Loss-Of-Coolant Accident Technical Requirements."

The purpose of this action is to inform members of the public of the discontinuation of this rulemaking and to provide a brief discussion of the NRC's decision to discontinue it. This rulemaking activity will no longer be reported in the NRC's portion of the Unified Agenda of Regulatory and Deregulatory Actions (the Unified Agenda).

**DATES:** Effective [**INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER***], the rulemaking activity discussed in this document is discontinued.

**ADDRESSES:** Please refer to Docket ID NRC-2004-0006 for the rulemaking and Docket ID NRC-2002-0018 for the petition for rulemaking (PRM), PRM-50-75, when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID NRC-2004-0006 for the rulemaking and Docket ID NRC-2002-0018 for PRM-50-75. 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.

- **NRC’s Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select “ADAMS Public Documents” and then 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](mailto:pdr.resource@nrc.gov). The ADAMS accession number for each document referenced in this document (if that document is available in ADAMS) is provided the first time that a document is referenced.

- **NRC’s PDR:** You may examine and purchase copies of public documents at the NRC’s PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

**FOR FURTHER INFORMATION CONTACT:** Robert Beall, Office of Nuclear Reactor Regulations, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-3874; e-mail: [Robert.Beall@nrc.gov](mailto:Robert.Beall@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

**Table of Contents**

- I. Background
- II. Process for Discontinuing Rulemaking Activities
- III. Discussion
- IV. Petition for Rulemaking (PRM-50-75)
- V. Conclusion

## I. Background

In SECY-16-0009, “Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities,” dated January 31, 2016 (ADAMS Accession No. ML16028A189), the NRC staff requested Commission approval to implement recommendations on work to be shed, de-prioritized, or performed with fewer resources. One of the items listed to be shed (i.e., discontinued) was a rulemaking titled, “Risk-Informed Changes to Loss-Of-Coolant Accident Technical Requirements,” that would have amended § 50.46 of title 10 of the *Code of Federal Regulations* (10 CFR), “Acceptance criteria for emergency core cooling systems (ECCS) for light-water nuclear power reactors” (50.46a ECCS rulemaking). In the Staff Requirements Memorandum (SRM) for SECY-16-0009, dated April 13, 2016 (ADAMS Accession No. ML16104A158), the Commission approved discontinuing the 50.46a ECCS rulemaking, and directed the NRC staff to publish a *Federal Register* notice to inform the public that the rule is being discontinued.

A discussion of the NRC's decision to discontinue the rulemaking on “Risk-Informed Changes to Loss-Of-Coolant Accident Technical Requirements” is provided in Section III of this document.

## II. Process for Discontinuing Rulemaking Activities

When the NRC staff identifies a rulemaking activity that can be discontinued, it will request, through a Commission paper, approval from the Commission to discontinue the rule. The Commission provides its decision by issuing an SRM. If the Commission approves discontinuing the rulemaking activity, the NRC staff will inform the public of the Commission's decision.

A rulemaking activity may be discontinued at any stage of the rulemaking process. For a rulemaking activity that has received public comments, the NRC staff will consider those comments before discontinuing it; however, the NRC staff will not provide individual comment responses.

After Commission approval to discontinue the rulemaking activity, the NRC staff will update the next edition of the Unified Agenda to indicate that the rulemaking is discontinued. The rulemaking activity will appear in the completed section of that edition of the Unified Agenda, but will not appear in subsequent editions.

### **III. Discussion**

In the SRM for SECY-02-0057,<sup>1</sup> "Update to SECY-01-0133, 'Fourth Status Report on Study of Risk-Informed Changes to the Technical Requirements of 10 CFR part 50 (Option 3) and Recommendations on Risk-Informed Changes to 10 CFR 50.46 (ECCS Acceptance Criteria)," dated March 31, 2003 (ADAMS Accession No. ML030910476), the Commission directed the NRC staff to prepare a proposed rule that would provide a risk-informed alternative maximum loss-of-coolant accident (LOCA) break size. On June 9, 2003, and July 24, 2003, the NRC staff held two public meetings<sup>2</sup> to obtain stakeholder feedback on this proposed rule. As a result of these interactions, the NRC staff found differences between the stated Commission objectives and industry stakeholder interests.

To reach a common understanding of the objectives of the rulemaking, the NRC staff requested additional Commission direction in SECY-04-0037, "Issues Related to Proposed Rulemaking to Risk-Inform Requirements Related to Large Break Loss-of-Coolant Accident

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<sup>1</sup> SECY-02-0057, "Update to SECY-01-0133, 'Fourth Status Report on Study of Risk-Informed Changes to the Technical Requirements of 10 CFR Part 50 (Option 3) and Recommendations on Risk-Informed Changes to 10 CFR 50.46 (ECCS Acceptance Criteria)," dated March 29, 2002 (ADAMS Accession No. ML020660607).

<sup>2</sup> Meeting Summaries: June 9, 2003 (ADAMS Accession No. ML031810178), and July 24, 2003 (ADAMS Accession No. ML032130059).

(LOCA) Break Size and Plans for Rulemaking on LOCA with Coincident Loss-of-Offsite Power,” dated March 3, 2004 (ADAMS Accession No. ML040490133). The Commission directed the NRC staff in the SRM for SECY-04-0037, dated July 1, 2004 (ADAMS Accession No. ML041830412), to determine an appropriate risk-informed alternative break size and remove breaks larger than this size from the design-basis event category.

In SECY-05-0052, “Proposed Rulemaking for ‘Risk-Informed Changes to Loss-of-Coolant Accident Technical Requirements,’” dated March 29, 2005 (ADAMS Accession No. ML050480172), the NRC staff provided a proposed rule to the Commission for approval. In the SRM for SECY-05-0052, dated July 29, 2005 (ADAMS Accession No. ML052100416), the Commission approved publication of the proposed rule.

On November 7, 2005, the NRC published the proposed rule in the *Federal Register* (70 FR 67597). After evaluating the public comments, the NRC staff completed the draft final rule language.

On October 31 and November 1, 2006, the NRC staff met with the Advisory Committee on Reactor Safeguards (ACRS) to discuss the draft final rule. In a letter dated November 16, 2006 (ADAMS Accession No. ML063190465), the ACRS recommended that the NRC staff not issue the rule in its current form and suggested numerous changes, primarily to strengthen the assurance of defense-in-depth provided for large pipe breaks.

The NRC staff evaluated the ACRS recommendations and, in SECY-07-0082, “Rulemaking to Make Risk-Informed Changes to Loss-of-Coolant Accident Technical Requirements; 10 CFR 50.46a, ‘Alternative Acceptance Criteria for Emergency Core Cooling Systems for Light Water Nuclear Power Reactors,’” dated May 16, 2007 (ADAMS Accession No. ML070180692), sought additional Commission direction on both the priority of the rule and the issues raised by the ACRS. In the SRM for SECY-07-0082, dated August 10, 2007

(ADAMS Accession No. ML072220595), the Commission approved the NRC staff's recommendations for a revised rule priority and an approach for addressing ACRS concerns and completing the final rule.

The NRC staff modified the rule by making numerous substantive changes in the draft final rule. The NRC published a supplemental proposed rule for public comment on August 10, 2009 (74 FR 40006). The NRC staff evaluated the public comments received on the supplemental proposed rule and prepared a revised draft final rule. The draft final rule language was made publicly available on May 12, 2010, in the rulemaking docket on [www.regulations.gov](http://www.regulations.gov) (NRC-2004-0006). The NRC staff prepared the final draft rule and discussed it in meetings with the ACRS subcommittee and full committee on September 22 and October 7, 2010. The ACRS provided its views on the rule to the Commission in a letter dated October 20, 2010 (ADAMS Accession No. ML102850279).

In SECY-10-0161, "Final Rule: Risk-Informed Changes to Loss-of-Coolant Accident Technical Requirements (10 CFR 50.46(a)) (RIN 3150-AH29)," dated December 10, 2010 (ADAMS Accession No. ML102210460), the NRC staff submitted a final rulemaking package to the Commission for approval. The Commission's review of the final rule was suspended to address higher-priority issues associated with the March 2011 Fukushima Dai-ichi accident. On April 20, 2012, the NRC staff requested to withdraw the 50.46a ECCS final rule from Commission consideration so that the NRC staff could review the rule and ensure its compatibility with the ongoing regulatory framework activities under Recommendation 1 of the Fukushima Near-Term Task Force report (ADAMS Accession No. ML111861807). The Commission approved the NRC staff's request in the SRM for SECY-10-0161, dated April 26, 2012 (ADAMS Accession No. ML12117A121).

In SECY-16-0009, the NRC staff recommended that the 50.46a ECCS rulemaking be discontinued. Based on interactions with the nuclear industry, the NRC staff understood that there were concerns with the potential implementation burden of the rule. The NRC staff's Regulatory Analysis for the 50.46a ECCS final rule (ADAMS Accession No. ML103230250) discussed the comments submitted by the Boiling Water Reactor Owners Group which conveyed that it would be extremely difficult to evaluate the cost-benefit due to uncertainties about the true cost of adopting the 50.46a ECCS rule. Furthermore, at a public meeting on the Risk Management Regulatory Framework paper, certain industry representatives indicated that the industry would not be interested in implementing the final rule.

As explained in SECY-16-0009, this rule would be voluntary if issued, so licensees could choose to not implement the requirements. Therefore, the NRC staff believes that there is minimal adverse impact on the NRC's mission, principles, or values by discontinuing this rulemaking. In the SRM for SECY-16-0009, the Commission approved the NRC staff's recommendation to discontinue this rulemaking.

In summary, the NRC has decided not to proceed with this rulemaking activity because there is minimal adverse impact on our mission, principles, or values and the industry has indicated that there may not be much interest in implementing the final rule.

#### **IV. Petition for Rulemaking (PRM-50-75)**

On February 6, 2002, Anthony R. Pietrangelo, on behalf of the Nuclear Energy Institute (NEI), filed PRM-50-75 requesting that the NRC amend 10 CFR 50.46 to allow licensees to use an alternative to the double-ended guillotine break of the largest pipe in the reactor coolant system (ADAMS Accession No. ML020630082). On April 8, 2002 (67 FR 16654), the NRC published a notice of receipt and request for public comment for PRM-50-75. The comment

period closed on June 24, 2002, and the NRC received 18 comment letters (ADAMS Accession No. ML082460625). The NRC staff determined that the issues raised in PRM-50-75 were appropriate for consideration and, in fact, the issues were already being considered in the 50.46a ECCS rulemaking. On November 6, 2008, the NRC published a *Federal Register* document (73 FR 66000) stating that the NRC would address the substantive comments filed in PRM-50-75 as part of the 50.46a ECCS rulemaking. In SECY-16-0009, the staff recommended discontinuing the 50.46a ECCS rulemaking and stated that PRM-50-75 would be addressed by alternative means. The NRC will issue a separate *Federal Register* document to disposition PRM-50-75.

## **V. Conclusion**

The NRC is no longer pursuing the “Risk-Informed Changes to Loss-Of-Coolant Accident Technical Requirements” rulemaking for the reasons discussed in this document. In the next edition of the Unified Agenda, the NRC will update the entry for this rulemaking and reference this document to indicate that the 50.46a ECCS rulemaking is no longer being pursued. This rulemaking activity will appear in the completed section of that edition of the Unified Agenda, but will not appear in subsequent editions. If the NRC decides to pursue a similar or related rulemaking in the future, it will inform the public through a new rulemaking entry in the Unified Agenda.

Dated at Rockville, Maryland, this 13th day of September 2016.

For the Nuclear Regulatory Commission.

**Victor M. McCree,**

*Executive Director*

*for Operations.*

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