

POLICY ISSUE
(Notation Vote)

January 26, 2017

SECY-17-0013

FOR: The Commissioners

FROM: Victor M. McCree
Executive Director for Operations

SUBJECT: DISCONTINUATION OF RULEMAKING ACTIVITY – DECOUPLING AN ASSUMED LOSS OF OFFSITE POWER FROM A LOSS-OF-COOLANT ACCIDENT, PART 50 OF TITLE 10 OF THE *CODE OF FEDERAL REGULATIONS*, APPENDIX A, GENERAL DESIGN CRITERION 35 (RIN 3150-AH43; NRC-2008-0602) – AND DENIAL OF PETITION FOR RULEMAKING (PRM-50-77; NRC-2002-0020)

PURPOSE:

To request Commission approval to discontinue the rulemaking effort to decouple the analysis assumption that a loss of offsite power (LOOP) occurs coincident with a large-break loss-of-coolant accident (LOCA); deny associated Petition for Rulemaking (PRM), PRM-50-77, “Performance Technology; Short-Time Reaction;” and publish the enclosed *Federal Register* notice (FRN) informing the public of these decisions. If approved, the rulemaking activity would no longer be reported in the Unified Agenda of Regulatory and Deregulatory Actions.

BACKGROUND:

Process for Discontinuing Rulemaking Activities

In the February 3, 2016, staff requirements memorandum (SRM) for SECY-15-0129, “Commission Involvement in Early Stages of Rulemaking” (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16034A441), the Commission approved the

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staff's recommendation in SECY-15-0129, dated October 19, 2015 (ADAMS Accession No. ML15267A759), requiring staff to request approval from the Commission in the form of a Commission paper in circumstances where the staff seeks to discontinue a rulemaking activity. Although not addressed in SECY-15-0129, the staff has adopted the approach of seeking Commission approval of an FRN to inform the public of the Commission's decision to discontinue a rulemaking activity as part of the Commission paper.

Associated Petitions for Rulemaking

A rulemaking activity proposed for discontinuation may (1) have been initiated in response to accepting one or more PRMs or (2) include issues from one or more PRMs that were accepted and added to the ongoing related rulemaking activity. Therefore, discontinuation of the rulemaking activity also requires the U.S. Nuclear Regulatory Commission (NRC) to take action to "resolve" the associated PRM(s) (normally, denial of the PRM(s)) and to inform the petitioner(s) and the public of the NRC's denial. While SECY-15-0129 did not specify what the Commission paper to discontinue rulemaking must address when the rulemaking activity to be discontinued includes one or more PRMs, discontinuing the associated rulemaking would normally allow an associated PRM to be denied for the same reasons.

DISCUSSION:

Decoupling an Assumed Loss of Offsite Power from a Loss-of-Coolant Accident

On March 31, 2003, in the SRM for 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)'" (ADAMS Accession No. ML030910476), the Commission directed the staff to proceed with a rulemaking to risk-inform the emergency core cooling system (ECCS) functional reliability requirements in General Design Criterion 35, "Emergency Core Cooling," of Appendix A, "General Design Criteria for Nuclear Power Plants" in Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, "Domestic Licensing of Production and Utilization Facilities." This proposed rulemaking would provide licensees an option to relax the current analysis requirements for considering a LOOP to occur coincident with a LOCA (the LOOP/LOCA rulemaking).

In SECY-04-0037, "Issues Related to Proposed Rulemaking to Risk-Inform Requirements Related to Large Break Loss-Of-Coolant Accident (LOCA) Break Size and Plans for Rulemaking on LOCA with Coincident Loss-of-Offsite Power," dated March 3, 2004 (ADAMS Accession No. ML040490133), the staff proposed to review a topical report, "Separation of Loss of Offsite Power from Large Break LOCA," dated April 27, 2004 (ADAMS Accession No. ML041210900), and a pilot exemption request that would be submitted by the Boiling Water Reactor Owners Group (BWROG) to relax the requirement for an assumed coincident LOOP for LOCA analysis. If found acceptable and approved by the staff, the BWROG topical report was intended to serve as the technical portion of the regulatory basis for the LOOP/LOCA rulemaking. The Commission approved this proposal in the SRM for SECY-04-0037, dated July 1, 2004 (ADAMS Accession No. ML041830412).

In parallel with the LOOP/LOCA rulemaking, the staff was pursuing a separate rulemaking (the 50.46a ECCS rulemaking (RIN 3150-AH29; NRC-2004-0006)), which would have risk-informed

the large-break LOCA ECCS analysis requirements. If promulgated as a final rule, this would have allowed both pressurized water reactors (PWRs) and boiling water reactors (BWRs) to decouple a LOOP from a LOCA for certain break sizes.

In COMSECY-07-0041, "Status of Staff Activities on Proposed Rule for Risk Informed Decoupling of Assumed Loss-of-Offsite Power from Loss-of-Coolant Accident Analyses," dated December 26, 2007 (ADAMS Accession No. ML073200076), the staff informed the Commission that if either the BWROG topical report or the final 50.46a ECCS rulemaking were not approved, it would be unlikely that a LOOP/LOCA rulemaking would be worth pursuing. In its response dated February 4, 2008 (ADAMS Accession No. ML080350177), the Commission approved the staff's request to defer the schedule for the LOOP/LOCA rulemaking and directed the staff to keep the existing Commission action on the rulemaking open, pending review of the decisions on the 50.46a ECCS final rule and the BWROG topical report.

On June 12, 2008, the BWROG withdrew its topical report from further NRC review and discontinued the effort, stating that "if ultimately approved in the form presently desired by NRC staff, adoption by licensees would most likely be prohibitively expensive" (ADAMS Accession No. ML081680048).

In SECY-09-0140, "Rulemaking Related to Decoupling an Assumed Loss of Offsite Power From a Loss-of-Coolant Accident, 10 CFR Part 50, Appendix A, General Design Criterion 35 (RIN 3150-AH43)," dated September 28, 2008 (ADAMS Accession No. ML092151078), the staff proposed three options for the Commission to consider as a path forward on the LOOP/LOCA rulemaking: (1) discontinue the LOOP/LOCA rulemaking, (2) proceed with the LOOP/LOCA rulemaking without the BWROG topical report, or (3) continue to defer the LOOP/LOCA rulemaking until implementation of the final 50.46a ECCS rulemaking. The Commission approved the third option (to defer the LOOP/LOCA rulemaking) in the SRM for SECY-09-0140, dated July 2, 2010 (ADAMS Accession No. ML101830056).

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 staff recommended that the 50.46a ECCS rulemaking be discontinued. In the 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 staff to publish an FRN to inform the public. The FRN, published October 6, 2016 (81 FR 69446), informed the public of the NRC's decision to discontinue the 50.46a ECCS rulemaking.

On June 28, 2016, and October 26, 2016, the staff held public meetings (ADAMS Accession Nos. ML16203A003 and ML16319A153, respectively) to receive external stakeholder feedback on the need for a LOOP/LOCA rulemaking. Representatives from the Nuclear Energy Institute, and the PWR and BWR Owners Groups presented their perspectives on whether the LOOP/LOCA rulemaking effort should continue. The industry stated that the conclusions from the 2008 withdrawal of the BWROG topical report remain valid in that the estimated implementation costs would be prohibitively expensive for the benefit received. In addition, industry representatives recommended that the staff devote its resources to other risk-informed licensing activities that have significantly higher industry interest (e.g., applications to implement 10 CFR 50.69, "Risk-informed categorization and treatment of structures, systems and components for nuclear power reactors," and risk-informed technical specifications).

The staff recommends discontinuing the LOOP/LOCA rulemaking activity. The staff has determined that the current regulations provide adequate protection of public health and safety, and the incremental safety improvement that is the subject of this rulemaking effort should not be regarded as involving adequate protection but instead should be regarded as a safety enhancement. This rulemaking would have provided licensees an option to relax the current analysis requirements for considering a LOOP to occur coincident with a LOCA. Based on feedback from the industry, it is unlikely that any licensee would seek licensing basis changes that would rely on the proposed rule because it would not be cost effective to do so. The issues that caused the industry to withdraw the BWROG topical report are still applicable today, and the industry has greater interest in the progress of other risk-informed licensing activities. Therefore, pursuit of this effort would likely have minimal practical impact on safety. This rulemaking could also divert resources from other efforts that would enhance safety and actually be implemented by the industry. In addition, the NRC has a limited annual budget and higher priority rulemakings under consideration. Based upon (1) the staff's assessment that there is no current adequate protection issue with respect to compliance with the current ECCS rule; (2) the information currently known to the staff in terms of the lack of significant safety benefits, (3) the industry's representations of the costs of implementing a LOOP/LOCA rule as currently envisioned by the staff, (4) the industry's representation that it would be unlikely for any licensee to voluntarily use the LOOP/LOCA rule, (5) industry's stated interest in pursuing other risk-informed licensing activities, (6) the NRC's limited annual budget, and (7) the staff's preferred focus on higher priority rulemakings, the staff recommends discontinuing the LOOP/LOCA rulemaking.

Petition for Rulemaking, PRM-50-77

A PRM, submitted by Bob Christie, Performance Technology, dated May 2, 2002 (ADAMS Accession No. ML082530041), requests that the NRC amend its regulations in Appendix A to 10 CFR Part 50 to eliminate the requirement to assume a LOOP coincident with postulated accidents. The NRC docketed this petition and assigned it Docket No. PRM-50-77. The NRC published a notice of receipt and request for comment on the PRM on June 13, 2002, (67 FR 40622), and received one comment supporting the PRM from the Strategic Teaming and Resource Sharing (STARS) organization (ADAMS Accession No. ML022490192). The NRC closed this petition on April 13, 2009 (74 FR 16802), with a commitment to consider it within the LOOP/LOCA rulemaking.

The staff recommends that PRM-50-77 be denied for the reasons provided above for discontinuing the LOOP/LOCA rulemaking activity.

RECOMMENDATION:

The NRC staff recommends that the Commission approve the following:

1. discontinuation of the LOOP/LOCA rulemaking activity on the bases set forth in this paper;
2. denial of PRM-50-77 for the same reasons; and
3. publication of the enclosed FRN informing the public that the NRC is discontinuing the LOOP/LOCA rulemaking activity and denying PRM-50-77 for the reasons set forth in this paper.

Upon Commission approval, the staff will inform the appropriate congressional committees of these actions and ensure orderly closure of the rulemaking activity in the NRC's portion of the Unified Agenda of Regulatory and Deregulatory Actions.

RESOURCES:

No additional resources are required to implement the recommendations.

COORDINATION:

The Office of the General Counsel has no legal objection to these actions.

/RA/
Victor M. McCree
Executive Director
for Operations

Enclosures:

1. Draft FRN
2. Draft letter to petitioner

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Package: ML16341A814
Paper: ML16341A820
FRN: ML16341A823
LTR to Petitioner: ML16341A830

*Via E-Mail

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