

RULEMAKING ISSUE AFFIRMATION

March 29, 2004

SECY-04-0050

FOR: The Commissioners

FROM: William D. Travers
Executive Director for Operations

SUBJECT: FINAL RULE: REVISION OF 10 CFR 50.48 TO ALLOW PERFORMANCE-BASED APPROACHES USING NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARD 805 (NFPA 805), "PERFORMANCE-BASED STANDARD FOR FIRE PROTECTION FOR LIGHT WATER REACTOR ELECTRIC GENERATING PLANTS," 2001 EDITION

PURPOSE:

To obtain Commission approval to publish the final rule and a notice of interim enforcement discretion for licensees that choose to adopt the rule.

SUMMARY:

This rule adds a new paragraph (c) to the Fire Protection Rule in Title 10, Section 50.48, of the *Code of Federal Regulations* (10 CFR 50.48). This new paragraph allows reactor licensees to voluntarily comply with the risk-informed, performance-based fire protection requirements in NFPA 805, with certain exceptions stated in the rule language, as an alternative to complying with paragraph (b) or the requirements in their fire protection license conditions. In addition, this rule amends paragraph (f) to indicate that a fire protection program that complies with NFPA 805 is deemed to be acceptable for complying with the requirements for a fire protection program of that paragraph for decommissioning plants. Licensees will need to submit a request for a license amendment to comply with NFPA 805 in order to change their licensing basis.

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BACKGROUND:

In SECY-98-058, "Development of a Risk-Informed, Performance-Based Regulation for Fire Protection at Nuclear Power Plants," dated March 26, 1998, the staff proposed to the Commission that the staff work with the NFPA and industry to develop a risk-informed, performance-based consensus standard for fire protection for nuclear power plants that could be endorsed in a future rulemaking as an alternative set of fire protection requirements. In the Staff Requirements Memorandum (SRM) of June 30, 1998, the Commission approved the staff's proposal.

On January 13, 2001, the NFPA Standards Council approved NFPA Standard 805 (NFPA 805), "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants," 2001 Edition, as an American National Standard for light water nuclear power plants. The staff submitted its rulemaking plan to revise 10 CFR 50.48 to allow licensees to use NFPA 805 in SECY-00-0009, "Rulemaking Plan, Reactor Fire Protection Risk-Informed, Performance-Based Rulemaking," dated January 13, 2000, and the Commission approved the rulemaking plan in the SRM dated February 24, 2000.

The staff submitted the proposed rule to the Commission in SECY-02-0132, "Proposed Rule: Revision of 10 CFR 50.48 to Permit Light Water Reactors to Voluntarily Adopt National Fire Protection Association (NFPA) Standard 805, 'Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants,' 2001 Edition (NFPA 805), as an Alternative Set of Risk-Informed, Performance-Based Fire Protection Requirements," dated July 15, 2002, and received the Commission's approval on October 3, 2002, to publish the proposed rule. The NRC published the proposed rule in the *Federal Register* on November 1, 2002 (67 FR 66578). The public comment period expired on January 15, 2003. The staff has evaluated the comments and prepared the final rule.

DISCUSSION:

Published in February 2001, NFPA 805 describes a methodology for existing light-water nuclear power plants to apply performance-based requirements and fundamental fire protection design elements to the determination and establishment of fire protection systems and features for all phases (modes) of operation, as well as a methodology for establishing fire protection systems and features for decommissioning and permanent shutdown. The staff evaluated NFPA 805 and determined that, in general, it is consistent with the principles for performance-based regulation contained in the SRM dated March 1, 1999, entitled, "SECY-98-144: White Paper on Risk-Informed, Performance-Based Regulation." The staff also determined that NFPA 805 contains acceptable requirements or methodologies to identify and implement fire protection systems and features as alternatives to the fire protection requirements in 10 CFR 50.48(b) or the fire protection requirements in plant license conditions.

Public Comments on the Proposed Rule

The NRC received eight letters of comment on the proposed rule. The comments were submitted by an individual, an individual representing a public interest group, a utility with a nuclear reactor, two nuclear utility groups each representing six plants with nuclear reactors, a

law firm, a law firm representing several utilities, and the Nuclear Energy Institute. Most comments supported the proposed rule and provided recommendations to enhance or modify elements of the rule. One comment opposed adoption of the proposed rule because the rule allowed performance-based approaches in lieu of deterministic requirements. The staff considered all comments and in response, made the following changes to the rule.

The NRC received several comments on the proposed requirement that licensees must submit a request for a license amendment to use methods such as fire modeling or fire probabilistic safety assessments (PSA) to comply with NFPA 805. The commenters stated that the requirement would be an unnecessary burden. In the SRM to SECY-02-0132, the Commission directed the staff to carefully review the comments regarding the need for license amendments to use methods not in NFPA 805 and to evaluate methods that could be used to approve such methods. The staff reviewed the comments and determined that prior NRC review and approval of these methods were not needed and, therefore, deleted the proposed requirement. However, the use of those methods by licensees would be subject to NRC inspection.

The NRC received comments stating that, notwithstanding the prohibition in Chapter 3 of the standard against the use of performance-based approaches for the Chapter 3 fire protection program elements and minimum design requirements, performance-based approaches should be allowed for those program elements and minimum design requirements. The staff evaluated these comments and determined that the program elements and minimum design requirements in Chapter 3 may be subject to performance-based approaches. However, the staff also determined that those program elements and minimum design requirements are of such importance to fire protection that licensees should obtain NRC approval of the proposed approach via a license amendment request.

In response to a comment on the status of the appendices of NFPA 805, the staff clarified in the statement of considerations that Appendices B, C, and D are not part of the standard and are not endorsed in the rule. These appendices discuss nuclear safety analysis, application of fire modeling, and the use of fire PSA methods, respectively. The commenter noted that, although these appendices provide useful explanatory material for users of the standard, they did not receive the same level of review and scrutiny by the NFPA Technical Committee on Fire Protection for Nuclear Facilities, the NFPA membership, or the general public during the development process. NRC endorsement of these appendices is not needed in order for licensees to comply with NFPA 805 requirements.

ACRS and CRGR Reviews

The draft final rule was reviewed by the Advisory Committee on Reactor Safeguards (ACRS) in December 2003. In March 2004, the Committee to Review Generic Requirements (CRGR) agreed to waive a briefing on the final rule. Neither committee objects to issuing the final rule.

Implementing Guidance

The staff is working with the Nuclear Energy Institute (NEI) to develop implementing guidance for NFPA 805. The staff reviewed and commented on early versions of the guidance and participated in pilots to evaluate the guidance at the Joseph M. Farley Nuclear Power Plant and the McGuire Nuclear Station in April and July 2003, respectively. On May 15, 2003, NEI submitted NEI 04-01, Revision D, "Guidance for Implementing a Risk-Informed, Performance-Based Fire Protection Program Under 10 CFR 50.48(c)," for staff review and comment. The

staff provided comments on NEI 04-01 to NEI and is working with NEI to resolve them. The staff expects to develop a draft regulatory guide endorsing a version of NEI 04-01 in mid-2004.

Implementation

The staff plans to review two initial license amendment submittals for completeness and to establish a template for subsequent submittals. However, the staff does not intend to review in depth the remaining submittals. The staff plans to monitor licensee implementation of NFPA 805, as excepted, as part of the NRC Reactor Oversight Process (ROP) regularly scheduled fire protection inspections. Inspection criteria and guidance on NFPA 805 implementation, including the use of methodologies such as fire PSAs, circuit analysis, and fire modeling will be developed and inspector training will be provided.

Enforcement Considerations

As part of the transition to the NFPA 805 regulatory structure, licensees will establish the fundamental fire protection program identified in NFPA 805. Licensees will perform a plant-wide assessment to identify fire areas and fire hazards and evaluate compliance with their existing fire protection licensing basis. This fire protection assessment is in addition to the normal licensee review of their fire protection program.

During the assessment process, licensees may identify noncompliances with their existing fire protection licensing basis which must be evaluated to restore compliance with the existing plant requirements or to establish compliance with a performance-based approach under NFPA 805. These noncompliances would be identified by the licensee as part of the fire protection assessment, entered into the licensee's corrective action program, and dispositioned for corrective action including any compensatory measures. NRC enforcement action for these noncompliances could place a burden on staff and licensee resources with little corresponding safety benefit as the licensee is already performing an enhanced review of the fire protection program. Therefore, the staff proposes that the Commission approve enforcement discretion for those fire protection noncompliances identified as part of the transition to NFPA 805.

The proposed enforcement discretion would begin upon receipt of a letter of intent from the licensee stating their intention to adopt NFPA 805 and providing a schedule for completion of the plant-wide assessment. The enforcement discretion period would be in effect for up to two years under the letter of intent and, if the licensee submits a license amendment request, would continue until the NRC approval of the license amendment request is completed. This proposal is consistent with previous enforcement discretion granted when licensees voluntarily undertake a comprehensive review and assessment.

Additionally, for licensees that submit a letter of intent within six months of the effective date of this rule, the staff is proposing enforcement discretion for the implementation of corrective action for certain existing identified fire protection noncompliances to be deferred until the licensee has transitioned to 10 CFR 50.48(c). This enforcement discretion would be provided for those noncompliances that reasonably could be corrected under 10 CFR 50.48(c) provided the noncompliances have been placed in the licensee's corrective action program, appropriate compensatory measures have been put in place, are not associated with findings that the ROP Significance Determination Process (SDP) would evaluate as Red, or would not be categorized at Severity Level I.

The proposed interim enforcement discretion policy is provided as Attachment 4.

If the Commission approves the enforcement discretion proposed above, the staff will also provide appropriate inspection guidance that noncompliances within the scope of the enforcement discretion should not be evaluated under the ROP SDP and should not be entered into the action matrix of the ROP. This action is needed to accomplish the full intent of the proposed enforcement discretion and is a new consideration resulting from the implementation of the ROP. Entering noncompliances into the action matrix of the ROP that are within the scope of the enforcement discretion could generate unwarranted increases in inspection. Precedence for this approach exists in the treatment of "Old Design Issues" under Section 06.06.a in Manual Chapter 0305, "Operating Reactor Assessment Program." In general, identification of old issues is not associated with current performance. Therefore, the staff intends to implement this approach.

Consideration of Other Rulemakings

For this rule, the staff considered the potential impact of other fire protection rulemakings on those licensees who adopt NFPA 805. Although not currently in the scope of that rulemaking, the staff notes that the rulemaking on post-fire operator manual actions may impact licensees who adopt NFPA 805 if that rule is made applicable to plants that have adopted NFPA 805.

Contents of the Final Rulemaking Package

This rulemaking package includes the final rule to be published in the *Federal Register* (Attachment 1), the final regulatory analysis (Attachment 2), the environmental assessment and finding of no significant impact (Attachment 3), and the *Federal Register* notice with the interim enforcement discretion policy (Attachment 4).

RESOURCES:

The resources to complete the implementation of NFPA 805 (for NRR: \$100K and 1.0 FTE in FY 2004 and \$35K and 0.5 FTE in FY 2005; for RES: \$250K and 1.0 FTE in FY 2004 and \$135K and 0.8 FTE in FY 2005) are included in the budget for FY 2004 and FY 2005. These resources are for the draft and final regulatory guide to endorse the implementation guidance, guidance for review of licensee amendment submittals, guidance for fire PSAs and fire models, inspection criteria, and inspector training.

COORDINATION:

The Office of the General Counsel has no legal objection to this paper. The Office of the Chief Financial Officer has reviewed this Commission paper for resource implications and has no objections. The ACRS and CRGR have no objection to issuing this final rule.

RECOMMENDATIONS:

That the Commission:

1. Approve the notice of final rulemaking for publication in the *Federal Register* (Attachment 1).
2. Approve the notice of interim enforcement discretion for publication in the *Federal Register* (Attachment 4).
3. Certify that this rule, if promulgated, will not have a negative economic impact on a substantial number of small entities. The certification is needed to satisfy requirements of the Regulatory Flexibility Act, 5 U.S.C. 605(b).
4. Note:
 - a. That the following documents will be published in the *Federal Register*:
 - the *Federal Register* notice of final rulemaking (Attachment 1), and
 - the *Federal Register* notice with the interim enforcement discretion policy (Attachment 4).
 - b. The Enforcement Web Page on the NRC's public site will be updated to reflect the new enforcement policy and the Enforcement Manual will be revised to include appropriate guidance.
 - c. The Inspection Manual will be revised to reflect that findings within the scope of the interim enforcement discretion policy will not be evaluated under the ROP SDP and will not be placed in the ROP action matrix.
 - d. That a final Regulatory Analysis has been prepared for this rulemaking.
 - e. That an Environmental Assessment has been prepared for this rulemaking.
 - f. The Chief Counsel for Advocacy of the Small Business Administration will be informed of the certification regarding economic impact on small entities and the basis for it, as required by the Regulatory Flexibility Act.
 - g. The NRC has determined that this action is not a major rule under the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA) and has confirmed this determination with the Office of Management and Budget (OMB).
 - h. Copies of the *Federal Register* notice of final rulemaking and the interim enforcement discretion policy will be distributed to all affected Commission licensees. The notices will be sent to other interested parties upon request.

- i. That a press release will be issued by the Office of Public Affairs when the rulemaking is filed with the Office of the Federal Register.
- j. The appropriate Congressional Committees will be informed.

/RA/

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Attachments: 1. Final Rule *Federal Register* Notice
2. Regulatory Analysis
3. Environmental Assessment
4. Interim Enforcement Discretion Policy *Federal Register* Notice

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PACKAGE Accession No. ML040540511
Commission Paper Accession No. ML040540518
Attachment 1 Accession No. ML040540680

Attachment 2 Accession No. ML040540542
Attachment 3 Accession No. ML033440262
Attachment 4 Accession No. ML040540548

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