POLICY ISSUE
(Notation Vote)

July 15, 2019 SECY-19-0071

FOR: The Commissioners

FROM: Margaret M. Doane
Executive Director for Operations

SUBJECT: DENIAL OF PETITION FOR RULEMAKING ON FIRE PROTECTION COMPENSATORY MEASURES (PRM-50-115; NRC-2017-0132)

PURPOSE:

To obtain Commission approval to publish the enclosed *Federal Register* notice (FR) (Enclosure 1) to deny Petition for Rulemaking (PRM)-50-115, "Petition for Rulemaking—Fire Protection Compensatory Measures," dated May 1, 2017, submitted by David Lochbaum and Paul Gunter (the petitioners) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17146A393). This paper does not address any new commitments or resource implications.

SUMMARY:

The petitioners requested that the U.S. Nuclear Regulatory Commission (NRC) issue regulations that establish acceptable conditions for the use of compensatory measures (e.g., fire watches, surveillance cameras) during periods when fire protection regulations are not met, as well as define the maximum duration for reliance on compensatory measures. The NRC staff concludes that the arguments raised in the petition do not support the requested revisions to the regulations and are not necessary because the petition does not raise any new significant safety or security concerns. Therefore, the staff recommends the denial of this petition because existing NRC regulations provide reasonable assurance of adequate protection of public health and safety.

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BACKGROUND:

On May 1, 2017, David Lochbaum and Paul Gunter on behalf of the Union of Concerned Scientists and Beyond Nuclear, respectively, submitted a PRM under Title 10 of the *Code of Federal Regulations* (10 CFR) 2.802, "Petition for rulemaking—requirements for filing." Mr. Lochbaum has since retired and Edwin Lyman is the new Nuclear Safety Project Director for Union of Concerned Scientists. The NRC assigned docket number PRM-50-115 to this petition and published a notice of docketing and request for public comment in the FR on October 6, 2017 (82 FR 46717).

The petitioners asserted that when violations of the NRC's fire protection regulations are discovered, the compensatory measures intended to provide sufficient protection until compliance is restored have not consistently been properly established. Therefore, the petitioners requested that the NRC amend its regulations to include compensatory measures that provide enforceable requirements for the licensees. In particular, the petitioners requested that the NRC issue a final rule to define when and under what conditions compensatory measures are authorized for use, and under what conditions compensatory measures that are required (e.g., 10 CFR 50.48, "Fire protection," and General Design Criterion 3, "Fire protection," of Appendix A, "General Design Criteria for Nuclear Power Plants," to 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities") are not met. The petitioners also requested that the final rule define the maximum duration for reliance on compensatory measures.

DISCUSSION:

Under 10 CFR 50.48, the NRC requires each facility to have a fire protection program and stipulates what that program must contain; the program includes a requirement for administrative controls. Through the fire protection license condition that is contained in each plant's operating license, the site's fire protection program requires that the licensee implement compensatory measures (e.g., fire watches) to fulfill fire protection objectives when required equipment does not meet the program's functionality requirements. The fire protection license condition also requires the licensee to "implement and maintain in effect all provisions of the approved fire protection program as described in the updated final safety analysis report, and as approved in the NRC safety evaluation reports."

Appendix R, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979," to 10 CFR Part 50, states that each facility must establish a fire protection program for the protection of structures, systems, and components important to safety and must have procedures, equipment, and personnel required to implement the program. As a general matter, General Design Criterion 3, "Fire protection," states that structures, systems, and components important to safety shall be designed and located to minimize, consistent with other safety requirements, the probability and effect of fires and explosions.

Issues Raised in the Petition

The staff identified three main issues in the petition, as summarized below.

Issue 1: Compensatory Measures Guidance Documents Are Not Enforceable Expectations

The petitioners asserted that fire protection compensatory measures guidance documents are not regulations and that they, therefore, convey unenforceable expectations. In particular, the

petitioners observed that the suggestions in information notices and regulatory guides are not NRC requirements or substitutes for regulations; therefore, compliance with these types of documents is not required. The petitioners requested that the NRC amend its regulations to include compensatory measures that would provide enforceable requirements for licensees.

Issue 2: Compensatory Measures Guidance Documents Are Not Clear

The petitioners asserted that guidance documents regarding compensatory measures are not clear, and therefore, create confusion for licensees, NRC inspectors and reviewers, and the public about what constitutes acceptable substitutes for compliance with fire protection regulations and the permissible durations of such substitutions. The petitioners provided examples of instances in which the NRC regions requested clarification of compensatory measures and noted that NRC inspectors frequently ask questions about the appropriateness and acceptability of fire protection compensatory measures. In addition, the petitioners asserted that the available guidance and the lack of regulatory requirements do not help NRC inspectors and industry workers determine a reasonable time period to keep compensatory measures in place. In particular, the petitioners asserted that compensatory measures have been used routinely for longstanding noncompliances with fire protection regulations and that not all fire protection compensatory measures may be acceptable for long periods of time.

Issue 3: Compensatory Measures Guidance Documents Were Not Developed through an Open Process

The petitioners asserted that, because compensatory measures guidance documents were not developed through an open process, the public did not have opportunities to provide input on the acceptability of various fire protection compensatory measures. In particular, the petitioners asserted that the public did not have an opportunity to provide feedback on the acceptability or the duration of fire protection compensatory measures as they had in regard to the acceptability of 10 CFR Part 50, Appendix R, and National Fire Protection Association (NFPA) 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants." The petitioners also asserted that because fire protection compensatory measures have been used in lieu of compliance with the regulatory requirements in 10 CFR Part 50, Appendix R, and NFPA 805 for many years, the public's legal rights have been infringed upon, and if compensatory measures will be used as a long-term protection against fire risks, the public deserves an opportunity to formally weigh in on their acceptability.

Public Comments on the Petition

The NRC received 7 public comment submissions that collectively contain 27 individual comments. The staff reviewed and considered all comments in its evaluation of the petition. These public comments fall into three main categories: (1) opposing the PRM because existing regulatory requirements are sufficient to assure adequate protection of public health and safety; (2) supporting the PRM; or (3) raising issues outside the scope of the PRM. The NRC received a comment from the Nuclear Energy Institute (NEI) that opposed PRM-50-115. Overall, NEI recommended that the NRC deny PRM-50-115 because regulatory requirements exist to ensure that fire protection compensatory measures receive appropriate attention and stated that the current regulatory framework adequately ensures protection of public health and safety. Exelon Generation Company, LLC, submitted a comment that agreed with the comments submitted by NEI.

An individual representing the International Code Council and 3 other interested individuals

submitted comments supporting the petition but did not cite relevant evidence to substantiate arguments raised by the petitioners. One commenter identified unrelated concerns about the NRC's regulations or practices that the staff determined are outside the scope of PRM-50-115.

Staff Technical Evaluation

The sections below summarize the staff's evaluation of the three main issues identified in the petition. The FR notice (Enclosure 1) provides additional details of the staff's technical evaluation.

Issue 1: Compensatory Measures Guidance Documents Are Not Enforceable Expectations

The petitioners are correct that guidance documents referenced in the petition (i.e., regulatory guides) are not directly enforceable. Regulatory guides provide guidance to licensees on implementing specific parts of the NRC's regulations, techniques used by the NRC in evaluating specific problems or postulated accidents, and data needed by the NRC in its review of applications for licenses.

Under 10 CFR 50.48(a), the NRC requires each facility to have a fire protection program. This provision stipulates what the fire protection program must contain and includes a requirement for administrative controls. Further, a plant's operating license requires fire protection compensatory measures through the fire protection license condition. The fire protection license condition requires the licensee to "implement and maintain in effect all provisions of the approved fire protection program as described in the updated final safety analysis report, and as approved in the NRC Safety Evaluation Reports." Failing to appropriately implement the fire protection compensatory measures would, therefore, be an enforceable violation of the plant's operating license. The provisions of 10 CFR 50.48(a) require, among other things, that any change to the approved fire protection program meet General Design Criterion 3 of Appendix A to Part 50 and that the change must be retained as a record pursuant to 10 CFR 50.48(a)(3). The licensee's changes to the approved fire protection program are subject to inspection. Thus, the current framework ensures adequate protection of public health and safety.

Issue 2: Compensatory Measures Guidance Documents Are Not Clear

Under 10 CFR 50.48(a), the NRC requires each power reactor licensee to have a fire protection program. This provision stipulates what the fire protection program must contain and, as noted above, includes a requirement for administrative controls. Plants operate with fire protection compensatory measures stipulated by their approved fire protection program. Expectations for fire protection compensatory measures are explicitly described for each facility in a license condition and related fire protection program and are well understood by the licensees and the NRC.

The NRC has clarified regulatory expectations through guidance and has issued a number of letters and generic communications to reactor licensees regarding the use of compensatory measures. For example, Section 07.03, "Compensatory Measures," of Inspection Manual Chapter 0326, "Operability Determinations and Functionality Assessments for Conditions Adverse to Quality or Safety," dated January 31, 2014 (ADAMS Accession No. ML13274A578), provides guidance for using compensatory measures as interim actions until final corrective action to resolve the condition is completed. To date, completed evaluations have not indicated an appreciable increase in plant risk as a result of impairments (i.e., blocked sprinkler heads,

inoperable smoke detectors, and degraded fire barriers) or the implementation and reliance on compensatory measures.

Additionally, the NRC issued Regulatory Issue Summary 2005-07, "Compensatory Measures To Satisfy the Fire Protection Program Requirements," dated April 19, 2005 (ADAMS Accession No. ML042360547), which provides industry guidance on implementing different types of compensatory measures or a combination of measures that are based on risk insights.

In the case of fire protection requirements, the NRC has concluded that compensatory measures need not be time-limited even though they are not expected to remain permanently in place. Generic Letter 86-10, "Implementation of Fire Protection Requirements," states that the NRC expects compensatory measures to be temporary and to remain in place until final corrective actions are completed to resolve the condition that triggered the compensatory measures. Additionally, Generic Letter 91-18, "Information to Licensees Regarding Two NRC Inspection Manual Sections of Resolution of Degraded and Nonconforming Conditions and on Operability," states that the timeliness of the corrective action should be commensurate with the safety significance of the issue. The NRC recognizes that some compensatory measures have existed for an extended period of time. Although a reliance on compensatory measures for extended periods is not ideal, the fact that some of these measures have existed for longer periods than desired does not introduce a safety concern. It is important to note that the majority of long-term compensatory measures that were in place for noncompliances with fire protection regulations were put in place for regulatory issues that were the subject of Enforcement Guidance Memoranda, or for facilities that were transitioning their licensing basis to meet the criteria of 10 CFR 50.48(c); such noncompliances have since been corrected.

The fire protection programs at nuclear power plants are built upon the concept of defense-in-depth with layers of protective features. The technical deficiencies being compensated do not invalidate the defense-in-depth approach. The defense-in-depth approach remains effective because the three echelons for fire protection[1] continue to be implemented.

Issue 3: Compensatory Measures Guidance Documents Were Not Developed Through an Open Process

The NRC has a longstanding practice of conducting its regulatory responsibilities in an open and transparent manner. Consistent with the NRC Approach to Open Government, the NRC keeps the public informed of the agency's regulatory, licensing, and oversight activities. The NRC views openness as a critical element for achieving the agency's mission to ensure the safe use of radioactive materials for beneficial civilian purposes while protecting people and the environment. Based on the NRC's Principles of Good Regulation and Organizational Values, the agency issues its draft regulations and draft guidance documents for stakeholder and public comment. After considering the comments received, the NRC publishes the final version of the regulation or guidance document. The NRC also follows the process to consider the cumulative effects of regulation by engaging with external stakeholders throughout rulemaking and related regulatory activities.

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[1] (1) Preventing the fire from starting, i.e., plants maintain fire safety by taking measures to minimize the likelihood that fires might occur; (2) rapidly detecting, controlling, and promptly extinguishing those fires that do occur, i.e., plants establish fire protection systems (sprinklers, fire water systems, etc.) to extinguish (and minimize the consequences of) any fires that do occur; and (3) protecting structures, systems, and components important to safety so that a fire not promptly extinguished by the fire suppression activities will not prevent the safe shutdown of the plant.

The NRC provided sufficient opportunities for public comment in the development of guidance documents related to fire protection compensatory measures, and the public had many opportunities to participate. For example, the removal of fire protection requirements from technical specifications was based on a 1987 Commission "Interim Policy Statement on Technical Specification Improvements for Nuclear Power Reactors," on which the Commission took public comments (52 FR 3788). Subsequently, each licensee sought a technical specifications change through the license amendment process under 10 CFR 50.90, "Application for Amendment of License, Construction Permit, or Early Site Permit," which gives the public an opportunity to request a hearing on the amendment application or provide comments on it. Additionally, the NRC issued Regulatory Guide 1.189, "Fire Protection for Nuclear Power Plants," for public comment as Draft Regulatory Guide DG-1214 on April 21, 2009 (ADAMS Accession No. ML090070476). The staff dispositioned 97 public comments on DG-1214 on October 31, 2009 (ADAMS Accession No. ML092580570). The NRC held a public meeting on May 20, 2009 (ADAMS Accession Nos. ML091240146 and ML091480283), to discuss comments and questions on DG-1214; and the Advisory Committee on Reactor Safeguards also held a meeting on October 9, 2009 (ADAMS Accession No. ML092880515), on DG-1214.

RECOMMENDATION:

The staff completed an evaluation of the petition and determined that the petitioners' assertions did not raise any significant safety or security concerns. In addition, the staff disagrees with the arguments presented in the petition and concludes that the requested amendments are not necessary. Therefore, the staff recommends that the Commission deny PRM-50-115 because existing NRC regulations provide reasonable assurance of adequate protection of public health and safety.

The staff requests the Commission's approval to publish the enclosed FR notice denying PRM-50-115 (Enclosure 1). The enclosed letter for signature by the Secretary of the Commission (Enclosure 2) informs the petitioners of the Commission's decision to deny the petition. The staff will also inform the appropriate congressional committees of the Commission's decision.

RESOURCES:

This paper does not address any new commitments or resource implications.

COORDINATION:

The Office of the General Counsel has reviewed this package and has no legal objection to the denial of the petition.

Margaret M. Doane
Executive Director for
Operations

Enclosures:
1. *Federal Register* notice
2. Letter to the Petitioner

SUBJECT: DENIAL OF PETITION FOR RULEMAKING ON FIRE PROTECTION COMPENSATORY MEASURES (PRM-50-115; NRC-2017-0132) DATED July 15, 2019

ADAMS Accession Nos: Package: ML18354A868, SECY: ML18354A869, FRN: ML18113A551, LTR to Pet: ML18354A870 *Concurrence via email

OFFICE	NMSS/DRM/RASB/PM	QTE*	NMSS/DRM/RRPB/RS*	NMSS/DRM/RRPB/BC*	NMSS/DRM/RASB/BC*
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DATE	12/20/2018	1/14/2019	1/14/2019	2/6/2019	2/27/2019
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DATE	5/24/2019	6/27/2019	7/15/19		

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