



POLICY ISSUE **(Notation Vote)**

December 20, 2021

SECY-21-0112

FOR: The Commissioners

FROM: Daniel H. Dorman
Executive Director for Operations

SUBJECT: DENIAL OF PETITION FOR RULEMAKING ON DETERMINING WHICH
STRUCTURES, SYSTEMS, COMPONENTS, AND FUNCTIONS ARE
IMPORTANT TO SAFETY (PRM-50-112; NRC-2015-0213)

PURPOSE:

The purpose of this paper is to request Commission approval to deny a petition for rulemaking (PRM) that requested the U.S. Nuclear Regulatory Commission (NRC) amend its regulations at Section 50.2 of Title 10 of the *Code of Federal Regulations* (10 CFR), "Definitions," to add a set of specific criteria for determining which structures, systems, and components (SSCs) and functions are important to safety, and to publish a notice of denial in the *Federal Register*. This paper does not address any new commitments or resource implications.

BACKGROUND:

Mr. Kurt Schaefer (the petitioner) filed a PRM with the NRC on July 20, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15278A208), as supplemented on August 31, 2015 (ADAMS Accession No. ML15278A211). The petitioner requested that the NRC amend its regulations in 10 CFR 50.2 to create a definition for "important to safety" and add a set of specific criteria for determining which SSCs and functions are "important to safety." While the petitioner acknowledged that the current regulatory framework defines which SSCs are classified as "safety-related," he also stated the regulations do not "provide an equivalent set of criteria for determining which non-safety-related SSCs are

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‘important to safety.’” The petitioner also indicated that there is very little agreement about which non-safety-related SSCs should be categorized as “important to safety.”

The NRC assigned docket number PRM-50-112 to this petition and published a notice of docketing and request for comment in *Federal Register* on January 6, 2016 (81 FR 410). The timeline for resolving the petition was established consistent with the lower priority of the petition and in consideration of the large number of high priority rulemakings at the time this petition for rulemaking was submitted. The public comment period closed on March 21, 2016. The NRC received 12 public comment submissions. The NRC has summarized the comment submissions in the proposed *Federal Register* notice (Enclosure 1) and provided the NRC’s response to the comment submissions in a separate document (Enclosure 2).

DISCUSSION:

Petitioner’s Request

The petitioner requested that the NRC amend 10 CFR 50.2 to include a specific definition of “important to safety” for SSCs and functions at nuclear power plants as provided in the petition. The petitioner asserted that the regulations “do not provide an equivalent set of criteria for determining which non-safety-related SSCs are ‘important to safety.’” The petitioner described the historical confusion over the distinction “important to safety” and “safety-related.” The petitioner recognized that NRC Generic Letter (GL) 84-01, “NRC Use of the Terms, ‘Important to Safety’ and ‘Safety Related,’” dated January 5, 1984 (ADAMS Accession No. ML031150515), states that “important to safety” encompasses the broad scope of equipment covered by Appendix A, “General Design Criteria for Nuclear Power Plants,” to 10 CFR Part 50, “Domestic licensing of production and utilization facilities,” but does not “provide a specific set of criteria for determining which non-safety-related SSCs are to be categorized as ‘important to safety.’” The petitioner further stated that numerous regulations and NRC guidance documents use the term “important to safety” with “no specific criteria that determines what are the applicable SSCs.”

The full text of the petitioner’s proposal is contained in his July 20, 2015, submittal, as supplemented on August 31, 2015.

Public Comments

The NRC received 12 public comment submissions from 4 individuals (1 individual submitted 2 comments), 1 reactor licensee, and 6 interest groups. Of the 12 public comment submissions received, 7 opposed the petition, 3 supported it, and 2 were from the petitioner responding to the other public comments received. Although three of the public comment submissions were submitted after the comment period closed, the NRC considered them in the analysis of the petition. The NRC has summarized the comment submissions in the proposed *Federal Register* notice (Enclosure 1) and provided the NRC’s response to the comment submissions in a separate document (Enclosure 2).

Summary of Petition Evaluation

As part of this review, the NRC staff considered the petitioner’s original request, the petitioner’s supplemental letter, and the public comments received, including the petitioner’s comments responding to comments submitted by other stakeholders. The NRC staff also reviewed the relevant NRC regulations, regulatory guidance, and historic agency rulemaking documents to inform its recommendation to deny the petition. The NRC staff notes that on April 5, 2021, the

petitioner provided additional correspondence (ADAMS Package Accession No. ML21112A226) as a response to the NRC's routine PRM-50-112 status update correspondence. The NRC staff did not identify any new or safety significant information in this additional correspondence that would lead to reconsideration of the NRC staff's recommendation.

The NRC staff agrees with the petitioner that NRC regulations do not provide a definition of "important to safety" with a set of specific criteria for determining which SSCs and their functions are "important to safety" at all nuclear power plants. As the petitioner noted, the history of the terms "important to safety" and "safety-related" has not been straightforward. However, as discussed below, despite the complicated regulatory history surrounding the use of the term "important to safety," the NRC staff recommends denying the petition. This is because, in sum, a rulemaking effort to define "important to safety" for all nuclear power plants does not address a safety or security concern for nuclear power plants under 10 CFR Part 50 and 10 CFR Part 52, "Licenses, certifications, and approval for nuclear power plants," and the existing NRC regulations, guidance, and procedures adequately address the issue raised in the petition.

Historic Guidance and Rulemaking Activity on Defining "Important to Safety"

The evolution of the different uses of safety classification terms at the NRC has a lengthy, complicated regulatory history. For example, the meaning of "important to safety" and "safety-related" was a topic of discussion following the accident at Three Mile Island Nuclear Station (TMI), Unit 2, in 1979 and during the subsequent litigation. Specifically, in the Atomic Safety and Licensing Appeal Board decision in the matter of Metropolitan Edison Company, et al. (TMI Unit 1), dated May 26, 1983 (ALAB-729, 17 NRC 814 (1983)), the Appeal Board confirmed the distinction between the use of the terms "important to safety" and "safety-related" during the litigation of the restart of the TMI Unit 1 nuclear power plant.

Since the TMI Unit 2 accident evaluation, numerous NRC documents have addressed the distinction between the "important to safety" and "safety-related" classifications of SSCs at nuclear power plants. For example, the NRC staff documented its position on the meaning of "important to safety" in a staff memorandum dated November 20, 1981, from Harold R. Denton, Director, Office of Nuclear Reactor Regulation (NRR), to all NRR personnel (ADAMS Accession No. ML111230453). This memorandum specifies the NRC staff's proper use of "important to safety" and "safety-related." Specifically, the 1981 Denton memorandum states that "important to safety" "encompasses the broad class of plant features, covered (not necessarily explicitly) in the General Design Criteria, that contribute in [an] important way to safe operation and protection of the public in all phases and aspects of facility operation (i.e., normal operation and transient control as well as accident mitigation)" (emphasis in original). The 1981 Denton memorandum further states that "important to safety" includes "safety-related" as a subset. Subsequently, in December 1983, Harold R. Denton wrote a letter to the Utility Safety Classification Group restating the position taken in the 1981 memorandum and explaining the historical acceptance of the distinction between these terms (ADAMS Accession No. ML17150A235). The 1983 Denton letter also stated that "NRC regulatory jurisdiction involving a safety matter is not controlled by the use of terms such as 'safety related' or 'important to safety.'" GL 84-01 reiterated this distinction in terminology to nuclear power plant applicants and licensees and included the 1983 Denton letter as an enclosure.

Later that same year, in its decision on the Shoreham nuclear power plant operating license, the Commission recognized that "the history of the use of the terms 'important to safety' and 'safety-related' is tortuous and somewhat inconsistent (Memorandum and Order (CLI-84-9), "In the Matter of Long Island Lighting Company (Shoreham Nuclear Power Station, Unit 1),"

June 5, 1984 (ADAMS Accession No. ML20091K598).” As described in the Shoreham decision, the Commission initiated a rulemaking on the meaning of the terms “important to safety” in light of the need for broad public participation and the potential for significant decisions stemming from the analysis of the history of these terms. In SECY-85-119, “Issuance of Proposed Rule on the Important-to-Safety Issue,” dated April 5, 1985 (ADAMS Accession No. ML15322A003), the NRC staff provided to the Commission a proposed rule to define “important to safety” for SSCs at nuclear power plants. In SRM-SECY-85-119, dated December 31, 1985 (ADAMS Accession No. ML15322A002), the Commission, by a vote of 5-0, disapproved SECY-85-119 and directed the NRC staff to redraft the proposed rule with a revised definition of “important to safety” following guidelines set forth in the staff requirements memorandum. In SECY-86-164, “Proposed Rule on the Important-to-Safety Issue,” dated May 29, 1986 (ADAMS Accession No. ML15322A005), the NRC staff provided a revised version of a proposed regulatory definition of “important to safety” for Commission consideration and also reviewed the existing use of this term across all NRC regulations. By June 1987, three of four Commissioners voted 2 to 1 to disapprove the proposed rule, but no further action was taken. As documented in a memorandum dated June 24, 1991, from Samuel J. Chilk (ADAMS Accession No. ML15322A006), SECY-86-164 was closed on the basis that informal discussions between the staff in the NRC Office of the Executive Director for Operations and the Office of the Secretary indicated that “there may no longer be any need for the Commission to address the issues in the subject SECY paper.” Since that time, the NRC staff has not engaged in further rulemaking action to define “important to safety.”

Use of “Important to Safety” in NRC Regulations

The term “important to safety” first appeared in 10 CFR Part 50, Appendix A, published as a final rule in the *Federal Register* on February 20, 1971 (36 FR 03255). However, when the NRC developed Appendix A and Appendix B, “Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants,” to 10 CFR Part 50 in the late 1960s and early 1970s, the agency focused its regulatory activities on a deterministic approach for safety-related SSCs and allowed licensees to address much of the design and treatment of other SSCs in licensee documents. For example, historically final safety analysis reports for nuclear power plants typically have described SSCs that are not classified as “safety-related” and that have a reduced amount of NRC regulatory treatment compared with “safety-related” SSCs. Over time, the NRC developed regulations that address SSCs beyond those classified as “safety-related.” For example, the NRC specifies requirements for a wide range of SSCs, including SSCs that are important to safety but not classified as “safety-related,” in 10 CFR 50.49, “Environmental qualification of electric equipment important to safety for nuclear power plants”; 10 CFR 50.62, “Requirements for reduction of risk from anticipated transients without scram events for light-water-cooled nuclear power plants”; and 10 CFR 50.63, “Loss of all alternating current power.” This demonstrates that the NRC has already adequately addressed “important to safety” SSCs in specific regulations and regulatory programs and has done so without needing to establish a set of criteria prescribing how a licensee must identify which SSCs are important to safety. Over the last several decades, nuclear power plant applicants or licensees have not indicated confusion over this terminology, and there have been no adverse safety consequences from this approach.

Basis for Denial

Nuclear power plant applicants and licensees under 10 CFR Part 50 and 10 CFR Part 52 have demonstrated their understanding of the term “importance to safety” based on the identification of “important to safety” SSCs and their associated functions as documented in their specific

licensing basis documentation (e.g., Final Safety Analysis Reports or Design Control Documents). In addition, the NRC and licensees have a common understanding of what constitutes “important to safety” as demonstrated in the guidance documents and generic communications discussed above (e.g., the 1981 memorandum from Harold R. Denton to NRR staff, 1983 letter from Harold R. Denton to the Utility Safety Classification Group, and Generic Letter 84-01). The petitioner has not provided, and the NRC staff has not identified, a safety reason to create criteria, either prescriptive or performance based, defining “important to safety” in the NRC’s regulations. Moreover, a prescriptive approach that defines criteria for SSCs “important to safety” would likely have unintended consequences for the licensing bases of the current operating fleet and could reduce operational flexibility without providing a clear safety benefit. A rulemaking to define “important to safety” in 10 CFR 50.2 for all nuclear power plants does not have a safety benefit for nuclear power plants under 10 CFR Part 50 and 10 CFR Part 52. In sum, the NRC staff maintains that the existing regulatory framework provides adequate protection with respect to the existing treatment of “important to safety” SSCs in the regulations.

Finally, denial of this PRM does not create conflicts with, or have any effect on, ongoing NRC rulemaking activities such as the development of a technology-inclusive, risk-informed regulatory framework in 10 CFR Part 53 rulemaking (Docket ID 2019-0062).

RECOMMENDATION:

The NRC staff recommends that the Commission deny PRM-50-112 because the proposed rulemaking does not involve a significant safety or security concern and the NRC’s current regulatory framework is supported by the well-established understanding and application of the term “important to safety,” as documented in regulatory guidance, policy, and licensee and applicant documentation.

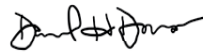
The NRC staff requests the Commission’s approval to publish the enclosed *Federal Register* notice (Enclosure 1) denying PRM-50-112. This notice provides a detailed response to the petitioner’s request. The enclosed letter for signature by the Secretary of the Commission (Enclosure 3) informs the petitioner of the Commission’s decision to deny the petition. The NRC staff also will 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 reviewed this package and has no legal objection to the denial of the petition.



Signed by Dorman, Dan
on 12/20/21

Daniel H. Dorman
Executive Director
for Operations

Enclosures:

1. *Federal Register* Notice
2. NRC Responses to Public Comments
3. Letter to the Petitioner

SUBJECT: DENIAL OF PETITION FOR RULEMAKING ON DETERMINING WHICH STRUCTURES, SYSTEMS, COMPONENTS AND FUNCTIONS ARE IMPORTANT TO SAFETY (PRM-50-112; NRC-2015-0213) DATED: December 20, 2021

ADAMS Accession No.: PKG: ML21123A177

SECY-012

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