NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

[Docket No. PRM-50-112; NRC-2015-0213]

Determining Which Structures, Systems, Components and Functions are Important to Safety

AGENCY: Nuclear Regulatory Commission.

ACTION: Petition for rulemaking; notice of docketing and request for comment.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) has received a petition for rulemaking (PRM) requesting that the NRC amend its “Domestic licensing of production and utilization facilities” regulations to define the term “important to safety” and provide a set of specific criteria for determining which structures, systems, components (SSCs), and functions are “important to safety.” The petition, dated July 20, 2015, was submitted by Kurt T. Schaefer (the petitioner) and was supplemented on August 31, 2015. The petition was docketed by the NRC on September 4, 2015, and was assigned Docket Number PRM-50-112. The NRC is examining the issues raised in this petition to determine whether it should be considered in rulemaking. The NRC is requesting public comments on this petition for rulemaking.

DATES: Submit comments by [INSERT DATE THAT IS 75 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER]. Comments received after this date will be considered if it is practical to do so, but the NRC is able to assure consideration only for comments received on or before this date.
ADDRESSES: You may submit comments by any of the following methods:

- **Federal Rulemaking Web Site:** Go to [http://www.regulations.gov](http://www.regulations.gov) and search for Docket ID NRC-2015-0213. 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.

- **E-mail comments to:** Rulemaking.Comments@nrc.gov. If you do not receive an automatic e-mail reply confirming receipt, then contact us at 301-415-1677.

- **Fax comments to:** Secretary, U.S. Nuclear Regulatory Commission at 301-415-1101.

- **Mail comments to:** Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Rulemakings and Adjudications Staff.

- **Hand deliver comments to:** 11555 Rockville Pike, Rockville, Maryland 20852, between 7:30 a.m. and 4:15 p.m. (Eastern Time) Federal workdays; telephone: 301-415-1677.

  For additional direction on obtaining information and submitting comments, see “Obtaining Information and Submitting Comments” in the SUPPLEMENTARY INFORMATION section of this document.

FOR FURTHER INFORMATION CONTACT: For technical questions contact Robert Beall, Office of Nuclear Reactor Regulation, telephone: 301-415-3847, e-mail: Robert.Beall@nrc.gov. For questions related to the PRM process contact Anthony de Jesús, Office of Administration, telephone: 301-415-1106, e-mail: Anthony.deJesus@nrc.gov. Both are staff of the U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.
SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC-2015-0213 when contacting the NRC about the availability of information for this action. You may obtain publicly-available information related to this action by any of the following methods:

- **Federal Rulemaking Web Site:** Go to [http://www.regulations.gov](http://www.regulations.gov) and search for Docket ID NRC-2015-0057.

- **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](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. The ADAMS accession number for each document referenced (if it is available in ADAMS) is provided the first time that it is mentioned in the SUPPLEMENTARY INFORMATION section.

- **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.
B. Submitting Comments

Please include Docket ID NRC-2015-0213 in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at http://www.regulations.gov as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. The Petitioner

On July 20, 2015, Mr. Kurt T. Schaefer filed a PRM with the Commission, PRM-50-112 (ADAMS Accession No. ML15278A208), which was subsequently supplemented on August 31, 2015 (ADAMS Accession No. ML15278A211). The petitioner states that he is a nuclear engineer with over 40 years of nuclear experience, and 30 years of nuclear power plant licensing experience. The petitioner claims to have taught numerous classes related to § 50.59 of title 10 of the Code of Federal Regulations (CFR), “Changes, test, and experiments.” The petitioner notes that he is a nuclear licensing contractor and consultant, and that he is “supporting utility and vendor implementation of the United Arab Emirates Federal Authority of Nuclear Regulation (FANR) version of 10 CFR 50.59.”
III. The Petition

The petitioner requests that the NRC amend 10 CFR 50.2, “Definitions,” to include a definition of “Important to safety” that provides specific criteria for determining what SSCs and functions are “important to safety.”

IV. Discussion of the Petition

The petitioner requests that the NRC amend its regulations in 10 CFR 50.2 to include a definition with specific criteria for determining what SSCs and functions are “important to safety.” The petitioner states that “[t]he nuclear industry is on its third generation of engineers and regulators with no clear definition of what is ‘important to safety’” and that “there is no excuse for not having a concise set of functional criteria defining such a used term.”

The petitioner notes that the “NRC staff’s current position is that SSCs ‘important to safety’ consists of two subcategories, ‘safety-related’ and ‘nonsafety-related’.” The petitioner asserts that while safety-related SSCs are defined in 10 CFR 50.2, “the regulations do not provide an equivalent set of criteria for determining which nonsafety-related SSCs are ‘important to safety.’” The petitioner notes that there is very little agreement about what “nonsafety-related structures, systems and components (SSCs) should be categorized as ‘important to safety’.” Furthermore, the petitioner states that “there is only a general description of what is ‘important to safety’ in 10 CFR 50 Appendix A, and the regulations do not provide a specific set of criteria for determining which SSCs are ‘important to safety’.” The petitioner states that NRC Generic Letter 84-01, “NRC use of the terms, ‘Important to Safety’ and ‘Safety Related’,,” and its attachments (January 5, 1984; ADAMS Accession No. ML031150515), sought to clarify the NRC staff’s use of these terms, but did not “provide a specific set of criteria for determining which nonsafety-related SSCs are to be categorized as ‘important to safety’.” The petitioner
asserts that this lack of clarity is problematic because “important to safety” is used “in numerous regulations and NRC guidance documents.” The petitioner notes that consequently, “there are regulations, regulatory guidance and routinely generated regulatory evaluations, based on SSCs with no specific criteria that determines what are the applicable SSCs.”

The petitioner requests that the NRC define “important to safety” as SSCs and functions that are:

a) Safety-related SSCs (including supporting auxiliaries) as defined in 10 CFR 50.2 and their associated safety-related functions;

b) Equipment and function(s) assumed or used to mitigate the anticipated operational occurrences and non-accident events evaluated in the Final Safety Analysis Report (as updated) or Design Control Document Tier 2 safety analyses;

c) Equipment and functions assumed or used to prevent or mitigate internal events that involve common cause failures and/or failures beyond the 10 CFR part 50, appendix A, single failure criterion, which have been postulated to demonstrate some specific mitigation capability in accordance with regulatory requirements, as described in the Final Safety Analysis Report (as updated) or Design Control Document Tier 2;

d) Equipment and functions whose failure or malfunction could impair the ability of other equipment to perform a safety-related function;

e) Equipment and functions requiring (for ensuring nuclear safety) elevated quality assurance or design requirements (i.e., special treatment), but not to full safety-related standards;

f) Nonsafety-related readiness functions of installed plant equipment and their associated plant condition(s) assumed, prior to the initiation of an accident, in any accident safety analysis described in the Final Safety Analysis Report (as updated) or Design Control Document Tier 2;
g) Nonsafety-related structures, systems, components and functions specifically included in the plant design to control the release of radioactive materials within 10 CFR part 20 limits, as described in the Final Safety Analysis Report (as updated) or Design Control Document Tier 2;

h) Specific (10 CFR 50.150) aircraft impact assessment design features and functional capabilities, as described in the Final Safety Analysis Report (as updated) or Design Control Document Tier 2;

i) Fukushima Dai-ichi accident mitigation related new or modified manual actions and equipment (including associated functional capabilities), as described in the current plant licensing basis; and

j) Severe accident mitigation related new or modified manual actions and equipment (including associated functional capabilities), as described in the current plant licensing basis.

V. Specific Requests for Comments

The NRC is seeking advice and recommendations from the public on the PRM. We are particularly interested in comments and supporting rationale from the public on the following:

1. On January 5, 1984, the NRC issued Generic Letter 84-01, “NRC Use of the Terms, ‘Important to Safety’ and Safety Related,’” to address concerns on the NRC use of the terms "important to safety" and "safety related" and provided the NRC staff's position on safety classification. In SECY-85-119, “Issuance of Proposed Rule on the Important-To-Safety Issue,” dated April 5, 1985 (ADAMS Accession No. ML15322A002), the NRC staff requested Commission approval to clarify the terms "important to safety" and "safety related" through rulemaking. The proposed rule would have defined these terms generally and clarified specifically the nature and extent of certain affected quality assurance requirements. The NRC staff also looked at determining what equipment should be classified as important to safety and
what requirements are imposed on this class of equipment. In the Staff Requirements Memorandum (SRM) to SECY-85-119, SRM-SECY-85-119, “Issuance of Proposed Rule on the Important-To-Safety Issue,” dated December 31, 1985 (ADAMS Accession No. ML15322A003), the Commission disapproved the NRC staff’s proposed rulemaking actions. In the SRM, the Commission informed the NRC staff that the proposed rule did not adequately differentiate nor clarify the terms "Important-to-Safety" and "Safety Related." The Commission reiterated in the SRM that it continues to believe that it is necessary to resolve the apparent confusion surrounding usage of the term "Important-to-Safety." In SECY-86-164, “Proposed Rule on the Important-To-Safety,” dated May 29, 1986 (ADAMS Accession No. ML15322A005), the NRC staff recommended changes to the proposed rule in SECY-85-119 that would address the Commission comments in the SRM to SECY-85-119. In a memo from the Secretary of the Commission dated June 24, 1991 (ADAMS Accession No. ML15322A006), the request for rulemaking in SECY-86-164 was withdrawn. Please provide any new information and analysis that could provide the basis for changes to the NRC’s regulations.

2. The NRC requests specific examples where the lack of a formal NRC definition (i.e., codified in 10 CFR chapter I) of the terms, “safety related,” and “important to safety” directly resulted in adverse consequences to external stakeholders. The NRC’s evaluation of the cost and benefits of adopting a formal definition would be enhanced if commenters provided a quantitative estimate of the costs and/or unachieved benefits due to the lack of formal definitions of these two terms.

3. What regulations would have to be revised to reflect the new definition, and what would be the nature (objective) of the revision for each provision of the regulation which must be revised?

4. What, if any, guidance would be needed to implement the new definition, and what should be the scope, level of detail, and content of the guidance?
VI. Conclusion

The NRC has determined that the petition meets the threshold sufficiency requirements for docketing a petition for rulemaking under 10 CFR 2.802, “Petition for rulemaking,” and the petition has been docketed as PRM-50-112. The NRC will examine the issues raised in PRM-50-112 to determine whether they should be considered in rulemaking.

Dated at Rockville, Maryland, this 30th day of December, 2015.

For the Nuclear Regulatory Commission.

Annette L. Vietti-Cook,
Secretary of the Commission.

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