

# U.S. NUCLEAR REGULATORY COMMISSION

## REGULATORY GUIDE 1.239



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## LICENSEE ACTIONS TO ADDRESS NONCONSERVATIVE TECHNICAL SPECIFICATIONS

### A. INTRODUCTION

#### Purpose

This regulatory guide (RG) describes a method acceptable to the U.S. Nuclear Regulatory Commission (NRC) staff for licensee actions to address nonconservative technical specifications (TS). This RG endorses the Nuclear Energy Institute (NEI) guidance in NEI 15-03, Revision 3, “Licensee Actions to Address Nonconservative Technical Specifications,” issued March 2020 (Ref. 1).

#### Applicability

This RG applies to all holders of operating licenses for nuclear power reactors issued under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, “Domestic Licensing of Production and Utilization Facilities” (Ref. 2), and all holders of power reactor combined licenses issued under 10 CFR Part 52, “Licenses, Certifications, and Approvals for Nuclear Power Plants” (Ref. 3).

#### Applicable Regulations

- 10 CFR Part 50 provides regulations for licensing production and utilization facilities.
  - 10 CFR 50.36, “Technical specifications,” establishes, in part, requirements for power reactor TS.
  - 10 CFR Part 50, Appendix B, “Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants,” establishes quality assurance program requirements.
    - Criterion XVI, “Corrective Action,” establishes corrective action requirements for conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances.

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Written suggestions regarding this guide or development of new guides may be submitted through the NRC’s public Web site in the NRC Library at <https://nrcweb.nrc.gov/reading-rm/doc-collections/reg-guides/>, under Document Collections, in Regulatory Guides, at <https://nrcweb.nrc.gov/reading-rm/doc-collections/reg-guides/contactus.html>.

Electronic copies of this RG, previous versions of RGs, and other recently issued guides are also available through the NRC’s public Web site in the NRC Library at <https://nrcweb.nrc.gov/reading-rm/doc-collections/reg-guides/>, under Document Collections, in Regulatory Guides. This RG is also available through the NRC’s Agencywide Documents Access and Management System (ADAMS) at <http://www.nrc.gov/reading-rm/adams.html>, under ADAMS Accession Number (No.) ML20294A510. The regulatory analysis may be found in ADAMS under Accession No. ML18086A685. The associated draft guides DG-1351 and DG-1351 Revision 1, may be found in ADAMS under Accession Nos. ML18086A690 and ML20142A489, respectively, and the staff responses to the public comments on DG-1351 may be found under ADAMS Accession No. ML19267A108.

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- 10 CFR 50.59, “Changes, tests and experiments,” contains requirements for the process by which licensees, under certain conditions, may make changes to their facilities and procedures as described in the final safety analysis report (as updated) without prior NRC approval.
- 10 CFR 50.72, “Immediate notification requirements for operating nuclear power reactors,” establishes requirements for the notification of the NRC related to the declaration of any of the emergency classes specified in the licensee’s approved emergency plan and the occurrence of certain non-emergency events.
- 10 CFR 50.73, “Licensee event report system,” establishes requirements for the submittal to the NRC of licensee event reports regarding certain operating events.

### **Purpose of Regulatory Guides**

The NRC issues RGs to describe methods that are acceptable to the staff for implementing specific parts of the agency’s regulations, to explain techniques that the staff uses in evaluating specific issues or postulated events, and to describe information that the staff needs in its review of applications for permits and licenses. Regulatory guides are not NRC regulations and compliance with them is not required. Methods and solutions that differ from those set forth in RGs are acceptable if supported by a basis for the issuance or continuance of a permit or license by the Commission.

### **Paperwork Reduction Act**

This RG provides voluntary guidance for implementing the mandatory information collections in 10 CFR Parts 50 and 52 that are subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et. seq.). These information collections were approved by the Office of Management and Budget (OMB), approval numbers 3150-0011 and 3150-0151. Send comments regarding this information collection to the Information Services Branch (T6-A10M), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to [Infocollects.Resource@nrc.gov](mailto:Infocollects.Resource@nrc.gov), and to the OMB reviewer at: OMB Office of Information and Regulatory Affairs (3150-0011 and 3150-0151), Attn: Desk Officer for the Nuclear Regulatory Commission, 725 17th Street, NW Washington, DC 20503; e-mail: [oir\\_submission@omb.eop.gov](mailto:oir_submission@omb.eop.gov).

### **Public Protection Notification**

The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

## B. DISCUSSION

### Reason for Issuance

This RG provides guidance for licensee compliance with the TS requirements in 10 CFR 50.36, the reporting requirements in 10 CFR 50.72 and 10 CFR 50.73, and the quality assurance requirements in Criterion XVI of 10 CFR Part 50, Appendix B. This RG endorses NEI 15-03, Revision 3.

### Background

- 10 CFR 50.36 specifies, in part, the requirements for power reactor TS.
- 10 CFR 50.36(a) requires applicants for utilization facility licenses to include a summary statement of the bases or reasons for proposed TS, other than those covering administrative controls, but the bases shall not become part of the TS.
- 10 CFR 50.36(b) requires each license authorizing operation of a utilization facility to include TS, which are to be derived from the analyses and evaluation included in the safety analysis report, and amendments thereto, submitted pursuant to 10 CFR 50.34, “Contents of applications; technical information.” The Commission may include such additional TS as the Commission finds appropriate.
- 10 CFR 50.36(c) requires, in part, the items in the following categories to be included in TS. For this RG, the most relevant categories are the following:
  - *Safety limits, limiting safety system settings, and limiting control settings.*
    - Safety limits for nuclear reactors are limits on important process variables that are found to be necessary to reasonably protect the integrity of certain physical barriers that guard against the uncontrolled release of radioactivity. If any safety limit is exceeded, the reactor must be shut down.
    - Limiting safety system settings for nuclear reactors are settings for automatic protective devices related to those variables that have significant safety functions. When a limiting safety system setting is specified for a variable on which a safety limit has been placed, the setting must be so chosen that automatic protective action will correct the abnormal situation before a safety limit is exceeded. If, during operation, it is determined that the automatic safety system does not function as required, the licensee shall take appropriate action, which may include shutting down the reactor.
  - *Limiting conditions for operation.* Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for the safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action the TS permit until the condition can be met.
  - *Surveillance requirements.* Surveillance requirements are related to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, the facility operates within safety limits, and the limiting conditions for operation are met.

- *Design features.* Design features of the facility include materials of construction and geometric arrangements that, if altered or modified, would have a significant effect on safety and are not covered in the categories listed above.
- *Administrative controls.* Administrative controls are the provisions related to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure operation of the facility in a safe manner.

Operating licenses for nuclear power reactors are required to include TS. In its final policy statement on TS improvements for nuclear power reactors (Ref. 4), the Commission stated, in part, the following:

“The purpose of Technical Specifications is to impose those conditions or limitations upon reactor operation necessary to obviate the possibility of an abnormal situation or event giving rise to an immediate threat to the public health and safety...and establishing on them certain conditions of operation which cannot be changed without prior Commission approval.”

Occasionally, licensees have determined that the TS may be nonconservative. Examples include, but are not limited to, an improper or inadequate TS value, required action, or completion time. When this occurs, in the interim, licensees typically enter the nonconservative TS into their corrective action program, conduct an evaluation, and, if necessary, institute administrative controls that instruct the operators to maintain a more restrictive value for a particular parameter or to take a more conservative action.

Following the implementation of such administrative controls, most licensees have properly considered reporting under 10 CFR 50.72, 10 CFR 50.73, or both and have promptly submitted a license amendment request to correct the TS. However, some licensees have failed to comply with NRC reporting requirements, significantly delayed submitting a license amendment request to correct the TS, or improperly concluded that a license amendment request was unnecessary if administrative controls are implemented.

On December 29, 1998, the NRC issued Administrative Letter (AL) 98-10, “Dispositioning of Technical Specifications That Are Insufficient to Assure Plant Safety,” (Ref. 5), to provide guidance about the correction of nuclear power reactor TS when they are found to contain nonconservative values or specify incorrect actions. Since the issuance of AL 98-10, both the NRC and nuclear power reactor licensees have identified the need for additional guidance. Based on a suggestion at the 2014 NRC Regulatory Information Conference, NEI developed NEI 15-03 to provide guidance on dispositioning nonconservative TS. Concurrent with the issuance of this RG, the NRC is also withdrawing AL 98-10.

### **Consideration of International Standards**

The International Atomic Energy Agency (IAEA) works with member states and other partners to promote the safe, secure, and peaceful use of nuclear technologies. The IAEA develops Safety Requirements and Safety Guides for protecting people and the environment from harmful effects of ionizing radiation. This system of safety fundamentals, safety requirements, safety guides, and other relevant reports, reflects an international perspective on what constitutes a high level of safety. To inform its development of this RG, the NRC considered IAEA Safety Requirements and Safety Guides pursuant

to the Commission's International Policy Statement and Management Directive and Handbook 6.6.<sup>1</sup> The NRC staff did not identify any IAEA Safety Requirements or Guides with information related to the topic of this RG.

### **Documents Discussed in Staff Regulatory Guidance**

This RG endorses the use of a third-party guidance document, NEI 15-03, Revision 3. This third-party guidance document may contain references to other codes, standards or third-party guidance documents ("secondary references"). If a secondary reference has itself been incorporated by reference into NRC regulations as a requirement, then licensees and applicants must comply with that standard as set forth in the regulation. If the secondary reference has been endorsed in an RG as an acceptable approach for meeting an NRC requirement, then the standard constitutes a method acceptable to the NRC staff for meeting that regulatory requirement as described in the specific RG. If the secondary reference has neither been incorporated by reference into NRC regulations nor endorsed in an RG, then the secondary reference is neither a legally-binding requirement nor a "generic" NRC approved acceptable approach for meeting an NRC requirement. However, licensees and applicants may consider and use the information in the secondary reference, if appropriately justified, consistent with current regulatory practice, and consistent with applicable NRC requirements.

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<sup>1</sup> IAEA Safety Requirements and Guides may be found at [WWW.IAEA.ORG/](http://WWW.IAEA.ORG/) or by writing the International Atomic Energy Agency, P.O. Box 100 Wagramer Strasse 5, A-1400 Vienna, Austria; telephone (+431) 2600-0; fax (+431) 2600-7; or e-mail [Official.Mail@IAEA.Org](mailto:Official.Mail@IAEA.Org). It should be noted that some of the international recommendations do not correspond to the requirements specified in the NRC's regulations and the NRC's requirements take precedence over the international guidance.

## **C. STAFF REGULATORY GUIDANCE**

This RG endorses the guidance in NEI 15-03, Revision 3, as a method acceptable to the NRC staff for licensee actions to address nonconservative technical specifications.

## **D. IMPLEMENTATION**

The NRC staff may use this regulatory guide as a reference in its regulatory processes, such as licensing, inspection, or enforcement. However, the NRC staff does not intend to use the guidance in this regulatory guide to support NRC staff actions in a manner that would constitute backfitting as that term is defined in 10 CFR 50.109, “Backfitting,” and as described in NRC Management Directive 8.4, “Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests” (Ref. 6), nor does the NRC staff intend to use the guidance to affect the issue finality of an approval under 10 CFR Part 52, “Licenses, Certifications, and Approvals for Nuclear Power Plants.” The staff also does not intend to use the guidance to support NRC staff actions in a manner that constitutes forward fitting as that term is defined and described in Management Directive 8.4. If a licensee believes that the NRC is using this regulatory guide in a manner inconsistent with the discussion in this Implementation section, then the licensee may file a backfitting or forward fitting appeal with the NRC in accordance with the process in Management Directive 8.4.

## REFERENCES<sup>2</sup>

1. Nuclear Energy Institute (NEI), NEI 15-03, Revision 3, "Licensee Actions to Address Nonconservative Technical Specifications," Washington, DC, March 2020 (Agencywide Documents Access and Management System (ADAMS) Accession Package No. ML20100G899).
2. *U.S. Code of Federal Regulations* (CFR), "Domestic Licensing of Production and Utilization Facilities," Part 50, Chapter 1, Title 10, "Energy."
3. *U.S. Code of Federal Regulations* (CFR), "Licenses, Certifications and Approvals for Nuclear Power Plants," Part 52, Chapter 1, Title 10, "Energy."
4. NRC, "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors," *Federal Register*, 58 FR 39132, July 22, 1993.
5. U.S. Nuclear Regulatory Commission (NRC), Administrative Letter 98-10, "Dispositioning of Technical Specifications That Are Insufficient to Assure Plant Safety," Washington, DC, December 29, 1998 (ADAMS Accession No. ML031110108).
6. NRC, Management Directive 8.4, "Management of Backfitting, Forward Fitting, Issue Finality, and Information Requests," Washington, DC.

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<sup>2</sup> Publicly available NRC published documents are available electronically through the NRC Library on the NRC's public Web site at <http://www.nrc.gov/reading-rm/doc-collections/> and through the NRC's Agencywide Documents Access and Management System (ADAMS) at <http://www.nrc.gov/reading-rm/adams.html>. The documents can also be viewed online or printed for a fee in the NRC's Public Document Room (PDR) at 11555 Rockville Pike, Rockville, MD. For problems with ADAMS, contact the PDR staff at (301) 415-4737 or (800) 397-4209; fax (301) 415-3548; or e-mail [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov).