U.S. NUCLEAR REGULATORY COMMISSION

DRAFT REGULATORY GUIDE DG-1351

Proposed New Regulatory Guide

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DISPOSITIONING OF TECHNICAL SPECIFICATIONS THAT ARE INSUFFICIENT TO ENSURE PLANT SAFETY

A. INTRODUCTION

Purpose

This regulatory guide (RG) describes methods and procedures that are acceptable to the U.S. Nuclear Regulatory Commission (NRC) staff for dispositioning of technical specifications (TS) that are insufficient to ensure power plant safety. This RG endorses, with exceptions and clarifications, the Nuclear Energy Institute (NEI) guidance in NEI 15-03, Revision 2, "Licensee Actions to Address Nonconservative Technical Specifications" (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), including reactors that have permanently ceased operations, 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, "Domestic Licensing of Production and Utilization Facilities" provides regulations for licensing production and utilization facilities.
    - 10 CFR 50.36, "Technical specifications," establishes the requirements for power reactor TS.

This RG is being issued in draft form to involve the public in the development of regulatory guidance in this area. It has not received final staff review or approval and does not represent an NRC final staff position. Public comments are being solicited on this DG and its associated regulatory analysis. Comments should be accompanied by appropriate supporting data. Comments may be submitted through the Federal rulemaking Web site, http://www.regulations.gov, by searching for draft regulatory guide DG-1351. Alternatively, comments may be submitted to the Rules, Announcements, and Directives Branch, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Comments must be submitted by the date indicated in the *Federal Register* notice.

Electronic copies of this DG, previous versions RGs, and other recently issued guides are available through the NRC's public Web site under the Regulatory Guides document collection of the NRC Library at http://www.nrc.gov/reading-rm/doc-collections/reg-guides/. The DG is also available through the NRC's Agencywide Documents Access and Management System (ADAMS) at http://www.nrc.gov/reading-rm/adams.html, under Accession No. ML18086A690. The regulatory analysis may be found in ADAMS under Accession No. ML18086A685.

- 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.
- 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," and 10 CFR 50.73, "Licensee event report system," establish requirements for the notification of the NRC related to emergencies, ongoing events, licensing bases, potentially generic safety problems, assessing trends and patterns of operational experience, monitoring performance, identifying precursors of more significant events, and providing operational experience to the industry.

Related Guidance

- Administrative Letter (AL) 98-10, "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety" (Ref. 4).
- Inspection Manual Chapter (IMC) 0326, "Operability Determinations and Functionality Assessments for Conditions Adverse to Quality or Safety" (Ref. 5), provides guidance to NRC inspectors for reviewing licensee's determinations of operability and resolution of degraded and nonconforming conditions.

Purpose of Regulatory Guides

The NRC issues RGs to describe to the public methods that the staff considers acceptable for use in implementing specific parts of the agency's regulations, to explain techniques that the staff uses in evaluating specific problems or postulated events, and to provide guidance to applicants. Regulatory guides are not substitutes for regulations and compliance with them is not required. Methods and solutions that differ from those set forth in RGs will be deemed acceptable if they provide a basis for the findings required for the issuance or continuance of a permit or license by the Commission.

Paperwork Reduction Act

This RG provides 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), under control numbers 3150-0011 and 3150-0151. Send comments regarding this information collection to the Information Services Branch, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to Infocollects.Resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs NEOB-10202 (3150-0011, 3150-0151), Office of Management and Budget, Washington, DC 20503.

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 will aid in licensee compliance with the TS requirements in 10 CFR 50.36, the reporting requirements in 10 CFR 50.72 and 50.73, and the quality assurance requirements in Criterion XVI of 10 CFR Part 50, Appendix B. This RG endorses NEI 15-03, Revision 2, with exceptions and clarifications.

Background

Title 10 CFR, Section 50.36, "Technical specifications," specifies the requirements for power reactor TS.

- 10 CFR 50.36(a) requires applicants for utilization facilities 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. Technical specifications are required to include items in the categories listed in 10 CFR 50.36(c). 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 upon 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 permits 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, that the facility operates within safety limits, and that the limiting conditions for operation are met.

- *Design features*. Design features of the facility include materials of construction and geometric arrangements, which, 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. 6), the Commission stated, in part:

> 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 specific values or required actions in TS may be insufficient to ensure plant safety. When this occurs, licensees typically enter the nonconforming condition 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, have significantly delayed submitting a license amendment request to correct the TS, or have improperly concluded that a license amendment request was unnecessary if administrative controls are implemented.

On December 29, 1998, the NRC issued AL 98-10 to reiterate the NRC's expectations regarding 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 industry have identified the need for additional guidance. Based on a suggestion at the 2014 NRC Regulatory Information Conference, NEI 15-03 was developed to provide additional guidance on dispositioning TS that are insufficient to ensure plant safety.

Discussion on NEI 16-07 as a Secondary Reference

As discussed below in "Documents Discussed in Staff Regulatory Guidance," secondary references are not approved unless the secondary reference has itself been incorporated by reference into NRC regulations or endorsed by the NRC elsewhere as an acceptable approach for meeting an NRC requirement, subject to any applicable clarifications and/or exceptions. NEI 15- 03 specifically references NEI 16-07, "Improving the Effectiveness of Issue Resolution to Enhance Safety and Efficiency" (Ref. 7).

The NRC staff has not endorsed NEI 16-07 and does not endorse the concept of Condition Adverse to Regulatory Compliance (CARC). The NRC staff position is that the discovery of an improper or inadequate TS value or required action is considered a degraded or nonconforming condition. Whenever degraded or nonconforming conditions are discovered, 10 CFR Part 50, Appendix B, requires prompt corrective action to correct or resolve the condition. Therefore, corrective action must be taken to address a noncenservative TS (NCTS) in accordance with Criterion XVI of 10 CFR Part 50, Appendix B. Inspection Manual Chapter (IMC) 0326 provides guidance for NRC inspectors for reviewing operability determinations and resolution of degraded and nonconforming conditions at power reactors. Licensees may find the guidance in IMC 0326 useful when addressing NCTS within the Corrective Action Procedures (CAP).

Discussion on Timeliness of Corrective Actions

The concept of timeliness of corrective actions was introduced in Generic Letter 91-18, Revision 1, "Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions (Generic Letter 91-18, Revision 1)" (Ref. 8) which stated:

> In this proposed guidance, the staff stated that implementation of compensatory measures required a 10 CFR 50.59 evaluation with respect to the condition described in the final safety analysis report (FSAR) and that the staff would consider delay to have occurred when a licensee has not implemented corrective action at the first available opportunity (considering need for analysis or parts, or the need to be in cold shutdown to complete the action), in any event not to exceed the next refueling outage.

Further this concept of timeliness was also clarified in RIS 2005-20, "Revision to NRC Inspection Manual Part 9900 Technical Guidance, 'Operability Determinations & Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety'" (Ref. 9), and additional revisions to this RIS.

The staff subsequently incorporated this guidance into IMC 0326. This guidance has remained relatively unchanged and states:

> In determining whether the licensee is making reasonable efforts to complete corrective actions promptly, the NRC will consider safety significance, the effects on operability, the significance of the degradation, and what is necessary to implement the corrective action. The NRC may also consider the time needed for design, review, approval, or procurement of the repair or modification; the availability of specialized equipment to perform the repair or modification; and whether the plant must be in hot or cold shutdown to implement the actions. If the licensee does not resolve the degraded or nonconforming condition at the first available opportunity or does not appropriately justify a longer completion schedule, the staff would conclude that corrective action has not been timely and would consider taking enforcement action. Factors that should be considered are (1) the identified cause, including contributing factors and proposed corrective actions, (2) existing conditions and compensatory measures, including the acceptability of the schedule for repair and replacement activities, (3) the basis for why the repair or replacement activities will not be accomplished prior to restart after a planned outage (e.g., additional time is needed to prepare a design/modification package or to procure necessary components), and (4) review and approval of the schedule by appropriate site management and/or oversight organizations.

Although the timing of corrective actions or the concept of what constitutes a prompt corrective action has not been specifically codified, a thorough review of these references and related historical enforcement actions provides an understanding of the concept of what constitutes the level of acceptability for meeting this expectation.

Harmonization with International Standards

The NRC staff did not identify any relevant international standards that provided useful guidance to NRC staff, applicants, or licensees.

Documents Discussed in Staff Regulatory Guidance

This RG endorses the use of one or more codes or standards developed by external organizations, and other third-party guidance documents. These codes, standards, and third-party guidance documents 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.

C. STAFF REGULATORY GUIDANCE

This RG describes methods and procedures that are acceptable to the NRC staff for dispositioning of TS that are insufficient to ensure plant safety. This RG endorses the guidance in NEI 15-03, Revision 2, subject to the exceptions and clarifications identified in this section.

1. NEI 15-03 Section 1, "Introduction" states:

   > Title 10 of the Code of Federal Regulations (10 CFR), section 50.36(b), requires each license authorizing operation of a power plant to include technical specifications (TS). Because they are included in the facility operating license issued by the NRC, TS are not licensee-controlled documents; however, upon identification of a TS that is insufficient to assure plant safety, licensees must take prompt action to verify and maintain acceptable plant conditions, comply with license and regulatory requirements, and communicate the details of the condition appropriately. Following prompt completion of these actions, licensee action is necessary to initiate the license amendment process as necessary to permanently address the nonconservatism.

   a. The NRC staff position is that the discovery of a TS that does not comply with the requirements of 10 CFR 50.36 (e.g., improper or inadequate TS value, required action, allowed outage time, or surveillance frequency) is a nonconservative TS (NCTS). In addition, the NRC staff notes that the absence of a TS requirement as required by 10 CFR 50.36 can also be an NCTS.

   b. The statement above implies that there is a two-step corrective action process for addressing NCTS; first, the immediate actions taken to ensure safety, and second, the correction of the NCTS. The statement implies that only the first step needs to be prompt.

      The NRC staff position is that the discovery of a NCTS is considered a degraded or nonconforming condition which requires prompt identification and corrective action for conditions adverse to quality (i.e., these are conditions subject to 10 CFR 50, Appendix B, Criterion XVI). The corrective actions include both the administrative controls established for safety and the actions to resolve the degraded or nonconforming condition, and that the corrective actions need to be prompt and timely. All NCTS should be resolved at the first available opportunity and no later than the end of the next refueling outage. This timeframe is generally sufficient for the license amendment process to be completed and the amendment to be implemented by the licensee. However, final corrective actions for some NCTS may require complex analysis or plant modifications that justify implementation later than the next refueling outage.

   c. The statement, "Following prompt completion of these actions, licensee action is necessary to initiate the license amendment process as necessary to permanently address the nonconservatism" implies that all corrective actions will be accompanied by an amendment. The NRC staff recognizes that corrective actions may also include modifications or restorations of the subject SSC to correct the nonconservatism and that in some cases an amendment may not be required.

2. NEI 15-03 Section 2, “Purpose”

   a. The NRC staff takes exception to the following statement in Section 2, “Purpose.”

      > This document provides guidance to licensees in addressing an existing technical specification requirement that does not protect the assumptions or conclusions in either Updated Final Safety Analysis Report (UFSAR) or the Technical Specification Bases, referred to herein as a nonconservative technical specification (NCTS).

      This statement is not consistent with the Commission’s policy on the purpose of TSs, as not every assumption or conclusion in the UFSAR or TS bases needs to be protected by a TS requirement. In addition, nonconservative assumptions and incorrect conclusions in the UFSAR or TS bases can result in an NCTS.

   b. Section 2 of NEI 15-03, Revision 2, states, in part: “The reference to ‘an existing technical specification requirement’ clarifies that the simple absence of a TS requirement is not by itself an NCTS.” The NRC staff notes that the absence of a TS requirement can be an NCTS. Thus, licensee identification of an NCTS should not be limited to only existing TS requirements.

3. NEI 15-03 Section 3.3, “NCTS Entry Into the Corrective Action Process”:

   NEI 15-03 Section 3.3, references NEI 16-07 which is a secondary reference.

   The NRC staff reminds licensees that in accordance with Section B, “Documents Discussed in Staff Regulatory Guidance,” and as specifically discussed the Section B, “Discussion on NEI 16-07 as a Secondary Reference,” the NRC staff has not endorsed NEI 16-07 and specifically does not endorse the concept of Condition Adverse to Regulatory Compliance (CARC). Therefore, NEI 16-07 does not constitute an NRC-approved acceptable approach for meeting NRC requirements.

4. NEI 15-03 Section 3.6, “Implementation of Final Corrective Action”

   a. The NRC staff provides clarification to the following statement in Section 3.6, “Implementation of Final Corrective Action.”

      > In addressing an NCTS, a licensee must take timely corrective action consistent with its quality assurance program. There is no definition of "timely" in the regulations or other binding requirements. 10 CFR 50, Appendix B, Criterion XVI, "Corrective Action," refers to prompt identification and correction of conditions adverse to quality, but does not further define "prompt." Because these terms are undefined, an appropriate timeline for correction must be commensurate with the safety significance of the issue. In determining priority, consideration should be given to the fact that compliance with the operating license would not necessarily assure plant safety. Based on evaluation of licensee efforts to resolve such issues, the NRC has issued non-cited violations to licensees for failure to promptly correct an NCTS.

      The NRC staff clarifies that the concept of timeliness is broader than a risk-informed approach to corrective actions (i.e., “safety significance”). The NRC staff’s review and

approval of TS changes through the license amendment process is an important part of its regulatory oversight function. As such, the implementation of the final corrective action for an NCTS should be completed as soon as practicable. Typically final corrective actions for a TS which is insufficient to ensure plant safety should be resolved at the first available opportunity and no later than the end of the next refueling outage. This timeframe is generally sufficient for the license amendment process to be completed and the amendment to be implemented by the licensee. However, final corrective actions for some NCTS may require complex analysis or plant modifications that justify implementation later than the next refueling outage.

D. IMPLEMENTATION

The purpose of this section is to provide information on how applicants and licensees[1] may use this guide and information regarding the NRC's plans for using this RG. In addition, it describes how the NRC staff complies with 10 CFR 50.109, "Backfitting" and any applicable finality provisions in 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants."

Use by Applicants and Licensees

Applicants and licensees may voluntarily[2] use the guidance in this document to demonstrate compliance with the underlying NRC regulations. Methods or solutions that differ from those described in this RG may be acceptable if they provide sufficient basis and information for the NRC staff to verify that the proposed alternative demonstrates compliance with the appropriate NRC regulations. Current licensees may continue to use guidance the NRC found acceptable for complying with the identified regulations as long as their current licensing basis remains unchanged.

Licensees may use the information in this RG for actions that do not require NRC review and approval such as changes to a facility design under 10 CFR 50.59, "Changes, Tests, and Experiments." Licensees may use the information in this RG or applicable parts to resolve regulatory or inspection issues

Use by NRC Staff

The NRC staff does not intend or approve any imposition or backfitting of the guidance in this RG. The NRC staff does not expect any existing licensee to use or commit to using the guidance in this RG, unless the licensee makes a change to its licensing basis. The NRC staff also does not expect or plan to request licensees to voluntarily adopt this RG to resolve a generic regulatory issue. The NRC staff does not expect or plan to initiate NRC regulatory action that would require the use of this RG. Examples of such unplanned NRC regulatory actions include issuance of an order requiring the use of the RG, requests for information under 10 CFR 50.54(f) as to whether a licensee intends to commit to use of this RG, generic communication or promulgation of a rule requiring the use of this RG without further backfit consideration

During regulatory discussions on plant specific operational issues, the staff may discuss with licensees various actions consistent with staff positions in this RG, as one acceptable means of meeting the underlying NRC regulatory requirement. Such discussions would not ordinarily be considered backfitting even if prior versions of this RG are part of the licensing basis of the facility. However, unless this RG is part of the licensing basis for a facility, the staff may not represent to the licensee that the licensee's failure to comply with the positions in this RG constitutes a violation.

If an existing licensee voluntarily seeks a license amendment or change and (1) the NRC staff's consideration of the request involves a regulatory issue directly relevant to this new or revised RG and (2) the specific subject matter of this RG is an essential consideration in the staff's determination of the acceptability of the licensee's request, then the staff may request that the licensee either follow the

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[1] In this section, "licensees" refers to licensees of nuclear power plants under 10 CFR Parts 50 and 52; and the term "applicants," refers to applicants for licenses and permits for (or relating to) nuclear power plants under 10 CFR Parts 50 and 52, and applicants for standard design approvals and standard design certifications under 10 CFR Part 52.

[2] In this section, "voluntary" and "voluntarily" means that the licensee is seeking the action of its own accord, without the force of a legally binding requirement or an NRC representation of further licensing or enforcement action.

guidance in this RG or provide an equivalent alternative process that demonstrates compliance with the underlying NRC regulatory requirements. This is not considered backfitting as defined in 10 CFR 50.109(a)(1) or a violation of any of the issue finality provisions in 10 CFR Part 52.

Additionally, an existing applicant may be required to comply with new rules, orders, or guidance if 10 CFR 50.109(a)(3) applies.

If a licensee believes that the NRC is either using this RG or requesting or requiring the licensee to implement the methods or processes in this RG in a manner inconsistent with the discussion in this Implementation section, then the licensee may file a backfit appeal with the NRC in accordance with the guidance in NRC Management Directive 8.4, "Management of Facility-Specific Backfitting and Information Collection" (Ref. 10), and the guidance in NUREG-1409, "Backfitting Guidelines" (Ref. 11).

REFERENCES[3]

1. Nuclear Energy Institute (NEI), NEI 15-03, Revision 2, "Licensee Actions to Address Nonconservative Technical Specifications," Washington, DC, September 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17276A642).

2. *U.S. Code of Federal Regulations* (CFR), "Domestic Licensing of Production and Utilization Facilities," Part 50, Chapter I, Title 10, "Energy."

3. CFR, "Licenses, Certifications and Approvals for Nuclear Power Plants," Part 52, Chapter I, Title 10, "Energy."

4. NRC, Administrative Letter 98-10, "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety," Washington, DC, December 29, 1998.

5. NRC, Inspection Manual Chapter 0326, "Operability Determinations and Functionality Assessments for Conditions Adverse to Quality or Safety," Washington, DC, November 20, 2017.

6. NRC, "Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors," *Federal Register*, 58 FR 39132, July 22, 1993.

7. NEI 16-07, "Improving the Effectiveness of Issue Resolution to Enhance Safety and Efficiency."[4]

8. NRC, Generic Letter 91-18, Revision 1, "Information to Licensees Regarding NRC Inspection Manual Section on Resolution of Degraded and Nonconforming Conditions (Generic Letter 91-18, Revision 1)."

9. NRC, RIS 2005-20, "Revision to NRC Inspection Manual Part 9900 Technical Guidance, 'Operability Determinations & Functionality Assessments for Resolution of Degraded or Nonconforming Conditions Adverse to Quality or Safety,'" Washington, DC.

10. NRC, Management Directive 8.4, "Management of Facility-Specific Backfitting and Information Collection," Washington, DC, October 9, 2013.

11. NRC, NUREG-1409, "Backfitting Guidelines," Washington, DC, July 1990.

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3 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.

4 Publications from the Nuclear Energy Institute (NEI) are available at their Web site: http://www.nei.org/ or by contacting the headquarters at Nuclear Energy Institute, 1776 I Street NW, Washington DC 20006-3708, Phone: 202-739-800, Fax 202-785-4019.