

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
WASHINGTON, D.C. 20555-0001

August 23, 2007

**NRC REGULATORY ISSUE SUMMARY 2007-16:
IMPLEMENTATION OF THE REQUIREMENTS OF
10 CFR 54.37(b) FOR HOLDERS OF RENEWED LICENSES**

ADDRESSEES

All holders of operating licenses for nuclear power reactors, except those who have permanently ceased operations and have certified that fuel has been permanently removed from the reactor vessel.

INTENT

The U.S. Nuclear Regulatory Commission (NRC) is issuing this regulatory issue summary (RIS) to provide guidance to holders of renewed licenses on implementing the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 54.37(b), regarding information required to be included in final safety analysis report (FSAR) updates.

BACKGROUND INFORMATION

The license renewal rule, 10 CFR Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," requires in 10 CFR 54.21(d) that an applicant include in its license renewal application a supplement to its FSAR that contains a summary description of the programs and activities credited for managing the effects of aging and the evaluation of time-limited aging analyses (TLAAs). The existing regulatory process, existing licensee oversight activities, and the additional regulatory controls associated with placing a summary description of aging management activities in the FSAR provide assurance that changes that could decrease the overall effectiveness of programs to manage the effects of aging or evaluation of TLAAs receive appropriate review by the licensee. In 10 CFR 54.37(b), the license renewal rule requires the following:

After the renewed license is issued, the FSAR update required by 10 CFR 50.71(e) must include any systems, structures, and components newly identified that would have been subject to an aging management review or evaluation of time-limited aging analyses in accordance with §54.21. This FSAR update must describe how the effects of aging will be managed such that the intended function(s) in §54.4(b) will be effectively maintained during the period of extended operation.

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The application of this regulatory requirement and the applicability of the backfit rule, 10 CFR 50.109, "Backfitting," have been the subject of significant interactions between the NRC staff and the industry. The most recent discussion of these interactions appears in an October 11, 2006, letter from the NRC to the Nuclear Energy Institute (NEI) available in the Agencywide Documents Access and Management System (ADAMS) under ADAMS Accession No. ML062700236.

DISCUSSION

Newly Identified Systems, Structures, and Components (SSCs)

The intent of 10 CFR 54.37(b) is to capture those SSCs that, if they had been identified at the time of the license renewal application, would have been subject to an aging management review or evaluation of TLAAs. In the context of 10 CFR 54.37(b), newly identified SSCs that should be included in the next FSAR update required by 10 CFR 50.71(e) are those SSCs that meet one of the two following conditions:

- (1) There is a change to the current licensing basis (CLB) that meets the following criteria:
 - The change impacts SSCs that were not in scope for license renewal when the NRC approved the license renewal application.
 - The SSCs would have been in the scope of license renewal based on the CLB change if 10 CFR 54.4(a) were applied to the SSCs.
- (2) SSCs were installed in the plant at the time of the license renewal review that, in accordance with the CLB at the time, should have been included in the scope of license renewal per 10 CFR 54.4(a) but were not identified as in scope until after issuance of the renewed license.

SSCs that are plant additions or modifications installed after the renewed license is issued are not subject to the provisions of 10 CFR 54.37(b).

Identification of SSCs

The language of 10 CFR 54.37(b) does not limit how or by whom newly identified SSCs are to be found. A licensee may identify SSCs that should be within the scope of its license renewal program at any time. Currently, the only additional source that has identified new SSCs that should be in the scope of license renewal is the NRC's License Renewal Interim Staff Guidance (LR-ISG) process. The agency developed the LR-ISG process in coordination with the industry and issued it in final form on December 12, 2003 (ADAMS Accession No. ML023520620). The LR-ISG process captures lessons learned by the NRC and industry during license renewal application reviews and communicates them in a timely manner to all stakeholders.

There are two types of LR-ISGs—clarification and compliance. Clarification LR-ISGs provide additional guidance to applicants that the staff or stakeholders feel is necessary to improve the efficiency and effectiveness of the license renewal process or to help reduce the number of requests for additional information. Clarification LR-ISGs do not create new staff positions and do not apply to licensees holding renewed licenses. Compliance LR-ISGs involve compliance with the regulations and, therefore, apply to both applicants and licensees holding renewed licenses. As discussed later in this document under Backfit Discussion, the backfit rule, 10 CFR 50.109, does not apply to the requirement in 10 CFR 54.37(b) to include newly identified SSCs in the FSAR update required by 10 CFR 50.71(e). The backfit rule would apply to other changes after a renewed license is issued affecting aging management or TLAA evaluations that do not involve the scope of the license renewal rule as defined under the discussion of newly identified SSCs above.

The NRC staff previously indicated that it would notify licensees by generic communication as to which LR-ISGs are related to compliance and involve newly identified SSCs after the LR-ISGs were incorporated into the following license renewal guidance documents, as applicable:

- Regulatory Guide (RG) 1.188, “Standard Format and Content for Applications to Renew Nuclear Power Plant Operating Licenses,” Revision 1, September 2005
- NUREG-1800, “Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants” (SRP-LR), Revision 1, September 2005
- NUREG-1801, “Generic Aging Lessons Learned (GALL) Report,” Volumes 1 and 2, Revision 1, September 2005 (incorporated by reference in the SRP-LR)

RG 1.188 endorses NEI 95-10, “Industry Guidelines for Implementing the Requirements of 10 CFR Part 54—The License Renewal Rule,” Revision 6, issued June 2005.

The NRC issued the three following compliance LR-ISGs and subsequently incorporated them into the referenced guidance documents:

- Station Blackout SSCs—In LR-ISG-02, dated April 1, 2002 (ADAMS Accession No. ML020920464), the NRC provided additional guidance for identifying the SSCs relied upon to meet the requirements of the station blackout rule (10 CFR 50.63, “Loss of All Alternating Current Power”) as required by 10 CFR 54.4(a)(3). The guidance in this LR-ISG was subsequently incorporated into SRP-LR, Section 2.5.
- Electrical Fuse Holders—The NRC provided guidance on the identification and treatment of electrical fuse holders for license renewal in LR-ISG-05, dated March 10, 2003 (ADAMS Accession No. ML030690492). The guidance in this LR-ISG was subsequently incorporated into SRP-LR, Table 2.1-5 and Section 3.6, GALL Report, Chapter VI and Aging Management Program XI.E5, and Appendix B to NEI 95-10 endorsed by RG 1.188.

- Housings for Active Components—The NRC provided guidance on the identification and treatment of housing for active components for license renewal in LR-ISG-06, dated April 8, 2003 (ADAMS Accession No. ML031010423). The guidance in this LR-ISG was subsequently incorporated into SRP-LR, Table 2.1-5 and Appendix B to NEI 95-10 endorsed by RG 1.188.

The NRC identified the need for these LR-ISGs during the review of early license renewal applications as the process was evolving. As such, most holders of renewed licenses may have already included the SSCs discussed in these LR-ISGs in the scope of renewal for their plants. However, the agency issued some early renewed licenses without the licensees explicitly including the subject SSCs in the scope of their license renewal applications. Holders of renewed licenses should verify that their original license renewal programs included these SSCs and that appropriate aging management programs exist and are described in the FSAR. Those licensees whose programs do not already include these SSCs must perform an aging management review in accordance with 10 CFR 54.21, “Contents of Application—Technical Information,” and should submit the information required by 10 CFR 54.37(b) in their next FSAR update.

Future Notification of Newly Identified SSCs

With the level of experience that now exists with license renewal application reviews, the NRC staff does not anticipate identifying on a generic basis new SSCs in the scope of license renewal that require consideration under 10 CFR 54.37(b) by holders of renewed licenses. In the event that new SSCs are identified that meet the definition above for newly identified SSCs (e.g., in a future LR-ISG or guidance document update), the NRC staff will inform licensees of the need to consider the SSCs for applicability to their facilities.

FSAR Update

The FSAR update required by 10 CFR 54.37(b) must include newly identified SSCs that would have been subject to an aging management review or evaluation as a TLAA in accordance with 10 CFR 54.21. The FSAR update needs to describe how the effects of aging will be managed such that the intended function(s) in 10 CFR 54.4(b) will be maintained effectively during the period of extended operation.

When the NRC issued the amended license renewal rule in 1995, the Commission stressed the importance of describing the aging management reviews or TLAAAs for newly identified SSCs in the FSAR (Volume 60 of the *Federal Register* (FR), pages 22483–22484 (60 FR 22483-22484)). It was noted in the FR notice that such a level of detail appeared to be at odds with the requirement in 10 CFR 54.21(d) that the FSAR supplement need only contain a summary description of the aging management programs or TLAAAs. However, the Commission explained that for those SSCs that were subject to an aging management review as part of the license renewal process, the application itself and the FSAR supplement together provided the requisite regulatory control to ensure the efficacy of the aging management program. Newly identified SSCs have not been subjected to the same level of review. Thus, the level of detail required to describe the aging management reviews or TLAAAs in the FSAR update for newly identified SSCs is appropriate, even though it is greater than the level of detail required for the original license renewal FSAR supplement.

BACKFIT DISCUSSION

This RIS does not involve a backfit under the backfit rule (10 CFR 50.109). The Commission addressed the applicability of the backfit rule both when it promulgated the license renewal rule in 1991 (56 FR 64974) and when amending it in 1995 (60 FR 22490–22491). In discussing whether the backfit rule should apply to the review of a license renewal application, the Commission stated that the agency may impose any additional requirements necessary to manage the effects of aging without consideration of costs as part of the license renewal process. The Commission does not intend to impose requirements on a licensee that go beyond what is necessary to adequately manage aging. This position is analogous to the compliance exception of 10 CFR 50.109(a)(4)(i). Newly identified SSCs would have been subject to an aging management review if they had been identified at the time of the license renewal application. Thus, requiring a licensee to consider newly identified SSCs after a renewed license is issued is not a backfit. The requirements of 10 CFR 54.37(b) apply only to newly identified SSCs. They do not impose any changes in aging management programs or TLAAs after a renewed license is issued unrelated to a newly identified SSC. The backfit rule continues to apply to these types of changes.

FEDERAL REGISTER NOTIFICATION

A notice of opportunity for public comment on this RIS was not published in the *Federal Register* because the RIS is informational and pertains to a staff position that does not depart from current regulatory requirements and practices.

CONGRESSIONAL REVIEW ACT

This RIS is not a rule as designated by the Congressional Review Act (5 U.S.C. §§ 801–808) and, therefore, is not subject to the Act.

PAPERWORK REDUCTION ACT STATEMENT

This Regulatory Issue Summary contains information collection requirements 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 3150-0155.

Public Protection Notification

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

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Please direct any questions about this matter to the technical contact listed below.

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Note: NRC generic communications may be found on the NRC public Web site,
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