



NUCLEAR REGULATORY COMMISSION

[NRC-2020-0153]

Updated Aging Management Criteria for Reactor Vessel Internal Components for Pressurized-Water Reactors

AGENCY: Nuclear Regulatory Commission.

ACTION: Interim staff guidance; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing Interim Staff Guidance (ISG) SLR-ISG-2021-01-PWRVI, “Updated Aging Management Criteria for Reactor Vessel Internal Components for Pressurized-Water Reactors.” This ISG updates the aging management criteria for pressurized-water reactor (PWR) vessel internals components in the NRC’s subsequent license renewal (SLR) guidance documents. Specifically, the ISG revises guidance contained in NUREG-2191, “Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report,” and NUREG-2192, “Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants.” This ISG is intended to facilitate preparation of SLR applications by clarifying existing guidance for aging management and adding new guidance, which also will facilitate the NRC staff’s review of SLR applications.

DATES: This guidance is effective on [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: Please refer to Docket ID **NRC-2020-0153** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Web Site:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2020-0153**. Address questions about Docket IDs in Regulations.gov to Jennifer Borges; telephone: 301-287-9127; email:

Jennifer.Borges@nrc.gov. For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.

- **NRC's Agencywide Documents Access and Management System**

(ADAMS): You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, 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 email to pdr.resource@nrc.gov. For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the "Availability of Documents" section.

- **Attention:** The PDR, where you may examine and order copies of public documents, is currently closed. You may submit your request to the PDR via e-mail at pdr.resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8:00 a.m. and 4:00 p.m. (EST), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Jeffrey Mitchell, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001, telephone: 301-415-0833; email: jeffrey.mitchell2@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Background

On August 3, 2020 (85 FR 46735), the staff requested public comments on draft SLR-ISG-PWRVI-2020-XX, "Updated Aging Management Criteria for Reactor Vessel Internal Components for Pressurized-Water Reactors." The NRC received comments from the Electric Power Research Institute, Materials Reliability Program (EPRI MRP) by letter dated September 1, 2020 (ADAMS Accession No. ML20245E539), and from the Nuclear Energy Institute by letter dated September 2, 2020 (ADAMS Accession No. ML20246G654). No other comments were submitted. The NRC staff considered those comments in developing the final version of the ISG. The staff's responses to the

comments are provided in Appendix H, “Disposition of Public Comments,” of the final ISG.

This ISG updates NUREG-2191, “Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report,” and NUREG-2192, “Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants.” NUREG-2191 and NUREG-2192 were published in July 2017, and a full review and revision to these documents is not scheduled to be performed for several years. The staff has reviewed the first three subsequent license renewal applications (SLRAs) that were based on the above guidance documents. During these reviews, the staff and applicants identified improvements to the guidance that would assist in preparing and reviewing future SLRAs more effectively and efficiently. This ISG provides an interim update to NUREG-2191 and NUREG-2192 to implement these improvements.

This ISG is not intended for standalone use. It provides revisions to NUREG-2191 and NUREG-2192 sections and tables that supersede the content in the NUREGs and is intended to be used within the context of the NUREGs. The revisions captured in this ISG include:

- updates to GALL-SLR Report aging management program XI.M16A, “PWR Vessel Internals”;
- changes to aging management review items in NUREG-2191 tables and corresponding summary tables in NUREG-2192;
- new aging management review items in NUREG-2191 tables and corresponding summary tables in NUREG-2192;
 - changes to NUREG-2192 “further evaluation” guidance sections;
 - updates to references listed in affected NUREG-2191 sections; and
 - editorial corrections to relevant sections.

II. Availability of Documents

The documents identified in the following table are available to interested persons in ADAMS, as indicated.

DOCUMENT	ADAMS ACCESSION NO.
NUREG-2191, "Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report"	ML16274A389 (Vol. 1) ML16274A399 (Vol. 2)
NUREG-2192, "Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants"	ML16274A402
Draft SLR-ISG-PWRVI-2020-XX, "Updated Aging Management Criteria for Reactor Vessel Internal Components for Pressurized-Water Reactors"	ML20156A343
Final SLR-ISG-2021-01-PWRVI, "Updated Aging Management Criteria for Reactor Vessel Internal Components for Pressurized-Water Reactors"	ML20217L203
March 28, 2019, Summary of Category 2 Public Meeting on Lessons Learned from the Review of the First Subsequent License Renewal Applications	ML19112A206
Summary of December 12, 2019, Category 2 Public Meeting on Lessons Learned from the Review of the First Subsequent License Renewal Applications	ML20016A347
February 20, 2020, Summary of Category 2 Public Meeting on Lessons Learned from the Review of the First Subsequent License Renewal Applications	ML20076E074
Summary of March 25, 2020 Meeting with Industry Related to Revisions to Subsequent License Renewal Guidance Documents	ML20107F702
Summary of April 3, 2020, Meeting with Industry Regarding Changes to Subsequent License Renewal Guidance Documents	ML20107F733
Summary of April 7, 2020, Meeting with Industry Regarding Revisions to the Subsequent License Renewal Guidance Documents	ML20107F699
Comment Letter (1) of Christopher Koehler and Brian Burgos, on behalf of the Electric Power Research Institute, Subject: "Industry Comments to Draft Interim Staff Guidance (ISG)-SLR-ISG-PWRVI-2020-XX"	ML20245E539
Comment Letter (2) of Peter W. Kissinger, on behalf of Nuclear Energy Institute, Subject: "Comments on the proposed changes to subsequent license renewal document SLR-ISG-PWRVI-2020-XX"	ML20246G654

III. Backfit Discussion

This ISG intends to revise guidance for the NRC staff reviewing SLRAs and for prospective applicants in preparing SLRAs. Issuance of this ISG does not constitute a backfit as defined in section 50.109(a)(1) of title 10 of the *Code of Federal Regulations* (10 CFR) and is not otherwise inconsistent with the issue finality provisions in

10 CFR part 52. As discussed in the “Backfitting” section of the final ISG, the ISG positions do not constitute backfitting inasmuch as the ISG is guidance directed to the NRC staff with respect to its regulatory responsibilities and to applicants who choose to follow the guidance. Applicants and potential applicants are not, with certain exceptions, the subject of either the backfit rule or any issue finality provisions under 10 CFR part 52. The NRC staff has no intention to impose the ISG positions on existing nuclear power plant licensees either now or in the future (absent a voluntary request for a change from the licensee).

IV. Congressional Review Act

This ISG is a rule as defined in the Congressional Review Act (5 U.S.C. 801–808). However, the Office of Management and Budget has not found it to be a major rule as defined in the Congressional Review Act.

Dated: January 13, 2021.

For the Nuclear Regulatory Commission.

Robert Caldwell,
Deputy Director,
Division of New and Renewed Licenses,
Office of Nuclear Reactor Regulation.

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