

NUCLEAR REGULATORY COMMISSION

[NRC-2009-0521]

**FINAL LICENSE RENEWAL INTERIM STAFF GUIDANCE LR-ISG-2009-01: AGING
MANAGEMENT OF SPENT FUEL POOL NEUTRON-ABSORBING MATERIALS OTHER
THAN BORAFLEX
NOTICE OF AVAILABILITY**

AGENCY: Nuclear Regulatory Commission (NRC).

ACTION: Notice of availability.

SUMMARY: The NRC is issuing the final License Renewal Interim Staff Guidance (LR-ISG), LR-ISG-2009-01, "Aging Management of Spent Fuel Pool Neutron-Absorbing Materials other than Boraflex." This LR-ISG provides aging management guidance to address the potential loss of material and loss of neutron-absorbing capability of certain nuclear power plant spent fuel pool neutron-absorbing materials for compliance with Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," of Title 10 of the *Code of Federal Regulations* (10 CFR Part 54). The final LR-ISG revises the NRC staff's aging management recommendations currently described in NUREG-1801, Volumes 1 and 2, "Generic Aging Lessons Learned (GALL) Report," Revision 1, dated September 2005, which are available in the NRC's Agencywide Documents Access and Management System (ADAMS) under Accession Nos. ML052770419 and ML052780376. The final LR-ISG also includes revisions to the NRC staff's review procedures and acceptance criteria in NUREG-1800, Revision 1, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants" (SRP-LR), available under Accession No. ML052110007. The final LR-ISG-2009-01 is available under Accession No. ML100621321.

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ADDRESSES: Documents created or received after November 1, 1999, are available electronically at the NRC's Public Electronic Reading Room on the Internet at *http://www.nrc.gov/reading-rm/adams.html*. From this site, the public can gain entry into ADAMS. If you do not have access to the Internet or if there are any problems in accessing the documents located in ADAMS, contact the NRC Public Document Room reference staff at 1-800-397-4209, 301-415-4737, or by e-mail at *PDR.Resource@nrc.gov*.

The NRC posts LR-ISGs on its public web page under the "License Renewal" heading at *http://www.nrc.gov/reading-rm/doc-collections/isg*.

SUPPLEMENTARY INFORMATION:

Background

The NRC issues LR-ISGs to communicate insights and lessons learned and to address emergent issues that are not addressed in the guidance documents published to facilitate implementation of 10 CFR Part 54. The NRC staff and stakeholders use LR-ISGs until their guidance is incorporated into a formal license renewal guidance document revision.

The NRC staff developed draft LR-ISG-2009-01, "Staff Guidance Regarding Plant-Specific Aging Management Review and Aging Management Program for the Neutron-Absorber Material in the Spent Fuel Pool Associated with License Renewal Applications," in light of recent operating experience concerning instances of degradation and deformation of neutron-absorbing materials in the spent fuel pools of nuclear power plants. Primarily, the draft LR-ISG proposed guidance for managing the potential loss of material and loss of neutron-absorbing capability aging effects for spent fuel pool neutron-absorbing materials other than Boraflex. A proposed aging management program was included in the draft LR-ISG to address these aging

effects during the period of extended operation, as one approach acceptable to the NRC staff for meeting the requirements of 10 CFR Part 54.

On December 1, 2009, the NRC requested public comments on the draft LR-ISG-2009-01 in the *Federal Register* (74 FR 62829). The public comment period ended on December 31, 2009. By letters dated December 17, 2009 (ML093570197), and December 28, 2009 (ML100060388), the NRC received comments from two nuclear power plant licensees, Southern Nuclear Operating Company, Inc., and Exelon Generation Company, LLC, respectively. The NRC also received comments from the Nuclear Energy Institute, an industry group, by letter dated December 31, 2009 (ML100060387). After the comment period closed, the NRC received additional comments from the Nuclear Energy Institute in an email dated January 6, 2010 (ML100280648). No other comments were received. The NRC staff considered all the comments in developing the final LR-ISG-2009-01, as discussed in the "Comments and Responses" section of this notice.

Final Action

By this action, the NRC is making the final LR-ISG-2009-01 available. The NRC staff approves of the LR-ISG for NRC staff and stakeholder use. The NRC staff will also incorporate the approved LR-ISG into the next revision of the GALL Report and the SRP-LR.

The final LR-ISG revises the staff's aging management recommendations concerning spent fuel pool neutron-absorbing materials other than Boraflex, which are currently described in the GALL Report and SRP-LR. Specifically, the LR-ISG provides a program for managing the effects of aging on these spent fuel pool neutron-absorbing materials, whereas before, a plant-specific program was recommended. In addition, the corresponding aging management review line items in both documents are clarified and reference the recommended program instead of recommending further evaluation. The final LR-ISG also includes corresponding revisions to the SRP-LR for the staff's review procedures and acceptance criteria concerning these spent

fuel pool components and materials. The title of the LR-ISG has been changed from the draft title, "Staff Guidance Regarding Plant-Specific Aging Management Review and Aging Management Program for the Neutron-Absorber Material in the Spent Fuel Pool Associated with License Renewal Applications," to the final, "Aging Management of Spent Fuel Pool Neutron-Absorbing Materials other than Boraflex," to clarify that the LR-ISG provides guidance concerning generic, not plant-specific, aging management recommendations.

Comments and Responses

The comment providers, in general, recommended clarifications to the draft LR-ISG. The NRC staff included these clarifications in the final LR-ISG as appropriate. One comment indicated that the aging management program in GALL Report, Volume 2, Section XI.M2, "Water Chemistry," should be credited to manage the loss of material aging effect. Another comment requested the NRC staff to provide the technical justification for the testing frequency in the proposed aging management program. Based on its technical evaluations, the NRC staff did not make substantive revisions to the LR-ISG in response to these two comments. Detailed NRC staff responses to all comments are in an appendix to the final LR-ISG document.

Dated at Rockville, Maryland, this 27th day of April, 2010.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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Office of Nuclear Reactor Regulation