

August 24, 2000

MEMORANDUM TO: David L. Meyers, Chief  
Rules and Directive Branch  
Division of Administrative Services  
Office of Administration

FROM: Christopher I. Grimes, Chief **/RA/**  
License Renewal and Standardization Branch  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

SUBJECT: FEDERAL REGISTER NOTICE FOR DRAFT REGULATORY GUIDE  
DG-1104, DRAFT STANDARD REVIEW PLAN FOR LICENSE  
RENEWAL, DRAFT GENERIC AGING LESSONS LEARNED REPORT  
AND A PUBLIC WORKSHOP ON LICENSE RENEWAL GUIDANCE  
DOCUMENTS (TAC NO. MA 9679)

Attached is one signed copy of a *Federal Register* notice for your transmittal to the Office of the Federal Register for publication. Five additional copies of the Notice are attached for your use; a diskette containing the Notice is also being provided.

If you need any additional information concerning this Notice, please contact Raj Anand of my staff at 301-415-1146.

Attachments: As stated

NUCLEAR REGULATORY COMMISSION

Issuance, Availability of Draft Regulatory Guide, Draft Standard Review Plan,  
and Report; Announcement of Public Workshop

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** Issuance of Draft Regulatory Guide, Draft Standard Review Plan, and report; request for public comment; and announcement of public workshop.

**SUMMARY:** The Nuclear Regulatory Commission (NRC) is issuing Draft Regulatory Guide DG-1104, "Standard Format and Content for Applications To Renew Nuclear Power Plant Operating Licenses"; a draft Standard Review Plan for License Renewal (SRP-LR), "Standard Review Plan for the Review of License Renewal Applications for Nuclear Power Plants"; and a draft Generic Aging Lessons Learned (GALL) report for public comment. These documents describe methods acceptable to the NRC staff for implementing the license renewal rule (10 CFR Part 54), as well as techniques used by the NRC staff in evaluating applications for license renewals. The NRC is also announcing a public workshop to facilitate gathering public comments on these draft documents. The NRC is especially interested in stakeholder comments that will improve the safety benefits, effectiveness, and efficiency of the license renewal process.

**DATES:** Commenters should submit comments on Draft Regulatory Guide DG-1104, the draft SRP-LR , and the draft GALL report, accompanied by supporting data, by October 16, 2000. Comments received after this date will be considered if it is practical to do so, but the Commission is able to assure consideration only for comments received on or before this date.

A public workshop will be held on Monday, September 25, 2000, from 8:30 am to 4:00 p.m. at NRC's headquarters. To ensure that adequate copies of handouts are available, persons planning to attend the workshop should call the contact designated below by September 15, 2000. Also, to ensure there is adequate time allotted for presentations, persons who wish to make opening remarks or other formal presentations at the workshop should call the contact designated below by September 15, 2000, to indicate the time requested.

**ADDRESSES:** Written comments may be submitted to the Chief, Rules and Directives Branch, Division of Administrative Services, U.S. Nuclear Regulatory Commission, Washington, DC 20555. You may also provide comments via the NRC's License Renewal web site at <http://www.nrc.gov/NRC/REACTOR/LR/IRG/index.html>. This site provides the availability to upload comments as files (any format) if your web browser supports that function. For information about the web site, email [NRCWeb@NRC.GOV](mailto:NRCWeb@NRC.GOV).

The public workshop will be held at the NRC Auditorium, Two White Flint North, 11545 Rockville Pike, Rockville, Maryland.

Electronic copies of all the documents are available on NRC's License Renewal web site, at <http://www.nrc.gov/NRC/REACTOR/LR/IRG/index.html>. Electronic copies are also available in NRC's Electronic Reading Room through the same web site: DG-1104 is under ADAMS Accession Number ML003736097, the draft SRP-LR is under ADAMS Accession number ML003742580, the GALL report is under ADAMS Accession number ML003742594, and NEI 95-10 (Revision 2) is under ADAMS Accession number ML003739319. All of these documents are available for inspection or copying for a fee at the NRC's Public Document Room at 2120 L Street NW, Washington, DC (the PDR's mailing address is Mail Stop LL-6, Washington, DC 20555; telephone (202) 634-3273; fax (202) 634-3343). These license

renewal guidance documents are not copyrighted, and Commission approval is not required to reproduce them.

**FOR FURTHER INFORMATION CONTACT:** Raj Anand, Office of Nuclear Reactor Regulation, Mail Stop O-12G15, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Telephone (301) 415-1146, or email <[RKA@NRC.GOV](mailto:RKA@NRC.GOV)> .

**SUPPLEMENTARY INFORMATION:**

**Draft Regulatory Guide for License Renewal**

Draft Regulatory Guide DG-1104 is being issued for public comment as part of the implementation of the license renewal rule. This draft regulatory guide is being developed to provide a uniform format and content acceptable to the NRC staff for structuring and presenting the information to be compiled and submitted in an application for renewal of a nuclear power plant operating license. DG-1104 proposes to endorse Nuclear Energy Institute (NEI) guidance document NEI 95-10, "Industry Guideline for Implementing the Requirements of 10 CFR Part 54—The License Renewal Rule," Revision 2, dated August 2000, as an acceptable method for complying with the requirements of the license renewal rule.

DG-1104 supersedes Draft Regulatory Guide DG-1047, which was issued for public comment in August 1996 to propose endorsement of NEI 95-10, Revision 0, dated March 1, 1996. Comments were received from NEI, U.S. Department of Energy, and several licensees. Subsequent to receipt of the comments, the Commission agreed with an NRC staff recommendation contained in SECY-97-118, "Activities Associated with Implementation of 10 CFR Part 54," dated June 5, 1997, to maintain DG-1047 in draft form to allow experience to be gained from its trial use and from plant-specific and owners group review activities. Since

1997, the license renewal process has evolved significantly, gaining experience from license renewal application reviews, owners group topical report reviews, and ongoing generic activities that involved addressing a number of the issues identified in the comment letters. This experience is reflected in the current versions of DG-1104, NEI 95-10, the SRP-LR, and the GALL report. Many previous comments are resolved by the current versions of these documents. Others are being resolved in the ongoing reviews, or are no longer applicable. Therefore, the NRC staff did not address the resolution of the previous comments separately. If a previous comment was not resolved to a commenter's satisfaction, the comment may be submitted again.

DG-1104 and NEI 95-10 are being developed to provide guidance on the contents of an application for license renewal that includes --

- (1) Required general information concerning the applicant and the plant;
- (2) Information contained in the integrated plant assessment;
- (3) An evaluation of time-limited aging analyses (TLAAs);
- (4) A supplement to the Final Safety Analysis Report (FSAR);
- (5) Technical specification changes and their justification; and
- (6) A supplement to the environmental report.

Specifically, guidance is provided for --

- (1) Identifying the structures and components subject to aging management review;
- (2) Assuring that the effects of aging are managed;
- (3) Identifying and evaluating TLAAs;
- (4) Establishing the format and content of the license renewal application; and
- (5) Preparing an FSAR supplement.

As indicated in Revision 2 of NEI 95-10, NEI intends NEI 95-10 to be consistent with the GALL report and the SRP-LR. Because the GALL report and the SRP-LR are evolving, NEI

expects to make further changes to NEI 95-10 to ensure consistency with the regulatory documents before the NRC staff's final issuance of the regulatory guide. For example, the NEI guidance in Section 4.1.1 of NEI 95-10 on scoping of complex assemblies should be consistent with that in Section 2.1 of the SRP-LR.

### **Draft Standard Review Plan for License Renewal**

The NRC staff has also revised a draft SRP-LR that proposes guidance to NRC staff reviewers in performing safety reviews of applications to renew licenses of nuclear power plants in accordance with the license renewal rule. A previous working draft SRP-LR, dated September 1997, is in the NRC's Public Document Room. The draft SRP-LR is being revised to incorporate lessons learned from the review of the initial license renewal applications, as well as relevant information from the draft GALL report and DG-1104. The draft SRP-LR contains four major chapters: 1. Administrative Information, 2. Scoping and Screening Methodology for Identifying Structures and Components Subject to Aging Management Review, and Implementation Results; 3. Aging Management Review Results, and 4. Time-Limited Aging Analyses. In addition, three Branch Technical Positions are in an appendix to the draft SRP-LR.

During the initial license renewal reviews, the NRC and the industry recognized that most of the existing programs at the plants could be adequate to manage aging effects for license renewal without change. By letter dated March 3, 1999, NEI documented the industry's views on how existing plant programs and activities should be credited for license renewal. The so-called "credit" issue was: To what extent should the NRC staff review existing programs relied on for license renewal, to conclude that an applicant has demonstrated reasonable assurance that such programs will be effective in managing effects of aging on the functionality

of structures and components in the period of extended operation? In an NRC staff paper dated June 3, 1999, SECY 99-148, "Credit for Existing Programs for License Renewal," the NRC staff described options and provided a recommendation for crediting existing programs to improve the efficiency of the license renewal process. By a staff requirements memorandum (SRM) dated August 27, 1999, the Commission approved the NRC staff's recommendation and directed the NRC staff to focus the review guidance in the SRP-LR on existing programs that should be augmented for license renewal. The NRC staff developed the draft GALL report that evaluates existing programs generically to document the basis for determining when generic existing programs are adequate without change and when generic existing programs should be augmented for license renewal. The draft SRP-LR incorporates the draft GALL report by reference.

### **Draft Generic Aging Lessons Learned Report**

The draft GALL report builds on a previous report, NUREG/CR-6490, "Nuclear Power Plant Generic Aging Lessons Learned (GALL)," dated December 1996, which is a systematic compilation of plant aging information. The NRC staff held a public workshop on December 6, 1999, to invite early public participation in the development of license renewal guidance documents. The NRC staff made an early draft GALL report publicly available at the public workshop. Subsequent to the public workshop, NEI submitted significant industry comments that were discussed in public meetings. The Union of Concerned Scientists (UCS) also submitted 5 technical reports for NRC's consideration in preparing the draft GALL report.

The draft GALL report presents results in a table format. The adequacy of the generic aging management programs in managing certain aging effects for particular structures and components are evaluated based on the review of these 10 program attributes: scope of

program, preventive actions, parameters monitored or inspected, detection of aging effects, monitoring and trending, acceptance criteria, corrective actions, confirmation process, administrative controls, and operating experience. If the evaluation determines that a program is adequate to manage certain aging effects for particular structures and components without change, the draft GALL report would indicate that no further NRC staff evaluation is recommended for license renewal. Otherwise, it would recommend areas in which the NRC staff should focus its review.

The GALL report is a technical basis document for the SRP-LR. The GALL report should be treated in the same manner as an approved topical report that is applicable generically. An applicant may reference the GALL report in a license renewal application to demonstrate that the applicant's programs at its facility correspond to those reviewed and approved in the GALL report, and that no further NRC staff review is required. If the material presented in the GALL report is applicable to the applicant's facility, the NRC staff would find the applicant's reference to the GALL report acceptable. In making this determination, the NRC staff should consider whether the applicant has identified specific programs described and evaluated in the GALL report. However, the NRC staff should not repeat its review of the substance of the matters described in the GALL report. Rather, the NRC staff should ensure that the applicant verifies that the approvals set forth in the GALL report for generic programs apply to the applicant's programs. The focus of the NRC staff review should be on augmented programs for license renewal. The NRC staff should also review information that is not addressed in the GALL report, or is otherwise different from that in the GALL report.



### **Solicitation of Comments**

The NRC is particularly interested in comments that will focus on the fundamental question of the extent to which existing programs adequately manage aging effects for the structures and components within the scope of license renewal. To that end, we encourage individuals and organizations to comment on (1) how well the improved guidance articulates the attributes of existing programs that adequately manage applicable aging effects and (2) how well the improved guidance identifies those areas where existing programs should be augmented. The comments should include supporting justification in enough detail for the NRC staff to evaluate the need for changes in the guidance, as well as references to operating experience, industry standards, or other relevant reference materials that provide a sound technical basis for such changes. The NRC is also interested in comments that will improve the clarity of the documents so that the improved guidance will ensure a stable and predictable evaluation standard for future renewal applications. Editorial and style comments are not necessary because we expect that the guidance documents will need to be reformatted and edited before they are issued in final form. The NRC also intends to incorporate formatting changes that result from further improvements to the standard form and content for renewal applications.

### **Questions for Public Comments**

Although the NRC invites public comments on all information contained in these draft documents, responses to the following questions are particularly solicited.

1. The draft GALL report evaluates many existing programs for their adequacy to manage aging for license renewal. In many cases, the draft GALL report concludes that the existing programs are adequate without change. Did the NRC staff provide sufficient credit for

existing programs in the draft GALL report? The commenter should provide justification to support its view.

2. As a complement to Question 1, did the NRC staff provide too much credit without a sufficient technical basis in the draft GALL report? Again, the commenter should provide justification to support its view.

3. Many existing programs are based on national codes and standards that are updated as industry and technology evolve. The Commission has a process to periodically incorporate updated versions of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code into the regulations in 10 CFR 50.55a. The draft GALL report evaluation of existing programs for their adequacy as aging management programs for license renewal is based on the specifics of the 1989 edition of Section XI of the ASME code for inservice inspection and the 1992 edition of Subsections IWE and IWL of Section XI of the ASME code for containment inspections. These specific editions were the editions incorporated into the regulations by the Commission at the time when the bulk of the draft GALL report was being prepared. Since then, the Commission has incorporated the 1995 edition of the ASME code into the regulations (64 FR 51370, September 22, 1999). Before final issuance of the GALL report, the staff plans to review changes to the ASME code between the 1989 and 1995 editions to determine if the conclusions in the draft GALL report remain valid. Should the changes affect any conclusions in the draft GALL report, the affected conclusions will be re-evaluated and modified, as appropriate. By an April 13, 2000, staff requirements memorandum (SRM), the Commission directed the staff to maintain the current requirements that licensees update their inservice inspection and inservice testing programs every 10 years to the latest edition of the ASME Code that is incorporated by reference in NRC regulations. Therefore, the requirements of 10 CFR 50.55a will result in future changes to those aging management programs that rely on the ASME Code. To ensure that the GALL report conclusions will remain

valid when future editions of the ASME code are incorporated into the NRC regulations by the 10 CFR 50.55a rulemaking, the staff will perform an evaluation of these later editions for their adequacy for license renewal using the 10-element program evaluation described in the GALL report as part of the 10 CFR 50.55a rulemaking.

There are other national codes and standards that are referenced in the draft GALL report, such as those published by the American Concrete Institute (ACI), that are not subject to the Commission's approval process in 10 CFR 50.55a. How should the GALL report reference editions of such national codes and standards? Should specific code editions be cited, and then, an applicant using a different edition would have to verify that the applicant's edition is equivalent to the specific edition cited in the GALL report before the applicant can reference the GALL report evaluation?

4. The draft GALL report identifies specific aging effects, based on operating experience or technical expertise, that should be managed for particular structures and components. The NRC staff expects an applicant to discuss, in its application, any aging effects identified in the draft GALL report for a particular structure or component that the applicant has determined to be not applicable to its plant. However, NEI suggests that an applicant need not address aging effects that were determined not to be applicable. NEI suggests instead that the NRC staff should review the applicant's process for identifying aging effects that should be managed for license renewal. However, the NRC staff believes that such a process is too general and operating experience has shown that aging effects are often system, structure, or component-specific. Although the NRC staff does not expect all aging effects identified in the draft GALL report would be applicable to a particular plant, the draft GALL report does not identify unlikely aging effects and evaluate the associated aging management programs. Thus, the NRC staff believes that any such exception taken by an applicant for its plant should be justified as part of the application. Should an applicant be

required to justify, in its application, the omission of any aging effects identified in the GALL report, that the applicant has determined not to be applicable?

### **Public Workshop**

A public workshop is scheduled during the public comment period on Monday, September 25, 2000, 8:30 am to 4:00 pm. The workshop will provide the participants an opportunity to obtain further information, ask questions, make comments during the discussion, or otherwise facilitate the public in formulating and preparing written comments for NRC consideration on draft DG-1104, draft SRP-LR, and the draft GALL report.

To ensure that all of the ideas raised are recorded, the workshop will be transcribed and the NRC staff will prepare a summary report to categorize the comments. This one-day session attempts to cover a wide range of views and aging management programs. The NRC staff is planning an open forum for the workshop to better solicit public comments. The agenda and format of the workshop have not been finalized. However, a tentative agenda for the workshop follows:

- Registration
- Open Remarks
- License Renewal Rule and Guidance Development Overview
- Draft Regulatory Guide and Industry Guideline (DG-1104 and NEI 95-10)
- Draft Standard Review Plan for License Renewal (SRP-LR)
- Draft Generic Aging Lessons Learned (GALL) report

- Discussion of Federal Register Notice Questions
- Questions and Closing Remarks

Dated at Rockville, Maryland, this 24th day of August, 2000.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/ by DBMatthews

David B. Matthews, Director  
Division of Regulatory Improvement Programs  
Office of Nuclear Reactor Regulation

August 24, 2000

MEMORANDUM TO: David L. Meyers, Chief  
Rules and Directive Branch  
Division of Administrative Services  
Office of Administration

FROM: Christopher I. Grimes, Chief **/RA/**  
License Renewal and Standardization Branch  
Division of Regulatory Improvement Programs  
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