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UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D.C. 20555-0001

May 31, 2000

MEMORANDUM TO: Dr. Mario Bonaca, Chairman
Plant License Renewal Subcommittee

FROM: *Noel Dudley*
Noel Dudley
Senior Staff Engineers

SUBJECT: GENERIC AGING LESSONS LEARNED (GALL) REPORT

The purpose of this memorandum is to forward a draft of the Generic Aging Lessons Learned (GALL) II report to the ACRS members for their information. I recommend that the members do not begin an in depth technical review of this document since the staff plans to issue a revised draft of the GALL II report for public comment in August 2000.

The GALL II report is a basis document to the Standard Review Plan that provides staff guidance in reviewing a license renewal application. License renewal applicants would submit information on specific existing programs that are relied on to manage certain aging effects for particular structures and components and would reference the GALL report as basis for program adequacy. The staff would follow the guidance in the SRP to verify that the applicants have identified the appropriate existing programs.

The staff is in the process of revising the GALL II report based on NEI comments. NEI has submitted comments on several sections of the GALL II report related to electrical and structural components. One of the NEI submittals was sent to the members by a forwarding memorandum dated May 19, 2000.

Also attached is a printout of the NRC web site that contains links to various guidance documents related to license renewal. This web page can be accessed from the NRC home page [www.nrc.gov]. Click on NRC/Reactors/LR/guidance to access the web page.

- Attachments: 1. Draft GALL II Report, dated December 6, 1999 [ML003706633]
2. Guidance Documents on License Renewal
[<http://www.nrc.gov/NRC/REACTOR/LR/guidance.html>]

cc: ACRS Members

cc via e-mail w/o att.:

J. Larkins
H. Larson
S. Duraiswamy
ACRS Fellows and Staff

Guidance Documents on License Renewal

[[Licensing Renewal](#) | [NRC Home](#)]

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Standard Review Plan (SRP)

- Draft Standard Review Plan for the Review of License Renewal Applications for Nuclear Power Plants. This draft Standard Review Plan for License Renewal (SRP-LR) is being revised to incorporate information from the "Generic Aging Lessons Learned" (GALL) report and lessons learned from the staff review of the initial license renewal applications. The SRP-LR provides guidance to the NRC staff for reviewing applications for license renewal. The principle purpose of the SRP-LR is to assure quality and uniformity of staff reviews and to present a well-defined base from which to evaluate applicants programs and activities for the period of extended operation. The staff plans on issuing the draft SRP-LR for public comment in August of 2000. To allow early stakeholder participation, an April 21, 2000, version of the SRP is now available. The draft SRP dated September 1997 is available in a zipped format ([wdsrp97.zip](#)).
- The Environmental Standard Review Plan, NUREG-1555, and Supplement 1, "Operating License Renewal." Issued in October 1999, these documents provide guidance to NRC staff implementing the provisions of 10 CFR Part 51, related to new site/plant applications and license renewal.

Regulatory Guides (RGs)

- Draft Regulatory Guide 1047, "Standard Format and Content for Applications to Renew Nuclear Power Plant Operating Licenses." Issued in August of 1996, this document provides guidance for the format and content of a license renewal application. In addition, the draft RG proposes to endorse NEI-95-10, "Industry Guideline for Implementing the Requirements of 10 CFR Part 54 - The License Renewal Rule." The RG will be revised in final form consistent with the SRP and GALL Report.
- Draft Regulatory Guide 4005, "Preparation of Supplemental Environmental Reports for Application of Renew Nuclear Power Plant Operating Licenses." Issued in July 1998, this document is being developed to provide guidance on the format and content of an environmental report to be submitted as part of a license renewal application.

Technical Reports in the NUREG Series (NUREGs)

- NUREG-1412, "Foundation for the Adequacy of the Licensing Basis." Issued in December 1991, the objective of this report is to describe the regulatory process that assures that any plant-specific

licensing bases will provide reasonable assurance that the operation of nuclear power plants will not be inimical to the public health and safety to the end of the renewal period.

- NUREG-1437, Volumes 1 and 2, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants." Issued in May 1996, this document examines the possible environmental impacts that could occur as a result of renewing licenses of individual nuclear power plants under 10 CFR Part 54.
- NUREG-1437, Vol. 1, Addendum 1, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants." Issued in August 1999, this documents the staff's analysis of the potential cumulative impacts of transporting spent nuclear fuel in the vicinity of a single high-level waste repository, and summarizes the staff's analyses undertaken to determine whether the environmental impacts of the transportation of higher enrichment and higher burnup spent nuclear fuel are consistent with the values of 10 CFR 51.52, Table S-4.
- **NUREG-1437, Supplement 1, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants - Calvert Cliffs Nuclear Power Plant"**, Issued in October 1999, this documents the NRC staff's review of the environmental issues at the Calvert Cliffs Nuclear Power Plant in support of Baltimore Gas and Electric's application for license renewal of Calvert Cliffs Nuclear Power Plant, Units 1 and 2.
- **NUREG-1437, Supplement 2, "Generic Environmental Impact Statement for License Renewal of Nuclear Plants - Oconee Nuclear Station"**, Issued in December 1999. This supplement documents the NRC staff's review of the environmental issues at the Oconee Nuclear Station in support of Duke Energy Corporation's application for license renewal of Oconee Nuclear Station, Units 1, 2, and 3.
- NUREG-1568, "License Renewal Demonstration Program: NRC Observations and Lessons Learned." Issued in December 1996, this document is a summary of NRC staff's observations and lessons learned from nuclear plant site visits performed under the License Renewal Demonstration Program (LRDP). The LRDP was a program established by the NEI to assess the effectiveness of NEI 95-10.
- NUREG-1611, "Aging Management of Nuclear Power Plant Containments for License Renewal." Issued September 1997, this document reconciles the technical information and agreements resulting from NUMARC/NRC industry report reviews and the inservice inspection requirements of Subsection IWE and IWL as promulgated in 10 CFR 5.55a for license renewal.
- NUREG/CR-6490, "Nuclear Power Plant Generic Aging Lessons Learned (GALL)," Volumes 1 and 2. Issued in December 1996, this document contains the review results of the Nuclear Plant Aging Research Program and related information pertaining to nuclear power plant aging effects and plant impact.

Office Letters (OLs)

- OL 805, "License Renewal Application Review Process." This document describes the basic steps of the license renewal application review process and the roles and responsibilities of the different staff organizations involved in a review.
- OL 906, Rev. 1, "Procedural Guidance for Preparing Environmental Assessments and Considering Environmental Issues." This document established procedures and provided guidance pertaining to the preparation of environmental assessments and the consideration of environmental issues for all licensing actions.

Inspection Procedures (IPs)

- **Inspection Procedure 71002, "License Renewal Inspections,"** issued February 3, 1999. This document provides the procedures for inspecting and verifying the documentation, implementation, and effectiveness of the programs and activities associated with an applicant's license renewal program. This procedure will be revised, as needed, to incorporate lessons learned from the first two license renewal applications.
- **Inspection Manual Chapter 2516, "Policy and Guidance for License Renewal Inspection Programs,"** issued February 3, 1999. This document provides guidance to NRC staff, region and consultant personnel for review and inspection activities associated with an applicant's request for a renewed license for a commercial nuclear power plant beyond the initial licensing period under 10 CFR Part 54. This procedure will be revised, as needed, to incorporate lessons learned from the first two license renewal applications.

Nuclear Energy Institute (NEI) Guidance

- Revision 1 to NEI 95-10, "Industry Guidelines for Implementing the Requirements of 10 CFR Part 54 - The License Renewal Rule," was submitted to the NRC by letter dated January 24, 2000. This document provides potential applicants with guidelines for identifying the systems, structures, and components with the scope of 10 CFR Part 54 and their functions; identifying structures and components subject to aging management review; assuring that effect of aging are maintained, application of inspections for license renewal; identifying and resolving time-limited aging analyses; and identifying and evaluating exemptions containing time-limited aging analyses. This document is available through the Public Electronic Reading Room. The accession numbers for the transmittal letter and guidance document are ML003681771 and ML003681909, respectively.

Generic Aging Lessons Learned (GALL) Report

- **Draft Generic Aging Lessons Learned report.** This draft was issued at the December 6, 1999, NRC public workshop to gather opinions on credit for existing programs for license renewal. The draft GALL report contains a generic evaluation to document which existing programs should be augmented for license renewal and which programs adequately manage aging effects without change. The GALL report would be the basis in the Standard Review Plan for License Renewal. The staff is making the draft GALL report public available in an attempt to seek early stakeholder participation. The staff will consider public comments to further develop the draft GALL report. The staff plans on issuing the draft GALL report for formal public comment in August of 2000.