

SECTION 9

GENERAL SAFETY EVALUATION REPORT WRITING EXPECTATIONS

Purpose

The purpose of the license renewal safety evaluation report (SER) is to document and summarize the results of the staff's safety review of the license renewal application (LRA). The SER describes the technical details considered in the staff's evaluation of the safety aspects of a unit's proposed operation for up to an additional 20 years beyond the term of the current operating license. It is important to stakeholders and members of the public reading SERs that the staff clearly documents its review methodology and the basis for its findings and conclusions.

Background

The U.S. Nuclear Regulatory Commission (NRC)'s Office of the Inspector General (OIG) audited the effectiveness of the license renewal program, as documented in OIG-07-A-15, "Audit of the NRC's License Renewal Program," dated September 6, 2007 (ML072490486). The report, which is publically available, concluded that, overall, the NRC has developed a comprehensive license renewal process to evaluate applications for extended operation. However, the OIG identified several areas where improvements would enhance program operations. One area pertained to report writing, including SERs.

To enhance this program area, the OIG, in its first recommendation, suggested that NRC establish report-writing standards for describing the license renewal review methodology and for providing support for conclusions in license renewal documents. In its second recommendation, the OIG suggested revision to the report quality assurance process to establish management controls to gauge the effectiveness of the existing report review process and to implement procedures for taking additional steps if report quality does not meet management expectations.

Implementation

Division of License Renewal management has developed the following general SER writing expectations to address these OIG recommendations. Cognizant staff members are expected to follow these guidelines in preparing and reviewing license renewal SERs. These expectations, in part, will also form the criteria for the SER process review described in Appendix 30 to the License Renewal Project Manager Handbook.

Expectations

In preparing and writing the SER, management expects staff to:

I. Continue to follow SER preparation standards in existing guidance.

Discussion: Office Instruction LIC-101, Revision 3, "License Amendment Review Procedures," NUREG-1800, Revision 1, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants" (SRP-LR), NUREG-1801,

Revision 1, "Generic Aging Lessons Learned (GALL) Report," and the SER Style Guide all provide SER preparation guidance that the staff should continue to follow.

II. Reference relevant applicant documents such as the LRA and responses to requests for additional information (RAI); briefly summarize or paraphrase information provided in such documents, if necessary, without cutting and pasting.

Discussion: The SER is intended to document the staff's evaluation and analysis of the LRA and related applicant-provided information, not repeat it. The applicant's LRA and related information are publically available. It is sufficient to reference correspondence from the applicant and appropriate sections of the LRA, while briefly summarizing or paraphrasing if necessary. Cutting and pasting applicant information into the SER adds unnecessary length. For example, rather than copying lengthy statements from the LRA describing the applicant's Flow-Accelerated Corrosion Program in detail, paraphrase and summarize as follows: "*LRA Section B.1.15 describes the applicant's Flow-Accelerated Corrosion Program. This program manages aging effects by predicting, detecting, and monitoring flow-accelerated corrosion in plant piping and other pressure-retaining components.*"

III. Reference relevant NRC documents and correspondence such as the SRP-LR, the GALL Report, or requests for additional information (RAI); briefly summarize or paraphrase information provided in such documents, if necessary, without cutting and pasting.

Discussion: It is unnecessary to quote the SRP-LR, the GALL Report, and NRC correspondence at length. These documents are also publically available. Provide references to the relevant sections of the SRP-LR, the GALL Report, or other correspondence and summarize or paraphrase if necessary. For example, a necessary reference to the SRP-LR can be summarized as follows: "*SRP-LR Section 3.3.2.2.9 states that a one-time inspection of selected components at susceptible locations is an acceptable method to ensure that corrosion is not occurring and that the component's intended function will be maintained during the period of extended operation.*" Similarly, a reference to an RAI can be summarized as follows: "*By letter dated October 19, 2002, the staff issued RAI 3.1.1.22 asking the applicant to provide a basis as to why the expansion joints in the condenser circulating water system have no aging effects requiring management.*"

IV. Differentiate clearly between applicant-provided information and the staff's independent analysis and conclusions.

Discussion: The OIG found in some cases that identical or nearly identical word-for-word repetition of LRA text in SERs is not offset or otherwise marked to indicate that it is identical to text in the LRA. OIG further found that the lack of precision in differentiating quoted and unquoted text makes it difficult for the reader to distinguish between applicant-provided information and the staff's independent assessment, review methodology, and conclusion. OIG opined that a reader could conclude that he or she was reading NRC's independent analysis and conclusions when, in fact, it was actually the applicant's analysis and conclusions.

Items II and III above address the management expectation that relevant applicant-provided information, and staff information in other staff documents, will be

paraphrased and summarized rather than quoted. To further ensure readers can distinguish between applicant-provided information and staff's analysis, when paraphrasing the LRA or other applicant correspondence, such as a response to an RAI, care should be taken to make sure that applicant-provided information is attributed to the applicant, e.g., *"The applicant stated that..."* If the applicant's information is being paraphrased in several sentences, add additional attribution clauses to ensure the reader is aware we are continuing to summarize applicant information, e.g., *"The applicant further stated that..."* Doing so will avoid confusion. Similarly, clearly attribute staff evaluation and conclusions to the staff. For example: *"The staff finds that there are no aging effects requiring management for these elastomers because..."*

Management recognizes that, in rare cases, it may be appropriate to quote applicant-provided information directly. Quotes should only be used when the applicant's exact wording is essential to the staff's review.

V. Summarize the staff's review methodology and explain the technical basis for staff findings and conclusions.

Discussion: The OIG audit also found that the staff's description of the methods used and the support provided for conclusions in the SER often lacked substance. While not questioning the technical adequacy of the review, the OIG in essence questioned the adequacy of the staff's documentation of the review methodology and the basis for reaching its conclusions.

The public has a strong interest in understanding how the staff arrives at its technical conclusions about the adequacy of the LRA. In addition, the staff could be called upon to explain its findings and conclusions in hearings and other forums. Thus the SER must do more than simply state that the staff reviewed x, y, and z, and concludes it is acceptable. We should summarize the review methodology and explain why we concluded that an item is acceptable or not by articulating the technical basis for the conclusion.

The depth of the technical explanation will vary. For example, consistent with existing guidance, for aging management programs fully consistent with the GALL Report's recommendations, it is sufficient to state that the staff verified the program is consistent with the GALL Report and verified that the bounding conditions are met; therefore, the program is acceptable, e.g., *"The staff finds the applicant's aging management of inaccessible concrete areas acceptable because the applicant's ground water chemistry data show that pH, chlorides, and sulfates are within the GALL Report's limits for non-aggressive ground water, as specified in item III.A8-3."* Aging management programs that take exception to the GALL Report, or plant-specific programs, require a fuller technical discussion as to what the staff reviewed and why the program is or is not acceptable. For example, to accept a plant-specific program, we should explain how the applicant's program satisfies the applicable ten program elements.

Similarly, if the staff disagrees with the applicant, it should articulate the basis for the disagreement. For example: *"In LRA Section B.1.10, the applicant stated that its Environmental Qualification of Electric Components Program is consistent with GALL AMP X.E1. However, after comparing the applicant's program element descriptions to those in the GALL Report, the staff found that the applicant's program does not contain*

the GALL Report's recommendation to include re-analysis attributes, which are important for extending the qualified life of components managed by this program."