

August 20, 2012

Mr. Michael Gallagher  
Exelon Nuclear  
200 Exelon Way  
Kennett Square, PA 19348

SUBJECT: COMMENTS ON LICENSE RENEWAL INTERIM STAFF GUIDANCE, LR-ISG-2011-05, "ONGOING REVIEW OF OPERATING EXPERIENCE"

Dear Mr. Gallagher:

The purpose of this letter is to inform you that the U.S. Nuclear Regulatory Commission (NRC or the staff) has considered all comments provided by Exelon Generation Company, LLC on the license renewal interim staff guidance (LR-ISG), LR-ISG-2011-05, "Ongoing Review of Operating Experience." This final LR-ISG has been issued and clarifies the staff's existing position in NUREG-1800, Revision 2, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants," that acceptable license renewal aging management programs should be informed, and enhanced when necessary, based on the ongoing review of both plant-specific and industry operating experience.

On August 24, 2011, the NRC issued draft LR-ISG-2011-05 for public comment and on November 25, 2011, issued a revised draft for public comment. Exelon Generation Company, LLC, provided comments by letters dated October 18, 2011, and December 15, 2011. By letter dated March 9, 2012, the NRC staff informed you of the issuance of the final LR-ISG-2011-05 and its consideration of the comments from your October 18, 2011, letter. Due to an error in the agency's administrative process, we did not receive the comments from your December 15, 2011, letter until after the issuance of the final LR-ISG-2011-05. However, after receiving your comments, we initiated a review to determine if the staff's assessment of the comments would have impacted the content of the final LR-ISG-2011-05, if they had been received prior to its issuance. Our review determined that they would not have changed the content of the final LR-ISG-2011-05. In addition, we determined that a number of your comments were similar to comments made by other stakeholders that had been previously addressed with the issuance of the final LR-ISG-2011-05.

M. Gallagher

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At this time, to be as responsive as possible, we are including the results of our assessment of your December 15, 2011, comments as an enclosure to this letter. We apologize for the inconvenience caused by this oversight. If you have any questions, please contact Mr. Matthew Homiack, of my staff by telephone at 301-415-1683 or by e-mail at [Matthew.Homiack@nrc.gov](mailto:Matthew.Homiack@nrc.gov).

Sincerely,

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Melanie A. Galloway, Acting Director  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Enclosures:  
As stated

cc w/encls: Reactor License Renewal  
Stakeholder Group Listserv

**NRC Staff Responses to Exelon Comments on Draft LR-ISG-2011-05 dated December 15, 2011**

No.	Summary of Comment	NRC Staff Response
1	<p>The enhancements to industry operating experience programs currently being proposed in LR-ISG-2011-05 have not had the benefit of review and input from the Institute of Nuclear Power Operations (INPO) or personnel within NRC responsible for review of operating experience. The Division of License Renewal staff should engage INPO and the appropriate NRC groups responsible for operating experience review and evaluation to ensure that changes resulting from license renewal implementation are appropriate from a broad perspective.</p>	<p>Disagree. The Office of Nuclear Reactor Regulation operating experience branch was engaged in the development of the LR-ISG. Further, as discussed in the response to Comment No. 11B in the final LR-ISG, the NRC staff does not agree that either the INPO operating experience program or its endorsement in NRC Generic Letter (GL) 82-04, "Use of INPO SEE-IN Program," require revision because the LR-ISG describes actions to be accomplished by a license renewal applicant, not INPO. As stated in GL 82-04, "Participation in [the INPO operating experience program] does not relieve a utility from taking those actions specific to the utility's nuclear unit."</p>
2	<p>Implementation of the enhancements to the operating experience program should be performed on a schedule consistent with enhancements being made to existing aging management programs (AMPs) or establishment of new AMPs for license renewal. Change the implementation date to indicate that, "... it is desired that the augmentations should be incorporated into the programmatic operating experience review activities as soon as practical following issuance of the renewed license, but in any case no later than entry into the period of extended operation and then implemented on an ongoing basis throughout the term of the renewed license."</p>	<p>Disagree. As discussed in the response to Comment No. 11A in the final LR-ISG, the requirements of Part 54, "Requirements for Renewal of Operating Licenses for Nuclear Power Plants," of Title 10 of the <i>Code of Federal Regulations</i> (10 CFR Part 54), do not preclude the possibility that some actions may need to be taken in the period between the renewed license issuance date and the start of the period of extended operation in order to adequately manage the effects of aging during the period of extended operation.</p>
3	<p>The LR-ISG suggests that applicants should enhance their operating experience review programs to seek out "guidance documents and other publications when they contain lessons learned applicable to aging management." The other enhancements described in the LR-ISG (e.g., treating AMP activities as operating experience, establishing trend coding, training, and sharing age-related operating experience with the industry) provide sufficient assurance that applicants will appropriately consider operating experience in managing the effects of aging. In addition, the products defined within the established NRC Generic Communications Program are appropriate vehicles to</p>	<p>Disagree. As discussed in the response to Comment No. 23 in the final LR-ISG, neither Item I.C.5, "Procedures for Feedback of Operating Experience to Plant Staff," of NUREG-0737, "Clarification of TMI Action Plan Requirements," nor the INPO operating experience program endorsed by GL 82-04, contain an explicit listing of all sources of operating experience. However, like the final LR-ISG, they do provide a framework for the kind of information that should be considered as a source of operating experience. Applicant personnel, through their knowledge of their AMPs and involvement in industry research programs, working groups, etc., should have sufficient opportunities to be made aware of new</p>

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	<p>highlight information identified by the NRC related to aging management that should be considered by licensees. Exelon does not agree that guidance documents, which are produced and used for many purposes, merit the establishment of “written plans and expectations for finding this type of document and processing it as operating experience.” The scope of this particular enhancement should be reduced to focus on NRC Generic Communications as described above.</p>	<p>information on age-related degradation and aging management, and should be able to determine whether this new information warrants review under the operating experience program. Therefore, as discussed in the LR-ISG, it is not unreasonable for applicants to have written plans and expectations to this effect.</p>
4	<p>In this sentence: “Evaluations of all plant-specific and industry operating experience include assessments of potential aging management impacts,” the word “all” should be eliminated, or a clarification should be provided to include a screening step. Although much of the plant-specific and industry operating experience does involve plant hardware failure or degradation, there are many cases where information shared and evaluated involves things such as human performance issues that provide valuable lessons learned but do not potentially involve aging of systems, structures, and components within the scope of license renewal.</p>	<p>Agree. As discussed in the response to Comment No. 24A in the final LR-ISG, the LR-ISG was revised to indicate that it is acceptable to screen incoming operating experience items to determine if they potentially concern age-related degradation and then to assess them accordingly.</p>
5A	<p>The LR-ISG specifies that, on an ongoing basis, each case of plant-specific and industry operating experience should be subject to an aging management review similar to what is done during the license renewal application process. This guidance should be simplified to focus on a more practical expected outcome for the operating experience reviews. For example, the LR-ISG should state: “Evaluation of plant specific and industry operating experience that has been identified as containing issues concerning age-related degradation shall be evaluated for potential aging management impacts. These evaluations should consider the impact of the aging on the effectiveness of the existing AMPs or the need for new AMPs. The evaluations should be broad in nature, considering extent of condition and not limited in scope to specific systems or component types.”</p>	<p>Disagree. As discussed in the response to Comment No. 24A in the final LR-ISG, the LR-ISG states that specific information, such as materials, environments, and aging effects, should be assessed when evaluating operating experience related to aging. Assessment of this information, to the fullest extent possible, is needed to determine the extent to which the operating experience may impact the aging management activities. This same information is also assessed in the aging management reviews conducted by applicants when preparing their license renewal applications. The suggested language would result in the replacement of these specific assessment criteria with a more general assessment of aging impacts, which could result in a less complete and effective evaluation.</p>

No.	Summary of Comment	NRC Staff Response
5B	The sentence regarding establishment of criteria for revising AMPs or developing new AMPs is not needed, as the site corrective action process would address these aspects.	Agree. It is not necessary to establish specific criteria to determine when to revise the AMPs or develop new AMPs. The criteria should be based on whether the effects of aging are adequately managed. This sentence has been removed and the LR-ISG has been revised to indicate that, if it is found through evaluation that any effects of aging may not be adequately managed, then a corrective action should be entered into the 10 CFR Part 50, Appendix B, program to either enhance the AMPs or develop and implement new AMPs.
5C	The bullet which provides detailed expectations related to training of personnel involved with review of aging-related operating experience should be simplified to focus on the objectives of the training.	Agree. As discussed in the response to Comment No. 26 in the final LR-ISG, the overall description of training has been reduced and made less prescriptive, so that it focuses only on the most important aspects of the training.
6	The language in the LR-ISG should focus on not excluding from the operating experience review processes information on license renewal systems, structures, and components or AMPs. For example, the LR-ISG should state: "... [t]he processes do not exclude information on license renewal structures and components identified in the integrated plant assessment," and "... [t]he processes do not exclude the AMPs credited for ..."	Agree. As discussed in the response to Comment No. 2 in the final LR-ISG, the language in the LR-ISG was clarified to indicate that information concerning AMPs and systems, structures, and components constitutes operating experience on age-related degradation and aging management and that the operating experience review processes should not preclude review of this information.
7	The LR-ISG suggests some required action beyond retaining the results of AMP-related testing or inspection that meet the acceptance criteria. It is suggested that the LR-ISG be simplified to read: "... when acceptance criteria are met, results are retained for potential future use."	Disagree. Aging is a continuous process and can be expected to occur. Therefore, regardless of whether the acceptance criteria of a particular AMP have been met, it is necessary to review the results to determine whether aging is being adequately managed. For example, if no aging has been detected, the acceptance criteria may not be stringent enough or other locations may need to be sampled. Therefore, a determination should be made as to whether the frequency of future inspections should be adjusted, whether new inspections should be established, and whether the inspection scope should be adjusted or expanded.

<b>No.</b>	<b>Summary of Comment</b>	<b>NRC Staff Response</b>
Comment in Body of Submittal Letter	<p>Exelon notes that the NRC issued a revision to Inspection Procedure 71152, "Problem Identification and Resolution" on December 5, 2011, effective January 1, 2012, that includes guidance to regional inspectors for evaluation of licensee performance related to aging management activities. While Exelon believes that the new guidance is technically appropriate, the timing for when it should be applied to plants with renewed licenses may be confusing. The guidance implies that AMPs are established at the time a renewed license is issued. Although in many cases this is true, especially with pre-existing programs credited for aging management, new or enhanced programs are generally not required to be effective until a plant enters its period of extended operation, which is often at least several years after the renewed license is issued.</p>	<p>Disagree. The issue of different implementation dates for AMPs and enhancements to AMPs was considered in the development of the revised inspection procedure. The staff determined that, since not all the implementation dates were linked to the period of extended operation, some flexibility was needed in the procedure to address each situation on a case-by-case basis.</p>

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Sincerely,

**/RA/**

Melanie A. Galloway, Acting Director  
Division of License Renewal  
Office of Nuclear Reactor Regulation

Enclosures:  
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Stakeholder Group Listserv

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