



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

January 30, 2020

MEMORANDUM TO: Eric R. Oesterle, Chief
License Renewal Projects Branch
Division of New and Renewed Licenses
Office of Nuclear Reactor Regulation

FROM: William F. Burton, Senior Project Manager */RA/*
License Renewal Projects Branch
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Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF DECEMBER 12, 2019, CATEGORY 2 PUBLIC
MEETING ON LESSONS LEARNED FROM THE REVIEW OF THE
FIRST SUBSEQUENT LICENSE RENEWAL APPLICATIONS

On March 28, 2019, the U.S. Nuclear Regulatory Commission (NRC) held a Category 2 public meeting to discuss the NRC staff and industry experience in the review of River Bend Station, Unit 1 initial license renewal application which piloted the optimized 18-month review process for subsequent license renewal (SLR) applications, as well as the reviews of the first three SLR applications: Turkey Point Nuclear Generating Units 3 and 4, Peach Bottom Atomic Power Station, Units 2 and 3, and Surry Power Station, Units 1 and 2. At this meeting, the staff and industry agreed that the highest priority was the identification of technical issues for which revisions to the Generic Aging Lessons Learned (GALL-SLR) and Standard Review Plan for Subsequent License Renewal (SRP-SLR) (NUREG-2191 and NUREG-2192, respectively) guidance documents are needed.

On December 12, 2019, the NRC held a second Category 2 public meeting to discuss lessons learned from the NRC staff reviews of the three SLR applications. The focus of this second meeting was on the technical issues that are ripe for inclusion in revisions to the SLR guidance documents.

The public meeting agenda (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19329E525) included presentations by the NRC staff (ADAMS Accession Nos. ML19345F191 and ML19331A477) and the industry (ADAMS Accession Nos. ML19351C832 and ML19345F110). As a Category 2 meeting, the public was invited to participate in the meeting by discussing regulatory issues with the NRC staff at designated points identified in the agenda.

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Main Messages

- The NRC and the industry agreed on the high-priority GALL-SLR and SRP-SLR revisions to ensure that the preparation and review of future SLR applications will be more effective and efficient.
- The NRC and industry agreed that various methods should be used to issue GALL-SLR and SRP-SLR revisions. The method used would consider the priority of the revisions. The NRC and industry agreed that the next public meeting should be held as soon as possible to discuss other improvements to the SLR application review process.

Summary of Discussions

The meeting began with a welcome to all participants and a review of the main messages from the previous SLR lessons learned meeting as well as a status of the three SLRA reviews (main messages reproduced below with commentary provided at the meeting in italics):

- The optimized 18-month SLRA review process is working, however, there are still process improvement opportunities. *The focus of this meeting is on technical guidance updates and process improvements will be addressed at the next meeting.*
- Early and frequent communication between the NRC staff and industry has been effective in the new SLRA review process. *NRC staff continue to have frequent and ongoing communications with the SLRA applicants.*
- The new SLRA review process has led to fewer and higher quality requests for information (RAIs). *Previous reviews for initial license renewal average approximately 200 – 300 RAIs. The most recent initial license renewal reviews for Waterford and River Bend had around 120 RAIs. The numbers of RAIs for each of the SLRA reviews were about less than 80.*
- Although there have been some task scheduling and priority challenges that have impacted interim milestone schedules, the NRC and applicants have maintained flexibility to address these challenges while remaining focused on meeting the 18-month review schedules. *The NRC and the applicants have continued to maintain this flexibility to address challenges while maintaining the 18-month review schedule.*
- To maintain dialogue initiated at the March 28, 2019 lessons learned meeting, the NRC staff and industry have committed to engage approximately quarterly to discuss lessons learned and to align and prioritize steps to be taken to prepare for the next SLR applications. *While the NRC focused on its SLRA review workload and maintaining its review schedules, it was temporarily unable to maintain the quarterly engagement goal, however it will be resuming the quarterly engagements.*

Status of SLRA reviews as of the date of this meeting:

1. As stated in its notification to the Commission, the NRC staff completed the environmental and safety reviews for the Turkey Point Units 3 and 4 subsequent renewed licenses within 18-months. The subsequent renewed licenses for Turkey Point Units 3 and 4 were issued on December 4, 2019.
2. The NRC staff presented the results of its safety review of the SLRA for Peach Bottom Units 2 and 3 to the Advisory Committee on Reactor Safeguards (ACRS) on December 4, 2019. (Following this meeting, on December 19, 2019, the ACRS issued its recommendation letter to the Commission for issuing the subsequent renewed licenses for Peach Bottom Units 2 and 3 (ADAMS Package Accession No. ML19353D382)).

3. The NRC staff is on schedule to issue the draft safety evaluation report for the SLRA for Surry Units 1 and 2 in December 2019. (Following this meeting, on December 27, 2019, the staff issued its draft safety evaluation report for the Surry SLRA to support its meeting with ACRS Subcommittee on Plant License Renewal scheduled for February 5, 2020 (ADAMS Accession No. ML19353C656)).

The following lessons learned discussions during the meeting were focused on different revisions to technical guidance proposed by the NRC staff and the industry. The following discussions between the NRC and industry resulted in agreement that the technical issues below are high-priority:

Aging Management Program (AMP) XI.M16A- PWR Vessel Internals

The NRC and the industry agreed that AMP XI.M16A and associated aging management review (AMR) items should be revised to incorporate MRP-227 Rev. 1A to reduce the information needed for inclusion in the gap analysis.

AMP XI.M2 – Water Chemistry and AMP XI.M21A – Closed Treated Water Systems

The NRC and the industry agreed that these AMPs should be revised to incorporate the most recent EPRI water chemistry guidance, including EPRI documents 3002010645, Rev. 8, 3002002623, Rev. 1, and 3002000590, Rev. 2.

AMP XI.M42 – Internal Coatings/Linings for In-Scope Piping, Piping Components, Heat Exchangers, and Tanks and XI.M27 – Fire Water System

The NRC and the industry agreed to clarify when XI.M27 tests and inspections can be used for XI.M42 lining and coating inspections.

AMP XI.M12 - Thermal Aging Embrittlement of CASS

The NRC and the industry agreed that revisions to this AMP are needed to incorporate the 2019 revision of the ASME code to increase the allowable CASS ferrite content.

Structural AMPs and AMR items

The NRC and the industry agreed to consider revisions to reduce plant-specific structural AMR items in Table 3.5-1, address effects of irradiation embrittlement for reactor pressure vessel structural steel, and clarify the use of a fatigue waiver calculation in place of a supplemental surface exam for pressure retaining components that are subject to cyclic loading but have no fatigue analysis.

AMP XI.E7 – High-Voltage Insulators and AMPs XI.E3A/B/C – Electrical Insulation for Inaccessible Cables not Subject to Environmental Qualification Requirements

The NRC and the industry agreed to revise this AMP to address additional high-voltage materials and medium voltage materials and address inspection of manholes with level monitoring and alarms.

Notes F-J

The NRC and the industry agreed to add AMR items to allow removal of F-J notes. In addition to the high-priority issues above, the NRC staff discussed additional revisions to the GALL-SLR and SRP-SLR. These issues are identified in the NRC staff's presentation slides (ADAMS Accession No. ML19345F191).

Additional Discussion Topics

Revision Options

In addition to extensive discussions on proposed revisions to the GALL-SLR and SRP-SLR, the NRC and industry discussed options for issuing the revisions in a timely manner. These options included the use of errata sheets to make minor changes and editorial changes to the guidance documents, issuance of interim staff approval letters, issuance of guidance revisions through new Interim Staff Guidance (ISG) or revisions to existing ISGs, or direct revision of the GALL-SLR and the SRP-SLR.

The NRC and staff agreed that each of the options could be used to issue proposed revisions for public consideration except direct revision of the GALL-SLR and SRP-SLR, which would not support timely consideration and inclusion for near-term SLR applications.

The NRC staff will review the proposed revisions and identify the appropriate option to issue the revisions in a timely manner.

Schedule

The NRC staff will develop schedules based on the options that will be used for each proposed revision.

Next Lessons Learned Meeting

The NRC and the industry agreed that the next Lessons Learned meeting should be scheduled as soon as possible to address other priority issues, particularly improvements to staff audits and consideration of further risk informing the SLRA reviews.

Public Participation

No questions or comments were provided to the NRC staff during the public participation portions of the meeting.

Action Items/Next Steps

The NRC staff will (1) decide on the appropriate documentation vehicles to issue the various guidance document revisions, (2) develop proposed schedules for the document revisions, and (3) propose a date for the next Lessons Learned Meeting.

Enclosures:
Attendees List

Attachments

- NRC Slides – ML19345F191
- Potential Topics for SLR – Related ISGs - ML19331A477
- NEI Proposed Changes to NRC SLR ISGs, Short List of Significant SLR Changes Requested – ML19345F110
- NEI Slides - Proposed NRC SLR Changes: Industry Perspectives – ML19351C832

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ADAMS Accession No. ML20030A808 (Package)
Meeting Summary ML20016A347
Meeting Notice/Agenda ML19329E525
Industry Slides ML19345F191

OFFICE	PM:DNRL:NLRP	LA:DNRL:NLRP	BC:DNRL:NLRP	PM:DNRL:NLRP
NAME	WBurton	YEdmonds	EOesterle	WBurton
DATE	1/29/2020	1/28/2020	1/30/2020	1/30/2020

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Lessons Learned Public Meeting:

List of Meeting Attendees

December 12, 2019

Name	Affiliation
Aitken, Paul	Dominion
Blocher, Eric	Dominion
Heah, Craig	Dominion
Hekking, Lori	Duke
Nader, Rounette	Duke
Robison, Greg	Duke
Saville, Chris	Duke
McFarland, Mitch	Enercon
Young, Garry	Entergy
Wong, Emma	EPRI
Gallagher, Mike	Exelon
Kauffman, Scott	Exelon
Miller, Mark	Exelon
Weyhmuller, Paul	Exelon
Franzone, Steve	FPL
Hamrick, Steve	FPL
Sutton, Kathryn	Morgan Lewis
Simons, John	MPR
Maher, Bill	NextEra
Earls, Chris	NEI
Bradford, Anna	NRC
Brady, Bennett	NRC
Burton, William	NRC
Chereskin, Alex	NRC
Comar, Manny	NRC
Gibson, Lauren	NRC
Gonzalez, Hipolito	NRC
Holston, William	NRC
Hull, Amy	NRC
Johnson, Andrew	NRC
Khanna, Meena	NRC
Lopez, Juan	NRC
Makar, Greg	NRC
McConnell, Matt	NRC
Medoff, Jim	NRC
Moyer, Carol	NRC
Nguyen, Duc	NRC
Oesterle, Eric	NRC
Prinaris, Andrew	NRC
Rikhoff, Jeffrey	NRC
Dorsey, Keith	SNC
Marlow, Brandon	SNC
McElroy, Ken	SNC

Name	Affiliation
Walden, Scott	SNC
Donahue, Peter	TVA
Annett, Jim	Verizon
Zalewski, Tom	Westinghouse
Young, Paul	Xcel