



U.S.NRC

UNITED STATES NUCLEAR REGULATORY COMMISSION

Protecting People and the Environment

Subsequent License Renewal (SLR)
Lessons Learned
Public Meeting
March 28, 2019

AGENDA

- Welcome and Introductions
- Background
- Review Process Changes
- Strengths
- Areas for Improvement
- Discussions on NRC presentation
- Industry/Applicant presentations
- Discussions on Industry/Applicant presentations
- Summary
- Closeout and Adjourn

BACKGROUND

- NRC established an optimized 18-month review schedule for SLR applications
- Piloted on the River Bend license renewal application - completed in 16 months
- NRC has received 3 SLR applications for review since January 2018
 - Turkey Point in January 2018 (accepted 5/2/18)
 - Peach Bottom in July 2018 (accepted 9/6/18)
 - Surry in October 2018 (accepted 12/3/18)
- No initial license renewals currently under review

BACKGROUND (Con't)

- SLR applicants have each gone through or are going through several phases of the review process
 - Pre-submittal
 - Acceptance Review
 - Audits
 - RAIs
- Lessons learned from NRC perspective
- Lessons learned from Applicant perspectives including the piloted River Bend license renewal application

Review Process Changes

- SLR Application (SLRA) review optimization effort identified several changes
- Piloted on River Bend license renewal review
- Pre-submittal meetings
- SLRA acceptance review performed by technical staff assigned to review v. tiger team approach
- 18 month schedule begins upon SLRA acceptance for docketing

Review Process Changes (Con't)

- Applicant provides access to electronic portal (no later than acceptance of the SLRA in order to support the review schedule)
- Aging Management Audits (Safety)
 - Offsite Aging Management Program Operating Experience Audit
 - In-Office Aging Management Audit via telecom/webinar breakout sessions
 - On-Site Aging Management Audit with regional participation to walk down specific material conditions and plant configurations

Review Process Changes (Con't)

- Documents and meetings
 - Draft SEIS public meeting if necessary (environmental)
 - Streamlined SER process
 - Advisory Committee on Reactor Safeguards (ACRS) meetings on safety review – only one ACRS Subcommittee meeting
 - ACRS Full Committee meeting scheduled within two months following SC meeting

Previous Lessons Learned

- NRC staff provided lessons learned from initial license renewal reviews to industry/applicant in December 2017 (ML17353A035)
- Re-iterated these lessons learned during pre-submittal meetings and provided additional plant specific topics
 - Peach Bottom (ML19084A098)
 - Surry (ML18121A034)
- Info on lessons learned and preparing for NRC review also provided at ANS Utility Working Conference in August 2018 (ML18198A273)

Preparing for NRC Review

- Communicate with NRC – frequently / timely
- Communicate w/other applicants / prospective
- Peer reviews
- Review most recent NRC RAIs
- Ensure internal application consistency
- Ensure CLB issues are addressed prior to SLRA
- Address NRC concerns from previous reviews (ML17353A035)
- Facilitate the NRC's review

Preparing for NRC Review

- Pre-Submittal Meetings
 - Environmental at least 12 months prior to submittal
 - Safety at least 6 months prior to submittal
- Referencing unapproved Topical Reports or unapproved methodologies
- Proprietary information – must be reviewed before application can be made public
- Portal for documentation
- Update program for consistency with GALL-SLR and SRP-SLR

SLR Reviews - STRENGTHS

- Excellent communication during all phases of the review
- Excellent responsiveness to NRC requests for info on portal, clarifications on draft RAIs, and responses to final RAIs
- Portal demonstrations were very helpful
- Good RAI quality
 - More detailed
 - Higher-quality dialogue/clarification calls
 - Allowed for better informed RAI response
 - Fewer 2nd-round RAIs

SLR Reviews - STRENGTHS

- Excellent support during audits
- Optimized effectiveness of in-house audits through use of Skype
- Staff provided questions and talking points to better focus the audit discussions
- On-site audit needs better assessed and limited to only those that are actually needed
- Application quality is on an improving trend

SLR - AREAS FOR IMPROVEMENT

- Pre-Submittal
 - Submit SLRAs about 6 months apart
 - Begin PM outreach activities 6 months before SLRA submittal
 - Highlight new, challenging, plant-specific, and or unique technical and process issues
 - Allows time to align people and resources early
 - Allows time to consider impacts on the review schedule

SLR - AREAS FOR IMPROVEMENT

- Pre-Submittal
 - Minimize proprietary information in the SLRA – must be reviewed before application can be made public
 - Prepare OpE database as soon as possible
 - Clarify level and type of access requirements to the CAP database early
 - Clarify usage of terms “not applicable” vs. “not used”
 - Communicate more clearly staff process regarding vetting of acceptance issues and decisions

SLR - AREAS FOR IMPROVEMENT

- Pre-Submittal
 - Compare refueling outage plans to the anticipated application review schedule. If conflicts exist, the application submission should be advanced or delayed to minimize the conflicts.
 - Understand criteria on sufficiency for environmental review
 - The NRC staff will need to see (not review) the SAMA new and significant basis document to support the application acceptance determination.

SLR - AREAS FOR IMPROVEMENT

- Acceptance Review
 - Portal operable, as needed, during acceptance review
 - Portal fully functional at the conclusion of the acceptance review
 - Provide index of the folders on the portal to make it more user friendly

SLR - AREAS FOR IMPROVEMENT

- Audits
 - Optimize effectiveness of in-house audits through use of Skype by NRC
 - Staff assess and minimize number of on-site audits to those essential
 - Staff provide questions and talking points in advance of in-office audit to focus discussion
 - Challenging areas should be scheduled later for the in-office audit
 - If applicant commits to a voluntary SLRA supplement during breakout session, public meeting, or teleconference, clarify submittal date

SLR - AREAS FOR IMPROVEMENT

- Audits (Con't)
 - Don't provide voluntary supplements if supplement was not proposed and agreed upon as the appropriate course of action
 - Schedule 3 days at most for the environmental site visit
 - Include in the OpE database a master sheet of the Excel search term tabs

SLR - AREAS FOR IMPROVEMENT

- Requests for Additional Information (RAIs)
 - Qualitative evaluations and conclusions should be supported by quantitative evaluations for staff review
 - Example: applications should include enough information for the staff to verify calculations have been performed in accordance with RG 1.190
 - Technical analysis based on unapproved Topical Reports or unapproved methodologies require sufficient staff resources and appropriate documentation for staff review

SLR - AREAS FOR IMPROVEMENT

- Application information
 - Don't include a reference if unsure if it supports a consistency determination in GALL-SLR. References should clearly support the consistency determination.
 - Provide clarity in language for commitments in SLRA Appendix A and for enhancements or exceptions (actions to be taken, when, and how action relates to the enhancement or exception)
 - Each program element should be addressed in the program basis documents, not generally repeat the same information for several program elements without discernment between the elements.

SLR – New Issues

- New issues have been identified during the reviews of the first 3 SLRA's that could result in Interim Staff Guidance (ISG) documents:
 - Impact on material properties and intended function due to irradiation of structural steel
 - Management of aluminum or stainless steel support members, welds, bolted connections, or support anchorage to building structure components for loss of material due to pitting and crevice corrosion, and cracking due to stress corrosion cracking (SCC)



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DISCUSSION