



**Subsequent License Renewal (SLR)  
Draft Generic Aging Lessons Learned Report &  
Standard Review Plan Guidance Documents  
Public Meeting**

Office of Nuclear Reactor Regulation  
Division of License Renewal

**February 19, 2016**

# Agenda

- Summary of Significant Changes:
  - Structural Aging Management Programs (AMPs)
  - Electrical AMPs
- Technical Basis Document Format
- XI.M16A Pressurized Water Reactor Vessel Internals

# SLR Guidance

- **Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report (NUREG-2191)**
  - Provides generic evaluation of existing aging management programs
  - Acceptable method to manage aging effects, plant-specific alternatives may be proposed
- **Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants (SRP-SLR) (NUREG-2192)**
  - Provides guidance to NRC staff reviewers to perform safety reviews of SLR applications

# Overview of Changes

- Standard language for Corrective Actions, Confirmation Process, and Administrative Controls elements for each AMP
- Added detailed Final Safety Analysis Report Supplement summary descriptions in GALL-SLR Report and SRP-SLR
- Expanded AMP XI.E3 to three new AMPs to address aspects related to potentially submerged cables
- New GALL-SLR AMPs:
  - XI.E7: High Voltage Insulators
- New further evaluation/plant specific sections and aging management review items

# SLR Schedule

<b>Timeframe</b>	<b>Description</b>
February 29, 2016	Public comment period ends
March 9, 2016	Regulatory Information Conference Sessions
March 11, 2016	Quarterly Meeting with industry
April 2016	Draft GALL Supplement publication
May 2016	Public comment period ends for draft GALL Supplement
March 2017	ACRS Full-Committee Meeting
Mid-2017	Issuance of final SLR GALL Report, SRP and Technical Basis NUREGs
2019	First SLR Application

# Public Comments on Draft Guidance Documents

- Draft GALL-SLR Report (NUREG-2191):
  - Volume I: ADAMS Accession No. ML15352A074
  - Volume II: ADAMS Accession No. ML15352A084
- Draft SRP-SLR (NUREG-2192):
  - ADAMS Accession No. ML15352A086
- NRC Webpage link:  
<http://www.nrc.gov/reactors/operating/licensing/renewal/slr/guidance.html>
- Submit written comments to [www.regulations.gov](http://www.regulations.gov), using Docket ID **NRC-2015-0251**
- Mail comments to: Cindy Bladey, Office of Administration, Mail Stop: OWFN-12-H08, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001
- Comments accepted through February 29, 2016

# Questions?



# **Subsequent License Renewal (SLR) Draft Generic Aging Lessons Learned (GALL) Report and Standard Review Plan (SRP) Structural Changes**

Office of Nuclear Reactor Regulation  
Division of License Renewal

**February 19, 2016**

# **GALL Chapter XI.S1: American Society of Mechanical Engineers (ASME) Section XI, Subsection IWE**

- Reworded portions related to bolting to improve clarity and consistency across structural Aging Management Programs (AMPs) (Element 2).
- Identified bulges in shells and liners as areas of potential distress or corrosion and recommended evaluation for structural impact and corrosion potential. Noted that when possible, quantitative acceptance criteria should be developed for bulges (Elements 3, 4 & 6).
  - A one-time evaluation to demonstrate acceptability and develop acceptance criteria would appropriately address this recommendation. Staff will consider revisions to make this clear.

# GALL Chapter XI.S1: ASME

## Section XI, Subsection IWE

- Clarified that supplemental surface examinations should be performed for (1) steel bellows subjected to cyclic loads if there are no current licensing basis fatigue analyses, and (2) stainless steel and dissimilar metal welds of penetration sleeves, penetration bellows, and vent line bellows (Element 4).
- Added supplemental volumetric examinations in areas that are inaccessible from one side and susceptible to corrosion. The sample size, locations, and frequency are to be determined on a plant-specific basis each interval (Element 4).

# **GALL Chapter XI.S1: ASME**

## **Section XI, Subsection IWE**

- Added relevant operating experience references, including documents discussing two-ply containment bellows cracking for which leak rate testing was inadequate and instances of through-wall liner plate corrosion (Element 10).

# GALL Chapter XI.S2: ASME

## Section XI, Subsection IWL

- Emphasized importance of documenting and trending inspection results, including quantitative measurements when appropriate. Noted that photography *may* be a useful technique for documenting and trending aging (Element 5).
- Added quantitative acceptance criteria consistent with Chapter 5 of American Concrete Institute 349.3R “Evaluation of Existing Nuclear Safety-Related Concrete Structures” in addition to the acceptance standard in ASME Code, Section XI, Subsection IWL-3000 (Element 6).

# **GALL Chapter XI.S2: ASME Section XI, Subsection IWL**

- Added relevant references (e.g., Information Notice 2010-14 concerning the containment surface condition examination frequency and acceptance criteria). Also added recent prestressed concrete containment delamination as lessons learned to be considered during any significant containment modifications during the subsequent period of extended operation (Element 10).

# **GALL Chapter XI.S3: ASME Section XI, Subsection IWF**

- Added evaluation of inaccessible support areas when accessible areas indicate degradation may exist in inaccessible areas (Element 1).
- Reworded portions related to bolting to improve clarity and consistency across structural AMPs (Element 2).
- Noted that all bolting within the IWF sample should be monitored for corrosion, loss of bolting integrity (Element 3).

# GALL Chapter XI.S3: ASME

## Section XI, Subsection IWF

- Clarified that high-strength bolting greater than 1 inch diameter, including ASTM A325 and A490, *should be monitored for stress corrosion cracking (SCC)*. This is IWF specific guidance based on operating experience with these bolts in IWF applications, and is different from the recommendations of the other structural AMPs (Elements 3 & 4).
- Increased the sample size for Class 1, 2, and 3 piping supports, by 5% with supports outside of the existing IWF sample. This provides reasonable assurance that age-related degradation is not occurring outside the existing IWF sample population (Element 4).

# **GALL Chapter XI.S3: ASME Section XI, Subsection IWF**

- Added a recommendation to increase or modify the IWF sample population if a support within the population is repaired to as-new condition without exceeding the IWF-3400 acceptance requirements for increase in scope. This ensures the sample remains representative of the population (Element 5).

# Non-ASME Structural AMPs: Common Changes

- Clarified that coatings are monitored for indications of the condition of the underlying material (XI.S6 & XI.S7 - Elements 1 & 3).
- Reworded portions related to bolting to improve clarity and consistency across structural AMPs (XI.S6 & XI.S7 - Elements 1, 2 & 3).
  - Clarified that high-strength bolting greater than 1 inch diameter should be monitored for SCC, *except* for ASTM A325 and A490 bolts in civil structure applications.

# Non-ASME Structural AMPs: Common Changes

- Added focused inspections of inaccessible concrete areas exposed to aggressive groundwater/water (XI.S6 & XI.S7 – Element 4).
- Noted that trending is expected and quantitative measurements should be recorded when possible (XI.S5, XI.S6, and XI.S7 – Element 5).
  - Noted that photography **may** be a useful technique for documenting and trending aging.

# Non-ASME Structural AMPs: Common Changes

- Clarified that technically justified quantitative acceptance criteria should be used whenever applicable (XI.S6 and XI.S7 – Elements 5 & 6).
- Noted that baseline inspections should be performed with appropriate quantitative acceptance criteria prior to the SLR period (XI.S6 and XI.S7 – Elements 5 & 6).
  - Technically justified, quantitative acceptance criteria are necessary for effective trending and adequate aging management. If applicants have not used quantitative acceptance criteria, a ‘baseline’ inspection should be completed prior to the SLR period.

# GALL Chapter XI.S5: Masonry Walls

- Added an inspection frequency of every 3 years for unreinforced and unbraced walls (Element 4).
  - These walls are more susceptible to cracking and crack propagation. As their service life increases more frequent inspections are necessary to ensure cumulative effects of possible degradation are properly addressed.
- Clarified the expectation of a technical justification/engineering evaluation to accept a degraded condition without repair or corrective actions (Element 6).

# GALL Chapter XI.S6: Structures Monitoring

- Noted that elastomeric materials are subject to tactile inspection (Element 4).
- Added monitoring of through-concrete leakage for its volume and chemistry and emphasized that through-concrete leakage should be addressed with corrective actions beyond ‘engineering judgement’ (Elements 3 & 4).
- Clarified that the evaluation of groundwater chemistry should occur with a frequency that can identify seasonal variations (Element 4).

# GALL Chapter XI.S7: Inspection of Water-Control Structures

- Deleted Regulatory Guide (RG) 1.127 from the title and clarified that the AMP is independent of RG 1.127. The RG is still referenced in the AMP for additional guidance (Title & Program Description).
- Clarified that submerged concrete is not considered inaccessible and should be inspected every 5 years, or a technical justification should be provided for a longer interval (Element 4).

# SRP Chapter 3.5: Containments, Structures and Component Supports – Aggregate Reactivity

- Revised the Further Evaluation for Aggregate Reactivity
  - A plant-specific AMP is necessary if reactivity tests or petrographic examinations of concrete samples identify reaction with aggregates, or visual inspections of accessible concrete have identified indications of aggregate reactions, such as “map” or “patterned” cracking or the presence of reaction byproducts (e.g., alkali-silica gel).
  - Deleted references to ASTM and ACI standards.
- Aligned SRP-SLR Table 3.5-1 entries (ID 12, 43, and 50) and GALL-SLR items II.A1.CP-67, III.A1.TP-204, III.A6.TP-220 with the revised language.

# SRP Chapter 3.5: Containments, Structures and Component Supports – Irradiation

- Added a Further Evaluation for Irradiation.
- A plant-specific AMP or analysis is necessary if estimated irradiation dose (fluence) received by the concrete from neutron and/or gamma radiation exceeds threshold limits:
  - $10^{19}$  neutrons/cm<sup>2</sup> neutron radiation ( $E > 0.1$  MeV)
  - $10^8$  Gy gamma dose.
- Added SRP-SLR Table 3.5-1 entry (ID 97) and associated GALL-SLR item (III.A4.T-35).
  - Addresses reduction of strength and loss of mechanical properties of Group 4 concrete.

# Questions

# SRP Chapter 4.5: Concrete Containment Unbonded Tendon Prestress Analysis

- Reworded title to include “Unbonded”
- Clarified:
  - “Review Procedures” and “Acceptance Criteria” to 10 CFR 54.21(c)(1)(ii) of time-limited aging analysis (TLAA). Consistent with regulations, reevaluation of unbonded tendon prestressed forces is performed, to ensure prestressed concrete containment design remains valid. Deleted from “Review” and “Acceptance” Sections, tendon management/retensioning program to be an acceptable substitute when tendon prestress force trend lines fall below design values.

# SRP Chapter 4.5: Concrete Containment Unbonded Tendon Prestress Analysis

- Added:
  - TLAA reviews for predicted power limit (PLL) lines and for bonded tendons are performed under SRP Chapter 4.7, “Other Plant-Specific Time Limited Aging Analyses” (Areas of Review).
  - Supplementary “aging effects” (e.g., breakage of tendon wires, effects of SCC, improper anchorages, tendon relaxation when replacing existing inservice tendons with new) to elevated temperatures for loss of tendon prestress (Areas of Review).
  - TLAA Final Safety Analysis Report supplement for 10 CFR 54.21(c)(1)(ii).

# GALL Chapter X.S1: Concrete Containment Unbonded Tendon Prestress

- Reworded title to include “*Unbonded.*”
- Clarified:
  - Focus of program, assess adequacy of measured tendon prestress forces for the sampled group (i.e., hoop, vertical, dome, inverted-U, helical) of unbonded tendons (Program Description).
  - The specifics on how to evaluate loss of tendon prestress (i.e., measure, analyze, trend sampled tendons) (Element 4).

# GALL Chapter X.S1: Concrete Containment Unbonded Tendon Prestress

- Added:
  - This is a condition monitoring program. Corrective actions are taken before tendon forces fall below design values (Element 2).
  - PLL, the minimum required value (MRV), and tendon (lift-off) force trend lines for each tendon group are projected to the end of the SLR period (Element 5).
  - Emphasized the importance of PLL line for each trended group of tendons. If the tendon force trend line crosses the PLL line, the cause is determined, documented, evaluated, and corrected (Element 6).

# GALL Chapter XI.S4: 10 CFR Part 50, Appendix J

- Clarified (Program Description):
  - Role of the AMP. Emphasized, all containment pressure boundary components are managed for age-related degradation.
- Added:
  - Pressure boundary components excluded from 10 CFR Part 50 Appendix J testing need to be identified along with AMPs credited for managing the aging effects (Element 1).
  - Administrative leakage rate limits for valves and penetration may be set lower than the regulatory acceptance criteria for early detection of age-related degradation (Element 4).

# SRP Chapter 4.6: Metal Containment, Liner Plate, Penetrations Fatigue

- Clarified:
  - Fatigue parameters (fatigue analyses, fatigue waivers) for metal containments, metal liners, penetrations (mechanical, electrical) are reviewed. Review also includes personnel airlock, equipment hatch, and control rod drive (CRD) hatch (Areas of Review).
- Added:
  - Type and number of occurrences for cyclic loads for fatigue parameter evaluations, are stated (Areas of Review).
  - Electric Power Research Institute reference (TR-1003456) on aging management of mechanical and electrical penetrations (Areas of Review).

# SRP Chapter 4.6: Metal Containment, Liner Plate, Penetrations Fatigue

- Added:
  - ASME BPV Code Section III fatigue waiver evaluations for liners, to 10 CFR 54.21(c)(1)(i) or (ii) review.
  - Acceptable programs to 10 CFR 54.21(c)(1)(iii) for monitoring and tracking the number of cycles and occurrences and severity of relevant transients are identified (Acceptance Criteria, Review Procedures).
  - Metal liner/metal plates, personnel airlock, equipment hatch, CRD hatch are included as areas of review to SRP-SLR “3.5.2.2.1.5 Cumulative Fatigue Damage,” Table 3.5-1, item 3.5.1-9 and GALL-SLR items II.A3.C-13, II.B4.C-13.

# Questions



# **Subsequent License Renewal (SLR) Draft Generic Aging Lessons Learned (GALL) Report and Standard Review Plan (SRP) Electrical Changes**

Office of Nuclear Reactor Regulation  
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# **GALL-SLR Chapter X.E1: Environmental Qualification (EQ) of Electric Components & SRP-SLR Chapter 4.4: EQ of Electric Equipment**

- Added discussion on the SLR extension of a component's environmental qualification (qualified life):
  - Environment monitoring clarification
  - Added adverse localized environment inspection/walk down based on plant; specific operating experience, corrective actions, procedures and visual inspections
  - Added 10 CFR 50.49 discussion on the application and maintenance of margin:
    - Clarification added to EQ reanalysis on the maintenance of adequate EQ margins, conservatisms and uncertainties
  - On-going EQ (Condition Monitoring)

# **GALL-SLR Chapter XI.E1: Electrical Insulation for Electrical Cables and Connections (Non-EQ)**

- Added guidance on the identification and verification of adverse localized environments based on plant-specific operating experience, procedures, environmental monitoring and previous walkdowns
- Removed fuse holder insulation and transferred to GALL-SLR Report Aging Management Program (AMP) XI.E5
- Added testing on a sampling basis on the accessible cables in addition to visual

# **GALL-SLR Chapter XI.E2: Electrical Insulation for Electrical Cables and Connections (Non-EQ) Requirements Used in Instrumentation Circuits**

- Added guidance on the identification and verification of adverse localized environments that are used as one of the bases of the requirements of the AMP

# **GALL-SLR Chapter XI.E3 A, B, C – Electrical Insulation for Inaccessible (Medium Voltage, Instrument and Control, and Low Voltage) Power Cables (Non-EQ) Requirements**

- XI.E3 was expanded with three new AMPs to address aspects of industry and NRC guidance related to potentially submerged cables:
  - XI.E3A: Medium Voltage Power Cables
  - XI.E3B: Instrument and Control Cables
  - XI.E3C: Low Voltage Power Cables (both alternate and direct current)
- Provides inaccessible cable inspection and test method as applicable to each AMP cable type (adds in-situ or laboratory electrical, physical, or chemical testing)

# **GALL-SLR Chapter XI.E3 A, B, C – Electrical Insulation for Inaccessible (Medium Voltage, Instrument and Control, and Low Voltage) Power Cables (Non-EQ) Requirements**

- Limited test criterion statement (testing that is proven and shown to be applicable to the cable type, voltage, insulation and construction)
- Separated event driven from periodic inspections (clarification)
- Included submarine or other cables designed for continuous submerged service (one-time test)

# **GALL-SLR Chapter XI.E4: Metal-Enclosed Bus**

- Scope expanded to mention cable bus in the program description as a plant-specific further evaluation item
- Added guidance on the detection of aging effects (removed sampling)
- Clarified inaccessible metal-enclosed bus features and provides guidance on their treatment and evaluation

# GALL-SLR Chapter XI.E5: Fuse Holders

- Electrical insulation portions of the fuse holders were removed from GALL-SLR Report AMP XI.E1 and transferred to this AMP

# **GALL-SLR Chapter XI.E6: Electrical Cable Connections (Non-EQ) Qualification Requirements**

- Replaced the one-time inspection with periodic inspection (once every 10 years or once every 5 years for visual inspection)

# GALL-SLR Chapter XI.E7: High Voltage Insulators

- New AMP provides reasonable assurance that the intended functions of high voltage insulators in scope and credited for recovery of offsite power are adequately age managed
- Transferred from “further evaluation” based on operating experience:
  - Loss of safety function
  - Corrosion
  - Coating failure
- Designed to periodically (twice a year) visually inspect high voltage insulators susceptible to adverse environments (insulator and conductor connector aging effects including support degradation and surface contamination caused by salt, dust, fog, cooling tower plume, industrial effluent)

# GALL-SLR Chapter VI: Electrical Components & SRP-SLR Chapter 3.6 Electrical and Instrumentation Controls

- Same as GALL-SLR AMPs discussed in previous slides:
  - Added additional guidance for the identification and verification of adverse localized environments (Non-EQ)
  - Expanded electrical cable condition monitoring
  - Added aging management review line items:
    - To address cable bus and high voltage insulators
    - For consistency with changes to corresponding AMPs
    - Added cable bus as a new further evaluation plant-specific item

# Questions



# **Subsequent License Renewal Draft Generic Aging Lessons Learned Report and Standard Review Plan Technical Basis**

Office of Nuclear Reactor Regulation  
Division of License Renewal

**February 19, 2016**

# Technical Basis Guidance Document

Table II.2.2.3 Changes to AMR Items for Chapter VII - Auxiliary Systems									
GALL-SLR Item No.	Rev. 2 AMR Link	Structures and/or Components	Material	Environment	Aging Effect/ Mechanism	Aging Management Program	Further Evaluation Required	Technical Basis for Changes	Comment No.
VII.I.A-406		Underground piping, piping components	HDPE	Air – indoor uncontrolled, condensation, air-outdoor (external)	Cracking, blistering, change in color due to water absorption	Chapter XI.M41, "Buried and Underground Piping and Tanks"	No	GALL-SLR Report line item VII.I.A-406 was revised to include the air-outdoor environment. Underground components are those that are located below grade, but are contained within a tunnel or vault such that they are in contact with air and are located where access for inspection is limited. In some instances, the air in a tunnel or vault could be considered to be air-outdoor in lieu of air – indoor uncontrolled or condensation. The staff has concluded that the periodic visual inspections of underground components recommended by AMP XI.M41 are sufficient to detect loss of material for these material and environment combinations.	

# Technical Basis Option #1:

**Table II.2.2.3 Changes to AMR Items for Chapter VII – Auxiliary Systems**

<b>GALL-SLR Item No.</b>	<b>Technical Basis for Changes</b>	<b>Comment No.</b>
VII.I.A-406	<p>GALL-SLR Report line item VII.I.A-406 was revised to include the air-outdoor environment. Underground components are those that are located below grade, but are contained within a tunnel or vault such that they are in contact with air and are located where access for inspection is limited. In some instances, the air in a tunnel or vault could be considered to be air-outdoor in lieu of air – indoor uncontrolled or condensation. The staff has concluded that the periodic visual inspections of underground components recommended by AMP XI.M41 are sufficient to detect loss of material for these material and environment combinations.</p>	

# Technical Basis: Option #2

**Table II.2.2.3 Changes to AMR Items for Chapter VII – Auxiliary Systems**

<b>GALL-SLR Item No.</b>	<b>Aging Effect Mechanism/ Component</b>	<b>Technical Basis for Changes</b>	<b>Comment No.</b>
VII.I.A-406	Cracking, blistering, change in color due to water absorption for HDPE underground piping, piping components, exposed to air – indoor uncontrolled, condensation, or air – outdoor (external)	GALL SLR Report line item VII.I.A-406 was revised to include the air outdoor environment. Underground components are those that are located below grade, but are contained within a tunnel or vault such that they are in contact with air and are located where access for inspection is limited. In some instances, the air in a tunnel or vault could be considered to be air outdoor in lieu of air – indoor uncontrolled or condensation. The staff has concluded that the periodic visual inspections of underground components recommended by AMP XI.M41 are sufficient to detect loss of material for these material and environment combinations.	

# Questions



**Subsequent License Renewal (SLR)  
Draft Generic Aging Lessons Learned (GALL)  
Report and Standard Review Plan (SRP)  
Managing Aging for Pressurized Water  
Reactors (PWR) Vessel Internals**

Office of Nuclear Reactor Regulation  
Division of License Renewal

**February 19, 2016**

# Agenda

- Reasonable Assurance
- Issue
- Guidance in draft GALL-SLR Report, SRP-SLR
- Industry Proposal
- Initial Assessment of Industry's Proposal
- Summary

# Reasonable Assurance

- **Applicant must demonstrate:**
  - Effects of aging adequately managed
  - Intended function(s) maintained consistent with the current licensing basis (CLB)
- **Accomplished through:**
  - Integrated plant assessment (10 CFR 54.21)
  - Identification of components and aging effects requiring management (aging management review (AMR) line items)
  - Identification of AMP to manage aging effects
- **NRC staff must determine reasonable assurance that the plant can be operated within its CLB:**
  - Actions identified, and have been or will be taken to manage effects of aging on functionality of structures and components

# Issue

- GALL Report, Rev. 2, Aging Management Program (AMP) XI.M16A references Materials Reliability Program (MRP)-227-A
- MRP-227-A:
  - Basis for aging management of PWR vessel internals using a 60-year analysis
  - Identifies components and aging effects requiring management for 60 years
  - Not updated to an 80-year analysis until 2020
- MRP-227-A does not completely identify aging management needs for 60-80 years

# Draft SLR Guidance Documents

- Deleted AMP XI.M16A from GALL-SLR Report
  - Unacceptable to use as a generic AMP without an update of an inspection basis from industry that would cover the 60-80 year period
- Deleted detailed AMR items and replaced with items to address all reactor vessel internal (RVI) components for specific aging effects
- Added a new AMR further evaluation section to SRP-SLR to request a plant-specific AMP for PWR vessel internals

## Provide Reactor Vessel Internal AMR Lines

- MRP-227 is the industry program for managing aging of PWR reactor vessel internals
- GALL-SLR AMR lines should be provided consistent with MRP-227 Rev 1 primary, expansion and existing inspection categories.
- GALL-SLR AMR could be updated consistent with the Staff safety evaluation for MRP-227 Rev 2 for SLR when it is available.
- Further Evaluations for Reactor Vessel Internals capture SLR period aging evaluations and would apply.

# Industry Proposal

- Retain modified AMP XI.M16A that references the current program as the basis for managing aging from 60-80 years
- Retain aging AMR items for PWR vessel internals in License Renewal Interim Staff guidance (LR-ISG)-2011-04 (or MRP-227 Rev. 1)
- Allow AMP to be treated as a living program that will be periodically updated
- Allow commitment for submittal to NRC of program after update of MRP-227 to 80 years

# Assessing Industry's Proposal

- Industry proposes to allow commitment to submit program after MRP-227 is updated to 80 years
  - NRC staff recognizes commitments were accepted during first renewals
- A commitment to submit an updated program leaves the technical issue open
  - Does not provide reasonable assurance

# Assessing Industry's Proposal

- Proposal to provide modified AMP XI.M16A that references current program as the basis for 60-80 years is insufficient
  - Latest approved version of MRP-227-A does not provide a basis for 60-80 years
- Proposal to retain AMR items for PWR vessel internals in LR-ISG-2011-04 may be possible if:
  - AMR items change further evaluations entries from “No” to “Yes”
  - PWR vessel internals not currently listed are added as needed

# Assessing Industry's Proposal

- Proposal to treat AMP as a living, periodically updated program is insufficient
- For reasonable assurance determination:
  - Gap analysis
  - Identify impacts on inspection categorization
  - Justify analytical methodology
- SRP-SLR further evaluation will provide guidance

# Summary

- For SLR, NRC needs reasonable assurance that:
  - Components and aging effect combinations that need to be age managed through 80 years have been identified
  - An aging management program is in place that will be effective for 80 years
- NRC staff is prepared to discuss aging management options for PWR RVI components at this meeting and future public meetings
- Please submit comments via the Rulemaking Web Site: <http://www.regulations.gov> and search for Docket ID NRC-2015-0251

# Questions