

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

## **Electrical Aging Management Programs (AMPs)**

**Office of Nuclear Reactor Regulation  
Division of License Renewal**

**June 16, 2016**

# Agenda

Opening Remarks

Comments on Electrical and Structural Sections

- Discussion will mostly focus on comments that were partially accepted or not accepted
- The final disposition of all comments received on the draft SLR guidance documents by February 29, 2016, will be documented in a technical basis NUREG

# Agenda

<b>Time</b>	<b>Topic</b>
08:30AM – 08:35AM	Opening Remarks
08:35AM – 09:35AM	<ul style="list-style-type: none"><li>• Industry to present on Alternatives to Draft GALL-SLR Report aging management programs (AMPs) XI.E3B, Electrical Insulation for Inaccessible Instrument and Control Cables not subject to 10 CFR 50.49 EQ Requirements, and XI.E3C, Electrical Insulation for Inaccessible Low Voltage Power Cables not subject to 10 CFR 50.49 EQ Requirements</li></ul>
09:35AM – 09:45AM	<ul style="list-style-type: none"><li>• Feedback from Public</li></ul>
09:45AM – 09:50AM	<ul style="list-style-type: none"><li>• Review Action Items for Electrical Sections</li></ul>
09:50AM – 10:00AM	Break
10:00AM – 11:30AM	<ul style="list-style-type: none"><li>• Staff Responses to Industry Comments on Structural Sections (Attachment 6)</li></ul>
11:30AM – 11:40AM	<ul style="list-style-type: none"><li>• Feedback from Public</li></ul>
11:40AM – 11:50AM	<ul style="list-style-type: none"><li>• Review Action Items for Structural Sections</li></ul>
11:50AM – 12:00PM	Closeout and adjourn



# **Electrical Sections**

**Office of Nuclear Reactor Regulation  
Division of License Renewal**

# NEI Proposed Changes to Electrical AMPs



XI.E3B, “Electrical Insulation For Inaccessible Instrument And Control Cables Not Subject To 10 CFR 50.49 Environmental Qualification Requirements”

XI.E3C, “Electrical Insulation or Inaccessible Low Voltage power Cables Not Subject To 10CFR 50.49 Environmental Qualification Requirements”

# One-Time Tests

## Industry Comment

- Industry proposes to eliminate/modify one-time test performed on a sampling basis
- Cables with known susceptibility to significant moisture continue to be tested
- Cables identified as submerged through visual inspection are evaluated (may trigger testing or additional visual inspections)

## Staff Response

- Current AMP (incorporating public comments) adequately addresses industry comment
- Staff discussion of current updates to AMPs XI.E3B and XI.E3C addressing comment

## Technical Basis

- Justification for relaxing one-time test

# Summary of Staff Review

## Scope of Program

1. Revised Scope of Program; eliminated “one-time test”
2. Added “with the applicable cable electrical insulation”

## Preventive Actions

1. Added “in manholes/vaults”
2. Deleted “wetted or”
3. Revised to state: “If water is found during inspection (i.e., cable exposed to significant moisture), corrective actions are taken to keep the cable dry and to assess cable degradation (i.e., through inspection and/or additional cable testing)...” added “and/or”
  - Sentence is deleted in current version of XI.E3B/C

# Summary of Staff Review

## Parameters Monitored or Inspected

1. Revised to state: “Visual inspection for water accumulation in manholes/vaults is performed based on plant-specific operating experience with water accumulation over time.”
  
2. Paragraph revised to eliminate “one time test on a sampling basis.”
  - Revised testing based on evaluation (visual inspection) of cables exposed to significant moisture
  - Required testing for cable insulation material known to degrade under continuous submergence
  - Added specific type test are “proven techniques capable of detecting reduced insulation resistance of the cable insulation system due to wetting or submergence”



# Summary of Staff Review

## Detection of Aging Effects

1. Revised element to a one-time required test for cable exposed to significant moisture to be performed prior to the period of extended operation
2. Added/revised specific test type wording
3. Revised test sampling – removed provision for sample test method justification and documentation
4. Included several editorial comments

## Monitoring and Trending

Clarifies visual and test results (trendable and repeatable)

# Summary of Staff Review

## Acceptance Criteria

No comments noted

## Corrective Actions

Revised Generic AMP wording (Part 50 Appendix B)

## Confirmation Process

No Comments Noted

## Administrative Controls

No Comments Noted

## Operating Experience

Comments previously incorporated or no longer required

# QUESTIONS

**BREAK**