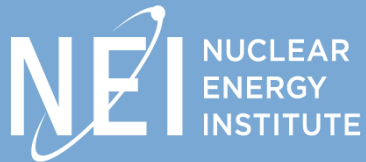


SLR-ISG Set #1 Industry Review Comments

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Agenda:

ISG Set #1 Industry Review Comments

- XI.E7 High Voltage Insulators
- XI.E3A/3B/3C Inaccessible Cables
- XI.S8 Protective Coating Monitoring & Maintenance
- XI.M2 Water Chemistry
- XI.M26 Fire Protection (AMRs)
- Missing AMRs
- XI.M42 Internal Coatings

XI.E7 Voltage Classification

- Text inserted to expand scope to include Medium Voltage does not conform to standard usage for power system classes.
- Replace “power systems operating at voltages above 4 kV” with “nominal system voltages greater than 1 kV and equal to or less than 765 kV)”

XI.E7 New Aging Effect/Mechanism of Wind Driven Particles

- New Aging Effect/Mechanism of “wind driven particles impacting surfaces”
 - created without technical reference
 - inconsistently assigned to metallic or insulating surfaces, and across insulator types (polymer, porcelain, or toughened glass)
- Provide the technical justification for “wind driven particles impacting surfaces” or eliminate from the ISG.
- Clarify which insulator types and which material types the new Aging Effect/Mechanism applies to.

XI.E3A/3B/3C Inaccessible Cables

- Recommend deleting the additions of “potentially” before “exposed to significant moisture” within the Scope Elements (1) of AMPs XI.E3A and XI.E3B. “Potentially” was not added in AMP XI.E3C.
- “Potentially exposed” is not the same as “exposed” and is inconsistent with the exception noted in the PBAPS SER (ML# 19317E013).
- Based on operating experience cables elevated on supports might be “potentially” exposed but not actually “exposed”. This would result in unnecessary preventive and/or corrective actions. That is, cables exposed to significant moisture are tested to determine the age degradation of the electrical insulation.
- Automated water level monitoring will prevent water accumulation and cable submersion.

XI.S8 In-Vessel Debris Limits

- September 2019, Staff Review Guidance for In-Vessel Downstream Effects Supporting Review of Generic Letter 2004-02 Responses (ML19228A011), indicates that in-vessel particulate debris limits are not necessary. Only in-vessel fiber limits are required.
- Consistent with Generic Letter 2004-02 responses, qualified, unqualified, and damaged coatings (particulates) are one part of the total debris inventory. Debris inventory also includes insulation (fiber) and other debris.
- Coatings are treated as particulates; therefore, there are no in-vessel debris limits required.
- Recommend deleting Element 5 text inserted at the end of first paragraph to ensure in-vessel debris limits are not exceeded. Also delete other references to “in-vessel” debris margin in Element 5 and other portions of the AMP XI.S8.

XI.M2 EPRI Primary Water Chemistry Guidelines

- The correct EPRI document number for EPRI “PWR Primary Water Chemistry Guidelines” Rev 7, April 2017 is EPRI 30020005505.
- Correction noted in NUREG-2221 Table 2-29 XI.M2 (pg 2-280)
- Update the 2014 EPRI document issue date noted in the ISG to reflect April 2017
- Update the following ISG Appendix B sections:
 - Program Description (page 1)
 - References (page 4)
 - 3.1.6. References (page 8)

XI.M26 Fire Protection AMR Changes

- AMP XI.M26 manages cracking and loss of materials for cementitious, subliming and silicate fire barrier materials— See PBAPS SER (ML# 19317E013), Section 3.3.2.3.5
- Delete Aging Effect for Change in Material Properties
- Cementitious coatings Aging Effects consistent with NUREG-2191 AMP XI.M42 element 3
- Loss of material and cracking is managed for cementitious materials. See the term “Cracking due to chemical reaction, weathering, settlement, or corrosion of reinforcement (reinforced concrete only); loss of material due to delamination, exfoliation, spalling, popout, scaling, or cavitation,” in the GALL-SLR Report Chapter IX.F.
- Protection program based upon the intended function of enclosing or acting as a barrier for the material to be protected.
- Based on the intended function, delamination or separation are aging mechanisms that potentially result in a loss of material.

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AMRs: Missing AMRs

The following AMRs discussed with Industry during prior ISG meetings are missing from the Draft Mechanical ISG:

- Loss of coating integrity in compressed air steel tanks
- LOM in compressed air steel tanks
- LOM/etc. in Zn in condensation environment
- LOM/etc. in carbon steel, SS, and copper alloy in treated water
- Use of XI.M20 or XI.M38 for AMR items VII.C1.A-400 & VII.C3.A-400

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XI.M42 Coating OE for Fire Water Systems

- OE exclusion noted in item (c) of the last paragraph of AMP XI.M42 element 4 sets an unreasonable standard that is not consistent with plant CLB and License Renewal guidance.
- Delete OE exclusion does not allow opportunistic inspections of internally coated fire water system piping if plant-specific OE is unacceptable (i.e. no leaks due to aging)
- As noted in Plant CLB fire water system leakage is allowed and monitored, fire water system is normally maintained at required operating pressure by the jockey pump and is monitored such that loss of system pressure is detected and corrective actions initiated.
- NUREG-2192 Appendix A indicates past failures would not necessarily invalidate an AMP because the feedback from OE should result in appropriate corrective action and/or program enhancements. Corrective actions, including causal evaluations, root cause determination, and prevention of recurrence, should be timely. Preventive actions should prevent recurrence.
- Also delete OE discussion in the Reason for Revision Section. It implies that OE associated with different materials, environments and aging effects could be used to demonstrate OE is unacceptable.

Are there any comments that
require discussion?