

Initial Industry Feedback to the Proposed Changes to Electrical Portions of License Renewal Guidance to Account for Subsequent License Renewal

We appreciate the opportunity to understand the current thinking of the NRC Electrical SLR Expert Panel and proposed changes to the electrical AMPs for the SLR GALL.

We have three generic comments:

- Avoid creating SLR aging management activities already covered by Maintenance Rule (more details in E5 AMP feedback).
- Avoid creating pre-planned corrective actions built into the AMPs; the concern is that it may “lock” the plant into inappropriate corrective actions for the adverse conditions found by the AMP activities (more details in E1 feedback).
- Provide clarification on how the attributes of the current Operating Experience Program (ISG LR-2011-05) guidance applies to the SLR GALL:

The Standard Review Plan discussion regarding the Operating Experience Program was modified by ISG LR-2011-05. The Operating Experience Program is expected to capture operating experience from plant specific and industry sources and systematically review it on an ongoing basis. Specifically, all revisions to NUREG-1801, “Generic Aging Lessons Learned (GALL) Report,” are considered to be a source of operating experience and are evaluated accordingly. In addition, NRC and industry guidance documents and standards applicable to aging management are also considered as sources of operating experience. It has been emphasized during our discussions that the SLR GALL AMP changes are for the 60 to 80 year period only. The SLR GALL AMP changes should be exempt from the required evaluation and consideration for present day AMP activities.

Specific Electrical AMP Comments

- Changes to E1:
 - Performing conditioning monitoring activities (testing) could be interpreted as having pre-determined corrective actions built into the AMP. This it may lead into inappropriate corrective actions for the adverse conditions found by the AMP activities.
 - “Two or more tests” statement may be troublesome (unshielded low voltage cables only typically have the IR test available).
 - Additional burden to address past Adverse Localized Environments (ALEs) that have been subsequently corrected may be difficult and not justified based on the benefit obtained. How much effort is enough for reasonable assurance?
- E2 AMP proposed ALE identification changes seem appropriate; it is similar to the E1 AMP spaces approach option. We agree with this change.
- Changes to E3 AMP:
 - The industry prefers that E3 be organized into three separate AMPs.

- What is the compelling industry-wide operating experience that warrants having an explicit AMP for submerged I&C cables? EPRI Report 1021629 "Aging Management Program Development Guidance for Instrument and Control Cable Systems for Nuclear Power Plants" provides some specific discussion regarding known I&C cable material susceptible to water degradation (page 4-6).
- In the Duane Arnold situation, the root cause was cable jacket damage during initial installation (cable pulled through conduit, conduit subsequently filled with water). They added I&C cables to their E3 program in response to a plant-specific issue on at least a 10 year frequency sample basis, but not because of a generic industry issue.
- "Two or more tests" statement may be troublesome because unshielded low voltage cables only typically only have IR test available.

- E4 AMP changes seem appropriate. The addition of the cable duct configuration and encouraging the continued use of thermography is appropriate.

- Changes to E5:
 - The scope of the program to include active equipment is encroaching into the scope normally covered by the Maintenance Rule.
 - IGALL (International GALL) electrical AMPs do not account for Maintenance Rule activities as required in U.S. plants. It would be inappropriate to include IGALL items without a clear determination of applicability and scope.
 - Is the desire to include fuse holders in E5 because the Maintenance Rule is not working for fuse holders in active components?

- Changes to E6 concerns:
 - Industry operating experience does not indicate that the connections AMP needs to be a periodic program.

- We agree that the addition of a High Voltage Insulator AMP to SLR GALL is appropriate.

- EQ AMP and TLAA changes
 - We agree that these changes seem appropriate, but the challenge will be on the rigor of the environmental monitoring program (historical data and justification of the cumulative thermal and radiation damage the cable has seen during its service life).
 - The proposed 10-year visual inspection component seems appropriate (similar to E1 spaces approach).