Industry Comments on GALL-SLR Supplement Mechanical Topics

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NRC One White Flint North

X.M1 Fatigue Monitoring

Industry Comment (Tracked as #16-008)

Need to confirm understanding of Staff TLAA position for flaw tolerance evaluations:

- Staff position: For time-dependent flaw evaluations used to set ISI intervals, the time between inspections has no relationship to the time associated with the number of cycles assumed in the analysis.
- Doesn't the flaw evaluation assume a cycle rate based on the analysis that would then influence the inspection interval?
- Another way to look at it is actual operational cycles during the inspection interval may not conform to the assumptions used in the analysis.

X.M1 Fatigue Monitoring

Industry Comment (Tracked as #16-009)

Scope of Program, second paragraph: States: "This sample set includes the locations identified in NUREG/CR-6260 and additional plant-specific locations in the RCPB if they may be more limiting than those considered in NUREG/CR-6260."

Recommend removing the reference to NUREG/CR-6260:

- NUREG/CR-6260 was an initial screening investigation tool performed more than 20 years ago by the NRC and INEL staff that suited the needs for close out of the NRC's Fatigue Action Plan.
- NUREG/CR-6260, and especially the companion risk study documented in NUREG/CR-6674, were only evaluated for 60 years; there is no analysis to support their application to SLR.
- Program description and element 1 both recognize that plant-specific locations in the RCPB may be more limiting than those considered in NUREG/CR-6260 and thus should also be considered.
- Guidance should point to the need for a plant specific screening to assess EAF for the limiting locations in the Class 1 RCPB independent of NUREG/CR-6260.
- There is no need to include both NUREG/CR-6260 locations and plant specific locations in the fatigue monitoring program – plant specific bounding locations would be sufficient.

X.M1 Fatigue Monitoring

Industry Comment (Tracked as #16-010)

The intent of comment #16-010 was to provide the applicant with an allowance to demonstrate by evaluation that a particular transient has no significant impact on fatigue parameters and thus does not need to be monitored.

- Any transient that could potentially challenge a fatigue parameter limit should be tracked, regardless of its contribution to fatigue (NRC High CUF example).
- There is no need to track transients that will not challenge the fatigue parameter limit, which implies both a low fatigue parameter contribution and an insignificant impact on fatigue parameter limit margin.
- Comment #16-010 was not meant to overrule the requirements to monitor transients listed in technical specifications.

X.M1 Fatigue Monitoring

Industry Comment (Tracked as #16-010) - Continued

- Some transients may not contribute to fatigue (transients belonging to fatigue pairs below the endurance limit), but still should be monitored due to the technical specification requirements.
- Recommend revising the first sentence of GALL-SLR, XI.M1 Element 3 as follows:
  The program monitors all applicable plant transients that cause cyclic strains and ~~contribute to fatigue~~ could potentially cause fatigue parameter limits to be exceeded, as specified in the fatigue analysis, and monitors or validates appropriate environmental parameters that contribute to Fen values.

Are there questions that require technical discussion?