Attachment

NEI LICENSE RENEWAL TASK FORCE
MECHANICAL WORKING GROUP

Industry Feedback to changes proposed
for mechanical portions of NRC guidance for Second License Renewal

We appreciate the opportunity to understand the current thinking of the NRC Mechanical SLR Expert Panel and the proposed changes to the mechanical AMPs for SLR GALL and LR-SRP.

Specific Comments on Mechanical AMPs and Further Evaluation Sections

1. X.M1, Cyclic Load Monitoring
   COMMENT: Stress-based fatigue monitoring (SBFM) provides better monitoring of the severity of a transient and better computation of the resulting fatigue usage, and has been accepted for use by the NRC staff. Industry plans to provide input and recommendations on incorporating SBFM into this AMP during the public comment period.

2. X.M2, Neutron Fluence Monitoring
   COMMENT: To show continued compliance with RG 1.190, dosimetry data from capsules or ex-vessel dosimeters is generally used. However, dosimetry data located above and below the core for PWRs is not generally available at this time. In addition, regulatory standards to define an acceptable degree of agreement between the dosimetry data and the calculated fluence do not exist for non-beltline fluence calculations. Industry plans to provide input and recommendations to address this topic during the public comment period.

   COMMENT: During the public comment period, industry plans to provide input and recommendations to describe the monitoring of components determined to be "bounding" with respect to compliance with RG 1.190 through the use of fluence estimation methods, rather than requiring monitoring of all components.

3. XI.M9 BWR Vessel Internals
   COMMENT: This program refers to "Supplemental inspections based on evaluations." During the public comment period, industry plans to provide input and recommendations for the fluence threshold to be used in screening BWR internal components for the applicability of potential aging effects.

4. XI.M11B, Cracking of Nickel Alloys
   COMMENT: A baseline volumetric exam of all susceptible material nickel alloy bottom-mounted instrument nozzles may not be possible due to geometry/accessibility of the components. Industry visual examinations have been proven capable of detecting relevant

indications before the effects of aging progress to the point of causing a loss of intended function. Industry recommends deleting this exam from the guidance, and plans to provide further input on this topic during the public comment period.

COMMENT: Please include consideration of the PWSCC temperature threshold when recommending baseline volumetric examinations for branch line connections and CRDM housings that typically operate below the 550F threshold temperature. Industry plans to provide further input on this topic during the public comment period.

5. XI.M16, PWR Vessel Internals
   COMMENT: We agree with the proposal to address EMDA, Volume 4, research topics as Further Evaluation topics with the use of a Plant Specific AMP when necessary. This approach provides flexibility for a plant-specific evaluation and incorporation of applicable information from research and operating experience.

6. XI.M31, Reactor Vessel Material Surveillance
   COMMENT: If a capsule has been examined in the prior sixty years of operation that achieves a capsule fluence between one and two times the maximum ID fluence projected for the RPV through eighty years of licensed operation, then withdrawal and testing of additional surveillance capsules during the second license renewal period should not be required. Industry plans to provide further input on this topic during the public comment period.

   COMMENT: ASTM E-185-82 may require revision for 80 years of operation. Industry plans to provide further input on this topic during the public comment period.

   COMMENT: Additional clarification is needed on the "extended beltline region" with corresponding neutron fluence threshold (e.g., 1E+17 neutrons/cm^2) and the possible impact on the Integrated Surveillance Program (ISP) for BWRs, since the reactor recirculation system inlet and outlet nozzles to RPV welds could become limiting for RT_{ndt} during the 60 – 80 year period of extended operation. Industry plans to provide further input on this topic during the public comment period.

7. XI.M32 One-Time Inspection
   COMMENT: Based on continued improvements and operating experience associated with industry programs for Water Chemistry, Fuel Oil, and Oil Analysis, industry recommends using 50% of the sample population that was used for the one-time inspection at Year 40, as long as samples for the same material, environment, and potential aging effects were acceptable. This would be a 10% or 13 components maximum sample size. Industry plans to provide further input on this topic during the public comment period.

8. XI.M41 Buried and Underground Piping and Tanks
   COMMENT: The NRC slide suggested a new aging mechanism "loss of material due to wear for polymeric materials." Please provide the technical basis for adding this new aging mechanism for stationary polymer piping in soil, or delete the discussion of this postulated mechanism.

   COMMENT: The NRC slide suggested a new aging effect of "Change in material properties for cementitious materials." Industry recommends deletion of this aging effect, since change in material properties for cementitious materials is rare, except in the event of a chemical attack which would result in visual changes. Industry plans to provide further input on this topic during the public comment period.

9. Further Evaluation: PVC Exposed to Outdoor Air
   COMMENT: Industry recommendations for acceptance criteria for inspections related to the management of reduction in impact strength will be provided during the public comment period. The current criteria have been questioned during some NRC regional IP 71003 inspections.

10. Further Evaluation: Underground Stainless Steel Components Exposed to Raw Water
    COMMENT: Industry recommends that this evaluation for stainless steel components in vaults and other chambers should be revised to specify that it applies for situations where components are in prolonged contact with leakage (i.e., greater than 50% of the time) that the components have been in service. Industry plans to provide further input on this topic during the public comment period.