

Oconee SLRA: Breakout Questions

SLRA Section B2.1.28, "ASME XI, Subsection IWE" AMP

TRP: 041

Question Number	SLRA Section	SLRA Page	Background / Issue (As applicable/needed)	Discussion Question / Request
1	3.5.2.2.1.3, item 1	3-1308	<p>SRP-SLR Section 3.5.3.2.1.3 guidance says a plant-specific program is not recommended if, among other considerations, (1) the moisture barrier, at the junction where the shell or liner becomes embedded, is subject to aging management activities in accordance with ASME Code Section XI, Subsection IWE requirements; (2) the borated water spills and water ponding on the concrete floor when detected are cleaned up or diverted to a sump in a timely manner.</p> <p>FE Section does not provide information for the moisture barrier, at the junction where the shell or liner becomes embedded, and the borated water spills and water ponding on the concrete floor.</p>	<p>1. Discuss how the moisture barrier degradation, at the junction where the shell or liner becomes embedded, is managed.</p> <p>2. Discuss how OE (the borated water spills and water ponding on the concrete floor) is addressed.</p> <p>3. Discuss plans to update the SLRA to address the above.</p>
2	3.5.2.2.1.6 B2.1.28 A2.28	3-1310 B-198 A-30	<p>FE Section states stainless steel high energy pipes that penetrate the containment are connected to carbon steel penetration sleeves with dissimilar metal welds.</p> <p>FE Section also states that the IWE AMP and Appendix J AMP manage the aging effects of these dissimilar metal welds (DMWs). However, SLRA Section B2.1.28 states that Appendix J AMP</p>	<p>1. Discuss how the IWE AMP and Appendix J AMP examination/testing methods will be sufficient to manage dissimilar metal welds without additional appropriate examinations capable of detecting cracking due to SCC. Clarify if all the dissimilar metal welds are subjected to Type B local leak rate tests</p>

			<p>manages the aging of these dissimilar metal welds, which is inconsistent with FE.</p> <p>SRP-SLR Section 3.5.3.2.1.6 guidance states that IWE and leak rate testing may not be sufficient to detect cracks [due to SCC or fatigue], especially for dissimilar metal welds.</p> <p>SLRA Section A2.28 states: “The program includes surface or enhanced examinations to detect cracking for specific pressure-retaining components. Containment liners and penetrations were analyzed for cyclic fatigue and do not require surface examinations in addition to visual examinations to detect cracking in stainless steel and dissimilar metal welds of penetration sleeves and components that are subject to cyclic loading.” The above statements appear to imply that the surface or enhanced examinations would apply to components DMWs for SCC since analysis for fatigue loading does not preclude cracking due to SCC. But SLRA B2.1.28 AMP and the FE do not appear to include the surface or enhanced examinations and identify the specific pressure-retaining components on which these examinations will be performed, as stated in A2.28.</p>	<p>that are capable of detecting cracking due to SCC.</p> <p>2. Clarify the discrepancy between FE Section and SLRA Section B2.1.28, and revise SLRA as necessary.</p> <p>3. Clarify the discrepancy between SLRA A2.28 and the descriptions in B2.1.28 and FE 3.5.2.2.1.6, and identify the specific pressure-retaining components that will be subject to surface or enhanced examinations to detect cracking. Discuss how this will be incorporated into the B2.1.28 AMP and FE 3.5.2.2.1.6 or applicable SLRA sections.</p>
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3	<p>Table 3.5.1</p> <p>3.5.2.2.1.6</p> <p>UFSAR Figure 3-20</p> <p>Table 3.5.2-23</p>	<p>3-1328</p> <p>3-1310</p> <p>P595 of 2264</p> <p>3-1455</p>	<p>Item 3.5.1-010 claims to be not applicable. FE Section 3.5.2.2.1.6 states that ONS containment does not have stainless steel penetration sleeves, penetration bellows, vent line bellows, or suppression chamber shell (interior surface) as part of the containment pressure boundary. However, UFSAR Figure 3-20 shows the sleeve for electrical penetrations and SLRA Table 3.5.2-23 lists a component for penetration sleeve.</p> <p>Also, item 3.5.1-010, with corresponding AMR item II.A3.CP-38, also apply to dissimilar metal welds which do exist at ONS. However, the non-applicability claim for SLRA Table 3.5.1, item 3.5.1-010 appears to be not sufficiently justified or even made in FE Section 3.5.2.2.1.6. Further the discussion for item 3.5.1-010 also claims the item is not used.</p>	<p>1. Clarify what is the material used for the electrical penetration sleeves in UFSAR Figure 3-20.</p> <p>2. Clarify the discrepancy between FE Section, item 3.5.1-010, SLRA Table 3.5.2-23 and UFSAR Figure 3-20. Revise SLRA as necessary.</p> <p>3. Justify the non-applicability claim in SLRA Table 3.5.1, for item 3.5.1-010 in FE Section 3.5.2.2.1.6. Further, clarify ONS understanding of the distinction between an AMR item being “not applicable” and “not used.”</p>
4	B2.1.28	B-198	<p>SLRA states that procedures will include preventive actions to ensure bolting integrity for replacement and maintenance activities by specifying proper selection of bolting material and lubricants, and appropriate installation torque or tension to prevent or minimize loss of bolting preload and cracking of high strength bolting. However, it does not appear that AMP enhancement 1 includes an enhancement for those preventive actions to ensure bolting integrity.</p>	<p>Clarify what enhancements for preventive actions are needed to ensure bolting integrity.</p>

5	Table 3.5.1, item -027 3.5.2.2.1.5	3-1331 3-1310	<p><u>Note: This question is also presented in TRP 146.</u></p> <p><u>Accounting AMR of containment pressure-retaining boundary components that have no CLB fatigue analysis with regard to managing cracking due to cyclic loading (AMR item 3.5.1-027):</u></p> <p>SLRA Table 3.5.1, in the Discussion column for item 3.5.1-027 states: "Not applicable. Cracking due to cyclic loading of the Containment liner and penetrations is a time-limited aging analysis (TLAA), as defined in 10 CFR 54.3. The evaluation of this TLAA is addressed in Section 4.6. The associated NUREG-2191 aging items are not used."</p> <p>SLRA Section 3.5.2.2.2.1.5 states that TLAAs for fatigue of the <i>containment liner plate and main feedwater and main steam penetrations</i> are addressed in SLRA Section 4.6. SLRA Section 3.5.2.2.2.1.5 does not address fatigue or fatigue waiver analyses of any other containment pressure-retaining boundary components other than those above, nor provides any further evaluation associated with SRP-SLR item 3.5.1-027 for containment pressure-retaining boundary components that do not have a CLB fatigue analysis.</p>	<p>1. List the containment-pressure-retaining boundary components covered by SRP-SLR Table 3.5-1, item 027 (e.g., personnel airlock, equipment hatch, electrical penetration, penetration sleeves, penetration bellows, etc.) that are subject to cyclic loading but do not have a CLB fatigue analyses.</p> <p>2. Clarify if fatigue TLAAs exist for all containment penetrations as implied.</p> <p>3. Justify the non-applicability claim of SLRA Table 3.5.1, item 3.5.1-027, for each of these components.</p> <p>OR</p> <p>Explain how cracking due to cyclic loading (cumulative fatigue damage) will be adequately managed for these components pursuant to 10 CFR 54.21(a)(3), and how do you plan to address them in the SLRA.</p>
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6	N/A	N/A	GALL-SLR report (XI.S1) describes parameters monitored or inspected,	Explain how the IWE AMP manages aging effects of the

			<p>detection of aging effects, and acceptance criteria for the steel, SS, and dissimilar metal weld pressure-retaining components that are subject to cyclic loading but have no CLB fatigue analysis.</p> <p>It appears that IWE AMP Evaluation report (SLR-ONS-AMPR-XI.S1, Rev. 2) does not cover this subject, and SLRA claims AMR item 3.5.1-027 to be not applicable.</p>	<p>cracking for the steel, SS, and dissimilar metal weld pressure-retaining components that are subject to cyclic loading but have no CLB fatigue analysis.</p>
7	N/A	N/A	<p>Both GALL-SLR report (XI.S1) and ASME code IWE-2420 state that the sequence of component examinations established during the first inspection interval shall be repeated during successive intervals, to extent practical.</p> <p>However, Section 4.5 in the IWE AMP Evaluation report (SLR-ONS-AMPR-XI.S1, Rev. 2) uses the sequence of component examinations established during the third inspection interval, which appears to be an exception to NUREG-2191.</p>	<p>1. Clarify whether using the third inspection interval is an exception.</p> <p>2. Explain why use of the sequence from the third inspection interval is acceptable.</p>
8	<p>B2.1.28</p> <p>A2.28</p> <p>Table A6.0-1</p>	<p>B-198</p> <p>A-30</p> <p>A-94</p>	<p>Program enhancement 3 (SLR Commitment 28.3) related to supplemental volumetric examination states, in part: "...The supplemental volumetric examinations for each unit will occur within two refueling outages after identifying the trigger for the examination."</p>	<p>1. Clarify whether each unit will be subject to the volumetric examination if the triggering OE occurs in any one unit, or will the examination only be conducted in the unit in which the triggering OE occurred, or some other treatment? If not</p>

			<p>From the sentence cited above, with regard to the conduct of the supplemental volumetric examination, there is a lack of clarity of the treatment of the 3 ONS units if the triggering OE occurs in one of the units. Also, it is not clear from the SLRA whether the triggering OE has occurred to date since the issuance of the first renewed license.</p>	<p>the former case, explain and provide a justification of the intended treatment of the 3 units for the one-time supplemental volumetric examination if the triggering OE occurs in any one unit.</p> <p>2. Provide affirmation whether or not the triggering OE has occurred in any unit to date since the issuance of the initial renewed license.</p>
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