

St. Lucie SLRA: Breakout Questions
SLRA Section 3.5.2.2.4, Corrosion Structural
TRP: 077

Note: Breakout Questions are provided to the applicant and will be incorporated into the publicly-available audit report.

Technical Reviewer	Zuhan Xi	12/09/2021
Technical Branch Chief	Joseph Colaccino	12/10/2021
Breakout Session	<i>Date/Time</i>	<i>To be filled in by PM</i>

Applicant Staff	NRC staff
<i>To be filled out by PM during breakout</i>	

Question Number	SLRA Section	SLRA Page	Background / Issue (As applicable/needed)	Discussion Question / Request	Outcome of Discussion
1	Table 3.5-1	3.5-70	<p>10 CFR 54.4(a)(2) requires that the applicant consider all nonsafety-related SSCs whose failure could prevent satisfactory accomplishment of any of the functions identified in 10 CFR 54.4(a)(1)(i), 10 CFR 54.4(a)(1)(ii), or 10 CFR 54.4(a)(1)(iii) to be within the scope of SLR.</p> <p>SLRA AMR Item 3.5.1-100 says that the External Surfaces Monitoring of Mechanical Components AMP is credited with managing loss of material and cracking of aluminum and stainless steel nonsafety-related supports at the Intake Structures. However, the following</p>	<ol style="list-style-type: none"> 1. Provide associated Table 2 line items for aluminum and stainless steel nonsafety-related supports with appropriate AMP(s). 2. Clarify if aluminum material should be included in the materials of construction for the intake structure components. 3. Update the SLRA as necessary. 	

			<p>appears to be inconsistent with the above statement:</p> <ol style="list-style-type: none"> 1. No associated table 2 items credit the External Surfaces Monitoring of Mechanical Components AMP. 2. Aluminum material is not on the material list of SLRA Section 3.5.2.1.9, Intake Structures. 3. External Surfaces Monitoring of Mechanical Components (B.2.3.23) is not on the AMP list of SLRA Section 3.5.2.1.9, Intake Structures. (SLRA Section 3.5.2.1.9 lists the Inspection of Water-Control Structures Associated with Nuclear Power Plants (B.2.3.34) and the Structures Monitoring (B.2.3.33) as AMPs to manage the Intake Structures.) 		
2	Table 3.5-1	3.5-69	<p>SLRA AMR Item 3.5.1-099 claims that PSL does not have any aluminum or stainless steel Class 1, 2, or 3 supports, and identified 3.5.1-099 as "not used" item (i.e., the component, material, and aging effect combination are addressed by a different Table 1 AMR item.) However, it seems that "not applicable" (i.e., the component, material, and environment combination does not exist at the plant as described in the SRP-SLR item) is more applicable because Item 3.5.1-099 is used for ASME code supports, while Item 3.5.1-100 is used for Non-ASME code supports.</p>	<ol style="list-style-type: none"> 1. Explain why "not used" is used instead of "not applicable" for Items 3.5.1-099. 2. If "not used" is justifiable, then determine an alternative Table 1 AMR item for 3.5.1-099. 3. Update the SLRA as necessary. 	
3	Table 3.5.2-1, Table	3.5-81, 3.5-	<p>Several Table 2 line items associate with AMR item 3.5.1-100 identify "<u>pressure boundary</u>" as one of the intended</p>	<p>Clarify if "pressure boundary" is an intended function for each of the components</p>	

	3.5.2-7, and Table 3.5.2-17	82, 3.5- 105, 3.5- 106, 3.5- 144, and 3.5- 145	<p>functions. These line items credit the Structures Monitoring AMP or Fire Protection AMP to manage aging effect.</p> <p>As discussed in NUREG-2221, the staff finds the use of visual inspection for the AMR line items as acceptable when performing periodic inspections to manage the aging effects for <u>structural supports</u>, and when it can easily be demonstrated that, for these type of structural supports, minor loss of material or cracking that might not be visually detectable during a walkdown inspection will likely not impact the intended function of the support.</p> <p>It is not clear whether regular visual inspections through the Structural Monitoring program or Fire Protection Program are sufficient to detect small cracks from SCC (usually too small to be seen) to retain the pressure boundary intended function associated with the components.</p>	<p>associated with the line items. If so, justify how regular visual inspections are adequate to detect small cracks from SCC so that the pressure boundary intended function will be maintained for the subsequent period of extended operation.</p>	
4	3.5.2.2.2.4	3.5-33	<p>FE Section 3.5.2.2.2.4 states that stainless steel/aluminum cracking due to SCC and loss of material due to pitting and crevice corrosion is managed by PSL Structures Monitoring AMP. However, in the selected Table 1 AMR item 3.5.1-100, in addition to Structures Monitoring AMP, the External Surfaces Monitoring of Mechanical Components AMP and the Fire Protection AMP are also cited to manage the aging effect.</p>	<p>Clarify the inconsistency between this FE section and its associated Table 1 AMR item. Update the SLRA as necessary.</p>	

