Oconee Nuclear Station, Units 1, 2, and 3, Subsequent License Renewal Application (SLRA)
TRP 026: Fire Protection

#	SLRA Section	SLRA Page	Question / Issue	Why are we asking?
1	2.3, 3.3	2-163, 3-778	GALL-SLR Item VII.G.A-789, SRP Item 3.3-1, 255 identifies the aging effects for fire damper assemblies as loss of material due to general, pitting, crevice corrosion; cracking due to SCC; hardening, loss of strength, shrinkage due to elastomer degradation. The term "fire damper assembly" includes both the frame and the damper as evidenced by the aging effects requiring management as cited in GALL-SLR Item VII.G.A-789, SRP Item 3.3-1, 255. For example, hardening and loss of strength would not be applicable aging effects if the intent of the GALL-SLR were to only manage aging effects associated with housings, which are typically constructed of steel materials. SLRA Table 2.3.3.5-3 refers to damper housing and SLRA Table 3.3.2-29 cites GALL-SLR Item VII.G.A-789, SRP Item 3.3-1, 255 for managing loss of material for the galvanized steel, steel, and stainless steel damper housing by the Fire Protection program. The NRC staff notes that "damper assemblies" is used in SLRA section B2.1.15. Please state the material of construction for the fire damper assemblies other than the	The NRC staff is seeking clarification on the materials of construction of the fire damper assemblies and the applicable aging affects for the fire damper assemblies.

			housing that perform their intended isolation function in the closed position and the basis for why the aging effects cited in GALL-SLR Item VII.G.A-789, SRP Item 3.3-1, 255 are not applicable to portions of the fire damper assembly other than the housing.	
2	3.5	3-504, 3-1453	SLR-ISG-2021-02-Mechanical, "Updated Aging Management Criteria for Mechanical Portions of Subsequent License Renewal Guidance" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20181A434) added AMR Items VII.G.A-805, VII.G.A-806, and VII.G.A-807 to Table VII.G in NUREG-2191, "Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report," and Table 3.3-1 in NUREG-2192, "Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants." The aging effects for cementitious coatings, silicates, and subliming compounds used as fireproofing/fire barriers exposed to air are loss of material, change in material properties, cracking/delamination, and separation. SLRA Table 3.3.1 states that AMR items 3.3.1-267 and 3.3.1-268 are not used and are addressed under AMR item 3.3.1-269. SLRA Table 3.5.2-23 cites AMR item 3.3.1-269 for fire barriers – penetration seals (cerafiber bulk, cerafiber blanket, cerafoam, pyrocrete, mineral wool, 3M Putty). AMR	The NRC staff is seeking clarification on the AMR item used for fire barriers – penetration seals.

			item 3.3.1-269 is for silicates used as fireproofing/fire barriers. 3M Putty would be considered a subliming compound which is the specific fireproofing/fire barrier material for AMR item 3.3.1-267. In addition, Pyrocrete would be considered a cementitious coating which is the specific fireproofing/fire barrier material for AMR item 3.3.1-268. Please discuss the basis for using the silicates AMR item for cementitious coatings and subliming compounds.	
3	3.3	3-1454	AMR item 3.3.1-060 is cited for grout fire barriers – penetration seals. However, this AMR item is for reinforced concrete structural fire barriers: walls, ceilings and floors. Industry standard note A is cited which is "Consistent with NUREG-2191 item for component, material, environment, and aging effect. AMP is consistent with NUREG-2191 AMP." Please discuss the use of industry standard note A.	The NRC staff is seeking clarification on the use of industry standard note A for grout fire barriers – penetration seals.
4	B2.1.15	B-120	Section 4.5 in Revision 1 of SLR-ONS-AMPR-XI.M26 states, "Inspections that do not meet acceptance criteria are referred to the Corrective Action Program. Under the Corrective Action Program, the results of the inspections of the aging effects of cracking and loss of material on fire barrier penetration seals, fire barriers, fire damper assemblies, and fire doors are subject to trending, as appropriate, to provide for timely	The purpose of this question is to ensure consistency with "monitoring and trending" and "corrective actions" program elements of AMP XI.M26 in GALL-SLR.

			detection of aging effects so that the appropriate corrective actions can be taken." Following review of SLRA Section B2.1.15 and Revision 1 of SLR-ONS-AMPR-XI.M26, it is unclear to the NRC staff if trending of inspection results is performed outside of the corrective action program for instances where results are not entered into the corrective action program. The "corrective actions" program element of AMP XI.M25 in GALL-SLR states, "If any projected inspection results will not meet acceptance criteria prior to the next scheduled inspection, inspection frequencies are adjusted as determined by the site's corrective action program." However, neither SLRA Section B2.1.15 nor Revision 1 of SLR-ONS-AMPR-XI.M26 discuss adjusting inspection frequencies based on projected inspection results not meeting acceptance criteria. Please clarify whether inspection results not entered into the corrective action program are trended, and whether inspection frequencies are adjusted based on project inspection results not meeting acceptance criteria.	
5	3.5	3-1354	SLRA Table 2.4.1-1 and SLRA Table 3.5.2-1 cite a fire barrier intended function for the following components: • Concrete Elements (Accessible) • Concrete Elements (Inaccessible) • Concrete Hatches	The NRC staff is seeking clarification on programs other than the Fire Protection program managing aging effects associated with the fire barrier intended function.

			• Metal Siding (Steel) SLRA Table 2.4.2-1 and SLRA Table 3.5.2-2 cite a fire barrier intended function for concrete cylinder walls. SLRA Table 2.4.3-1 and SLRA Table 3.5.2-3 cite a fire barrier intended function for accessible and inaccessible concrete elements. However, the Fire Protection program is not credited to manage the aging affects for any of these components. It is unclear to the NRC staff whether the programs credited to manage the applicable aging effects are capable of ensuring the fire barrier intended function is maintained during the subsequent period of extended operation. Specifically, it is unclear whether the inspections and acceptance criteria for the credited programs are equivalent to those in the Fire Protection program; the credit programs perform inspections on the same frequency as required by the Fire Protection program; and the credited programs procedures have been updated, if necessary, to ensure the fire barrier intended function is maintained during the subsequent period of extended operation.	
6	2.4, 3.5	2-340, 3-1451	In several sections (2.4.1, 2.4.3, 2.4.7.4, 2.4.7.5, 2.4.7.6, and 2.4.7.7) of the SLRA it states, in part, "… fire barriers (fire seals, fire stops, fire wraps, coatings) are addressed as bulk commodities in Section 2.4.8."	The NRC staff is seeking clarification on fire stops, fire wraps, and coatings.

			However, SLRA Section 2.4.8, including Table 2.4.8-2, and SLRA Table 3.5.2-23 include only “Fire Barriers – Penetration Seals” and “Seismic Gap Filler Material” as the components with a fire barrier function. Please discuss where fire stops, fire wraps, and coatings are identified and addressed, and the AMR items for managing applicable aging effects.	
7			Section 7.1 of MP/3/A/1705/018, “Fire Protection – Penetration – Fire And Flood Barrier – Inspection And Minor Repair,” states that penetrations/barriers may be located in elevated radiation areas and other similar penetrations where both sides area accessible can be inspected. In addition, this section states that the Cerafiber cloth/blanket in the RPS/ES cabinets cannot be inspected due to the configuration. Are there requirements on when a direct visual inspection must be performed for these instances?	The NRC staff is seeking clarification on requirements when fire barriers may be inaccessible.
8			Enclosure 9.2 of MP/3/A/1705/018 states that Fiber Board or Fiber Blanket are held in place with secure methods such as threaded thru-rods, stainless tie wire, etc. Section 6.1 of EPRI 3002013084, “Long-Term Operations: Subsequent License Renewal Aging Effects for Structures and Structural Components (Structural Tools),” November 2018, states, in part, “wire and other appurtenances used to secure fire	The NRC staff is seeking clarification on materials used for securing fire wraps.

			wrap to the item being protected – is considered to be part of the fire wrap itself. Please identify the materials used for securing fire wraps and where they are addressed, including AMR items for managing applicable aging effects.	