Schroeder, Daniel

From: Burritt, Arthur RI
Sent: Thursday, April 29, 2010 10:50 AM
To: Cline, Leonard; Schroeder, Daniel; Balian, Harry
Subject: FW: Salem Unit 2 Containment Liner Corrosion

FYI

Outside of Scope

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Outside of Scope

From: Lupold, Timothy NRC
To: Evans, Michele; Rosenberg, Stacey
Cc: Taylor, Robert; Yoder, Matthew
Sent: Fri Apr 16 15:41:22 2010
Subject: Salem Update

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1) Update - Salem Unit 1 Outage – AFW (headers 12 and 14) buried piping Issues

Based on UT results from the shallow section of the Unit 1 buried AFW piping for headers 12 and 14 (headers 11 and 13 are not buried), the licensee currently plans to replace a combined total of approximately 50 feet of piping on the shallow buried portion of these two headers (depth of approx 4 ft). The licensee is using a contractor to perform a finite element analysis to confirm the structural integrity of the rest of the shallow piping. These results will then be used to finalize the licensee's determination of past operability for the shallow piping and to identify the need for additional corrective actions related to any extent of condition on the operating unit, Unit 2.

To this point the licensee has confirmed reasonable assurance of operability for the Unit 2 AFW system based on historical information and photographs from 1994 that provided indication of intact pipe coating and the fact that Unit 2 is about 2 years younger than Unit 1. The licensee currently believes that the shallow section of piping on Unit 1 was not coated "as specified" - by the design.

The operability evaluation for the shallow section of piping that will be based on the finite element analysis is expected to be completed early the week of 4/19.

On the deep section of piping for headers 12 and 14, the licensee has excavated a small portion of the down comer that leads to the deeper piping. They performed ultrasonic testing (UT) around the elbow at the top of this down comer (depth of approx 4 ft), which was completely submerged in groundwater. The minimum wall thickness measured in this area was ~0.226 inches, which was greater than the minimum required wall thickness of 0.200 inches. In addition the licensee performed a guided wave pipe inspection on a portion of the straight run of the deep section of piping (approximately 20 ft in length at a depth of approx. 17 ft). The results indicated less wall thinning on this section of piping than the guided wave results indicated for the shallow section of piping. The licensee also confirmed by visual observation that the deep section of AFW piping was coated in accordance with the design specification.

Based on the results of the UT around the elbow and the results of the guided wave in the 20 ft section of deep piping, the licensee plans no further excavation of the deep section of piping. The licensee's current plans are to recoat all of the piping exposed during excavation that will not be replaced, in both the shallow and deep sections, and then following the completion of pipe replacements for the significantly degraded exposed pipe sections, hydro the entire line, both the shallow and deep sections. The licensee will use these hydro results to support operability of the deep section of piping for the next operating cycle.

To facilitate completion of the operability determinations for both the shallow and deep section of piping, the licensee will also be reducing the design pressure of the AFW piping from a very conservative 1900 psig down to a more realistic 1275 psig through a plant modification package.

Region-1 has an ISI inspector onsite as part of normal baseline inspection activities and he is reviewing the licensee's analysis. Additional resources from headquarters are assisting as needed. (Continue to follow, forward to TRG Lead for Auxiliary Feedwater (Stan Gardocki); Buried Piping POC (Bob Hardies); assigned to Bob Bernardo).