Conte, Richard

From: OHara, Timothy
Sent: Tuesday, May 18, 2010 5:51 PM
To: Conte, Richard; Burritt, Arthur; Gray, Harold; Schroeder, Daniel
Subject: FW: OP EVAL 10-005 Salem U2 Buried AFW Pipe.doc
Attachments: OP EVAL 10-005 Salem U2 Buried AFW Pipe.doc

Gentlemen,

The most interesting point in the evaluation is that they decided that IWA-4160 doesn't apply and they did not do a "verification of acceptability evaluation". See comment #7 below.

Here are my comments to the final Op Eval #10-005:

(1) Section 1.7, 2nd paragraph: PSEG please verify that ASME, IWA-5244 will be used for the pressure tests in the future.

(2) The SIA past operability FEA did **not** analyze the portion of the piping which was buried within the fuel transfer tube (FTTA) area. The FEA only analyzes the buried piping between the FTTA wall and the Outer Penetration Area (OPA). PSEG assumes that the buried portion in the FTTA is represented by approximately 100 UT measurements taken near the 96' 2" elevation. Most of the AFW piping in the FTTA has **not been** inspected but it is in the same environment as the piping which actually coroded. Thus approximately 50% of the buried piping has been analyzed with only very weak inspection data.

(3) PSEG says that the coating in the area between the FTTA and the OPA was degraded and/or not applied. However, PSEG does not say what the condition of the coating on the buried, uninspected piping in the FTTA is. This uninspected, buried piping is approximately 50% of the total buried piping. PSEG has verbally said that they relied upon Guided Wave data for this buried, uninspected piping, however, the Guided Wave technology is not valid with the buried pipe geometry.

(4) 1994 inspection of Unit 2 piping and coating: (a) Op Eval #10-005 says "Details of the extent of coating degradation was not captured in the report (SCI-94-0877)", (b) SCI-94-0877 says that the author only observed 1 of the 3 excavated areas, the other 2 had been filled in when the inspection was done. (c) PSEG has not been able to show what coating was applied to Unit 2 AFW piping, how long it was designed to last, and when it was supposed to be inspected. (d) the UT readings taken in 1994 do show wall thickness readings which vary by 0.048" on one area and by 0.035" in the second area. PSEG does not explain why these values vary. There could be corrosion occurring which has not been examined in the past 16 years. (e) There are no QA or QC records showing how the limited excavation areas (approximately 40') were restored with what coating in 1994.

(5) The Unit 2 Analysis on page 6 of 18 seems to disregard the system design pressure of 1950 psi without explaining why it's acceptable to do so.

(6) The Coating Life Span on page 6 of 18 is not based upon any actual original construction documentation, and very little actual inspection evidence.

(7) The last paragraph of Summary of Aggregate Impact on Salem Unit 2 Auxiliary Feedwater System says that PSEG did NOT perform an IWA-4160 "verification of acceptability" evaluation. So, if the NRC was correct that PSEG should be following IWA-4160, IWA-4170 and IWA-4180, they are now in non-compliance with the ASME Code! We probably should discuss the implications of this tomorrow.

Tim OHara

C1156

From: Schroeder, Daniel
Sent: Tuesday, May 18, 2010 4:07 PM
To: OHara, Timothy
Cc: Burritt, Arthur
Subject: FW: OP EVAL 10-005 Salem U2 Buried AFW Pipe.doc

Hot off the press!

From: Schroeder, Daniel L. [mailto:Daniel.Schroeder@pseg.com]
Sent: Tuesday, May 18, 2010 4:04 PM
To: Schroeder, Daniel
Subject: FW: OP EVAL 10-005 Salem U2 Buried AFW Pipe.doc

From: Down, Robert E.
Sent: Tuesday, May 18, 2010 3:45 PM
To: Schroeder, Daniel L.
Subject: OP EVAL 10-005 Salem U2 Buried AFW Pipe.doc

Dan, see attached for OP EVAL for Unit 2 AFW buried piping. Text has been uploaded to SAP and is awaiting SRO and shift manager approval.

Bob Down, x1868