SeabrookNPEm Resource

From: Plasse, Richard
Sent: Friday, March 11, 2011 11:00 AM
To: Cliche, Richard
Subject: FW: Draft Structural AMP Follow-up RAIs - Seabrook 2-24-11.doc
Attachments: Structural AMP Follow-up RAIs - Seabrook 2-24-11.doc

Draft Structural Follow-up RAIs

Hearing Identifier: Seabrook_License_Renewal_NonPublic
Email Number: 2220

Mail Envelope Properties (Richard.Plasse@nrc.gov20110311105900)

Subject: FW: Draft Structural AMP Follow-up RAIs - Seabrook 2-24-11.doc
Sent Date: 3/11/2011 10:59:51 AM
Received Date: 3/11/2011 10:59:00 AM
From: Plasse, Richard

Created By: Richard.Plasse@nrc.gov

Recipients:
"Cliche, Richard" <Richard.Cliche@fpl.com>
Tracking Status: None

Post Office:

Files	**Size**	**Date & Time**
MESSAGE	33	3/11/2011 10:59:00 AM
Structural AMP Follow-up RAIs - Seabrook 2-24-11.doc	39026	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

Seabrook AMP, "ASME Section XI, Subsection IWE."

Follow-up RAI B2.1.27-1

Background

By letter dated December 17, 2010, the applicant responded to the staff RAI B.2.1.27-1 and stated that Seabrook will perform testing of the containment liner plate for loss of material on the concrete side of the liner. The testing will be conducted in accordance with approved ASME Section XI, Subsection IWE methodology, and will be completed prior to the period of extended operation.

Issue

The applicant has committed to performing testing of the containment liner plate for the loss of material on the side of the concrete; however, it is not clear how this testing will be performed.

Request

Provide details regarding the testing to be performed to determine the loss of material on the concrete side of the liner plate. Include a description of the nondestructive testing methods and locations where thickness measurements will be obtained, and explain why the measurement locations will provide an adequate representation of liner plate locations that may be degraded.

Follow-up RAI B2.1.27-2

Background

By letter dated December 17, 2010, the applicant responded to the staff RAI B.2.1.27-2 and stated that the liner plate around the fuel transfer tube has been identified in the ISI program for augmented inspection in accordance with the 1995 Edition with 1996 Addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, Section XI, Subsection IWE -2420(b) and (c).

Issue

The ASME 1995 Edition with 1996 Addenda, Section XI, Subsection IWE -2420(b) and (c) states that reexamination of degraded areas is no longer required if these areas remains essentially unchanged for three consecutive inspection periods. However, it is not clear from the applicant's response if the containment liner plate around the fuel transfer tube is still exposed to the borated water leakage. Continued exposure to borated water can promote corrosion of the liner plate and adversely affect the ability of the liner to perform its intended function.

Request

Provide a long-term plan for monitoring the liner plate thickness around the fuel transfer tube until borated water leakage is stopped. The staff needs this information to ensure that continued exposure of the liner plate to the borated water will not adversely affect the ability of the liner plate to perform its intended function during the period of extended operation.

Seabrook AMP, "Structures Monitoring Program"

Follow-up RAI B2.1.31-1
Background

By letter dated December 17, 2010, the applicant responded to a staff RAI regarding concrete degradation due to groundwater in-leakage and explained that recent cores had shown significant reductions in concrete compressive strength and modulus of elasticity. The applicant stated that a prompt operability determination concluded the affected areas were in compliance with the design code and that an extent of condition investigation was ongoing. The applicant further stated that any necessary future remediation will be identified and conducted through the corrective action program.

Issue

The response lacked information regarding the extent of condition assessment including approximate completion dates and probable path forward.

Request

Provide additional information regarding the extent of the condition investigation, including the following:

1. Any additional tests planned or results of investigations conducted since the initial RAI response was submitted.
2. An estimated timeframe for the extent of condition investigation.

3. A proposed path forward, including the location and timing of future tests as well as proposed remedial actions based on available information.
4. How the investigation / path forward will ensure the adequacy of the concrete during the period of extended operation.

Follow-up RAI B2.1.31-2
Background

By letter dated December 17, 2010, the applicant responded to a staff RAI and explained that components affected by groundwater in-leakage are managed under the Structures Monitoring Program which implements the Structural Engineering Standard Technical Procedure issued in March 2010. The program covers "building structural steel" and instructs the inspectors to look for degradation such as corrosion, peeling paint, excessive deflection of members, etc.

Issue

Although the procedure was updated in March 2010, the staff noted several areas of degradation due to in-leakage during walkdowns in October 2010. The staff needs more information on how this will be addressed during the period of extended operation.

Request

Explain what actions will be taken when degradation is noted in areas prone to in-leakage and whether or not additional actions are taken to monitor these areas (e.g. more frequent inspections).

Follow-up RAI B2.1.31-4
Background

By letter dated December 17, 2010, the applicant responded to a staff RAI and explained that spent fuel pool leakage has migrated through the surrounding concrete in the past. The applicant further stated that the leakage was stopped in 2004 after the application of a nonmetallic liner to the spent fuel pool.

Issue

The applicant did not provide adequate justification for its conclusion that the leakage has stopped and that no through-wall leakage is occurring. In addition, based on industry operating experience with failures of spent fuel pool nonmetallic coatings, the staff is not confident that the nonmetallic liner is an appropriate long-term fix.

Request

1. Discuss what measures will be taken to demonstrate the adequacy of the concrete and rebars exposed to SFP leakage, including the possibility of core bores from known leakage locations.
2. Explain how the conclusion was reached that through-wall leakage is not occurring, especially in inaccessible areas. Include a discussion of any additional inspections that will be conducted during the period of extended operation to verify that leakage is not occurring.
3. If the nonmetallic liner is relied upon to stop leakage, explain what measures will be taken to ensure the adequacy of the liner during the period of extended operation.