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Orf, Tracy

From: Boyce, Tom (NRR)
Sent: Thursday, October 08, 2009 6:09 PM
To: Khanna, Meena; Paige, Jason
Cc: Farzam, Farhad
Subject: RE: Outcome from Crystal River call

My edits included in the below.
Tom

From: Khanna, Meena
Sent: Thursday, October 08, 2009 5:39 PM
To: Boyce, Tom (NRR); Paige, Jason
Cc: Farzam, Farhad
Subject: FW: Outcome from Crystal River call
Importance: High

Jason, great summary..i just added a few edits. Feel free to call me if you want to discuss.

thanks,
Meena

From: Paige, Jason
Sent: Thursday, October 08, 2009 5:13 PM
To: Boyce, Tom (NRR); Khanna, Meena
Subject: Outcome from Crystal River call

Please provide your comments to the write-up below.
Below is a summary of the call from NRR's perspective, and are providing it for management awareness only.
Region II has the lead for this issue and will provide additional information as appropriate.

On Friday, October 2, 2009, Crystal River was performing hydro-demolition to support steam generator removal and replacement activities (the equipment hatch is too small to remove the SGs). While performing the demolition, the licensee noticed that water was leaking out of containment from a crack about 2.5 feet long. The crack runs vertically up containment and is located in between the vertical and horizontal tendons. It has been categorized as delamination of concrete. The licensee has not yet been able to determine how far around the containment the crack has propagated.

Current plant status: Crystal River is in Mode 6 and they have completed the hydro-demolition on containment for a removed section of 25' by 26'. They are currently offloading fuel from the reactor vessel. They had completed an analysis that shows that the containment will be able to withstand temperatures generated from any decay heat. Tomorrow (10/9), the licensee will have completed an analysis on the polar crane to ensure that it will be able to withstand the weight of the SGs.

NRC call with licensee: On Thursday afternoon, October 8, 2009, NRC Region II led a teleconference with Crystal River for them to discuss their actions to date, their strategy for addressing the identified crack in containment, and ongoing analyses being performed by Crystal River and vendors. Representatives from NRR DE, DLR, and DORL also tied into the call. The following items were discussed:

- In the near future, the licensee will complete a failure analysis and root cause analysis, although no specific date has been set for completing this. The analyses mentioned above have all been entered in their corrective action program for tracking. The licensee plans to determine how far the crack has propagated using non-destructive techniques. To assist in their analyses, the licensee has requested support from various vendors

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(MPR, Sargent & Lundy, and Bechtel). They have also outreached to NEI and INPO for assistance. Until the licensee has completed its failure and root cause analyses, they will not know their path forward with regards to licensing action(s) needed (i.e., license amendment request). The licensee will need to declare the containment operable before they transition to Mode 4, which is tentatively scheduled for early December 2009. The licensee stated that once they obtain additional or any new information, they will notify the NRC immediately.

- The licensee detensioned 10 vertical tendons (of ~144) and 17 horizontal tendons (of ~282) in preparation for the hydro-demolition.

- No patterns of relaxed tendons had been seen from a review of the data from surveillances of containment tendons.

- In preparation for the hydro-demolition, the licensee had performed an operating experience search of issues that resulted from replacing SGs through a removed section from containment. The licensee only identified voiding issues in the containment and set forth contingency plans to address potential voiding issues.

- There have been no media reports on the crack issue to date. There were two phone calls related to the hydro-demolition activity.

- The region will be conducting a special inspection starting on Tuesday, October 13, 2009, that is expected to last for approximately three months. They may hold a public meeting sometime after Thanksgiving to discuss the progress of the inspection as well as to maintain openness with the public. The region will complete a press release by COB today (10/8) to announce the special inspection and purpose. The region (special inspection team) will be the lead on this issue as well as serve as the NRC point of contact for the licensee. NRR will support the inspection by sending an experienced structural engineer to Crystal River.

Jason Paige, Turkey Point Project Manager
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