KHNPDCDRAIsPEm Resource

From: Ciocco, Jeff
Sent: Monday, July 20, 2015 9:40 AM
To: apr1400rai@khnp.co.kr; KHNPDCDRAIsPEm Resource; Harry (Hyun Seung) Chang; Yunho Kim; Christopher Tyree
Cc: Reddy, Devender; Dias, Antonio; Betancourt, Luis; Lee, Samuel
Subject: APR1400 Design Certification Application RAI 89-8052 (10.04.05 - Circulating Water System)
Attachments: APR1400 DC RAI 89 SPSB 8052.pdf; image001.jpg

KHNP,

The attachment contains the subject request for additional information (RAI). This RAI was sent to you in draft form. Your licensing review schedule assumes technically correct and complete responses within 30 days of receipt of RAIs.

Please submit your RAI response to the NRC Document Control Desk.

Thank you,

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Hearing Identifier: KHNP_APR1400_DCD_RAI_Public
Email Number: 98

Mail Envelope Properties (8b5ce6dd605a4f09afb7769ac5912183)

Subject: APR1400 Design Certification Application RAI 89-8052 (10.04.05 - Circulating Water System)
Sent Date: 7/20/2015 9:40:05 AM
Received Date: 7/20/2015 9:40:06 AM
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APR1400 DC RAI 89 SPSB 8052.pdf	86380	
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REQUEST FOR ADDITIONAL INFORMATION 89-8052

Issue Date: 07/20/2015
Application Title: APR1400 Design Certification Review – 52-046
Operating Company: Korea Hydro & Nuclear Power Co. Ltd.
Docket No. 52-046
Review Section: 10.04.05 - Circulating Water System
Application Section:

QUESTIONS

10.04.05-1

GDC 4 requires, in part, that SSCs important to safety be “appropriately protected against dynamic effects, including the effects of discharging fluids.” According to SRP 10.4.5, the requirements of GDC 4 are met when the circulating water (CW) system design includes provisions to accommodate the effects of discharge water. The SRP further states that means should be provided to detect leakage in the CW system in order not to adversely affect when there is failure of a component (e.g., expansion joint) or piping in the CW system.

In the review of DCD Tier 2, Section 10.4.5, the staff could not find any provision to meet the GDC 4 criteria, as it relates to dynamic effects such as water hammer, during plant startup and shutdown, and accident conditions. Also lacking from the DCD was information related to dealing with flood in the turbine building.

Thereforethe applicant is requested revise the DCD in order to provide information on how to meet the GDC 4 criteria; specifically, how to avoid water (steam) hammer effects. The applicant is also requested to identify how, in the case of a flooding, the floodwater in the turbine building is released from building.


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