KHNPDCDRAIsPEm Resource

From:	Ciocco, Jeff
Sent:	Monday, May 02, 2016 1:40 PM
To:	apr1400rai@khnp.co.kr; KHNPDCDRAIsPEm Resource; Jungho Kim (jhokim082 @gmail.com); Andy Jiyong Oh; Christopher Tyree
Cc:	Hernandez, Raul; Dias, Antonio; Wunder, George; Williams, Donna
Subject:	APR1400 Design Certification Application RAI 474-8588 (09.01.04 - Light Load Handling System (Related to Refueling))
Attachments:	APR1400 DC RAI 474 SPSB 8588.pdf

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. However, KHNP requests, and we grant, 45 days to respond to this RAI. We may adjust the schedule accordingly.

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

Thank you,

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U.S.NRC
United States Nuclear Regulatory Commission
Protecting People and the Environment

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Subject: APR1400 Design Certification Application RAI 474-8588 (09.01.04 - Light Load Handling System (Related to Refueling))
Sent Date: 5/2/2016 1:39:54 PM
Received Date: 5/2/2016 1:39:57 PM
From: Ciocco, Jeff

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MESSAGE	608	5/2/2016 1:39:57 PM
APR1400 DC RAI 474 SPSB 8588.pdf	86517	
image001.jpg	5040	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
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REQUEST FOR ADDITIONAL INFORMATION 474-8588

Issue Date: 05/02/2016
Application Title: APR1400 Design Certification Review – 52-046
Operating Company: Korea Hydro & Nuclear Power Co. Ltd.
Docket No. 52-046
Review Section: 09.01.04 - Light Load Handling System (Related to Refueling)
Application Section: Section 9.1.4

QUESTIONS

09.01.04-5

In RAI 161-7992 question 9.1.4-1 Item b, the staff requested the applicant to provide a refueling cavity drain-down evaluation, as described in SRP 9.1.4.III.3.D.ii. The applicant's response indicates the worst drain-down scenario as the one in which the spent fuel assembly is temporarily stored, in a vertical position, in the fuel carrier upender.

The staff evaluated the applicant's response and determined that additional information is needed. Taking into consideration the refueling operations, the staff would have expected the worst case to occur with fuel already located in the double-capacity upender and another fuel assembly in transit, elevated at the maximum lift elevation.

The staff requests the applicant to justify the basis for the initial assumptions described, or to re-evaluate the drain-down scenario with more limiting initial conditions.

09.01.04-6

In RAI 161-7992 question 9.1.4-1 Item b, the staff requested the applicant to provide a refueling cavity drain-down evaluation, as described in SRP 9.1.4.III.3.D.ii. In its response the applicant discusses the refueling pool seal design and system misalignment.

The staff evaluated the applicant's response and determined that it does not address the drainage caused by failures of non-Seismic Category I SSCs that connect to the refueling pool.

The staff requests the applicant to identify all non-Seismic Category I SSCs that connect to the refueling pool (including their associated elevations), and to evaluate the drain-down scenario caused by failure of these non-Seismic Category I SSCs.


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