

KHNPDCDRAIsPEm Resource

From: Ciocco, Jeff
Sent: Wednesday, July 22, 2015 1:39 PM
To: apr1400rai@khnp.co.kr; KHNPDCDRAIsPEm Resource; Harry (Hyun Seung) Chang; Yunho Kim; Christopher Tyree
Cc: Hernandez, Raul; Dias, Antonio; Umana, Jessica; Wunder, George; Lee, Samuel
Subject: APR1400 Design Certification Application RAI 98-8051 (09.01.02 - New and Spent Fuel Storage)
Attachments: APR1400 DC RAI 98 SPSB 8051.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, 60 days to respond to the RAI question. We may adjust the schedule accordingly.

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: 107

Mail Envelope Properties (2c1bfb085b7f456c9f562f9b8ae45f07)

Subject: APR1400 Design Certification Application RAI 98-8051 (09.01.02 - New and Spent Fuel Storage)
Sent Date: 7/22/2015 1:39:19 PM
Received Date: 7/22/2015 1:39:20 PM
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Files	Size	Date & Time
MESSAGE	626	7/22/2015 1:39:20 PM
APR1400 DC RAI 98 SPSB 8051.pdf		87410
image001.jpg	5040	

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REQUEST FOR ADDITIONAL INFORMATION 98-8051

Issue Date: 07/22/2015
Application Title: APR1400 Design Certification Review – 52-046
Operating Company: Korea Hydro & Nuclear Power Co. Ltd.
Docket No. 52-046
Review Section: 09.01.02 - New and Spent Fuel Storage
Application Section: Section 9.1.2

QUESTIONS

09.01.02-8
RAI 9.1.2-8

GDC 61 requires that the fuel storage system be designed for adequate safety under anticipated operating and accident conditions. The fuel storage system must be designed with (1) the capability for appropriate periodic inspection and testing of components important to safety, (2) suitable shielding for radiation protection, (3) appropriate containment, confinement, and filtering capability, (4) residual heat removal that reflects the safety importance of decay heat and other residual heat removal, and (5) the capability to prevent a significant reduction in fuel storage coolant inventory under accident conditions.

SRP Section 9.1.2.III.2.H.i states that the spent fuel pool (SFP) design should include weirs and gates separating the spent fuel storage areas from handling areas to prevent the accidental draining of the coolant to levels inadequate for fuel cooling or radiation shielding. The bottoms of any gates should be above the top of the fuel assemblies, and the volume of the adjacent fuel-handling areas should be limited so that leakage into these areas while drained would not reduce the coolant inventory to less than 3 meters (10 feet) above the top of the fuel assemblies. The staff determined that the applicant's description of the SFP does not address all the design criteria identified in SRP Section 9.1.2.III.2.H.i.

The staff requests the applicant to discuss in the DCD the (sizing) volume of the adjacent fuel-handling areas, such that the leakage into these areas while drained would not reduce the coolant inventory to less than 3 meters (10 feet) above the top of the fuel assemblies.



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