

KHNPDCRAIsPEm Resource

From: Ciocco, Jeff
Sent: Thursday, October 29, 2015 1:07 PM
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Cc: Ashcraft, Joseph; Jackson, Terry; Ward, William; Lee, Samuel
Subject: APR1400 Design Certification Application RAI 276-8304 (07.04 - Safe Shutdown Systems)
Attachments: APR1400 DC RAI 276 ICE 8304.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 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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REQUEST FOR ADDITIONAL INFORMATION 276-8304

Issue Date: 10/29/2015
Application Title: APR1400 Design Certification Review – 52-046
Operating Company: Korea Hydro & Nuclear Power Co. Ltd.
Docket No. 52-046
Review Section: 07.04 - Safe Shutdown Systems
Application Section:

QUESTIONS

07.04-7

Provide inspection, test, analyses, and acceptance criteria (ITAAC) to verify the controls in the remote shutdown room (RSR) for the gaseous waste system and the area radiation monitoring system.

10 CFR 52.47(b)(1) requires that a design certification application contain the proposed ITAAC that are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the acceptance criteria met, a plant that incorporates the design certification is built and will operate in accordance with the design certification, the provisions of the Atomic Energy Act, and the NRC's regulations. The staff noted the APR1400 FSAR Tier 1 design descriptions for the gaseous waste system and area radiation monitoring system in Tables 2.7.6.2-2, "Gaseous Radwaste System Components List," and 2.7.6.5-1, "Area Radiation Monitoring System Components List," identify displays and control in the RSR for these systems. However, the corresponding ITAAC do not verify these displays and controls in the RSR. Provide ITAAC for FSAR Tier 1, Tables 2.7.6.2-4, "Gaseous Radwaste System ITAAC," and 2.7.6.5-3, "Area Radiation Monitoring System ITAAC," to test the controls and/or displays in the RSR for the gaseous waste system and the area radiation monitoring system.

07.04-8

Clarify inconsistencies between APR1400 FSAR Tier 2, Table 7.4-1, "Remote Shutdown Console Instrumentation and Controls for Hot Shutdown," as compared to Chapter 16, Table 3.3.12-1, "Remote Shutdown Display and Control Functions."

GDC 19 requires, in part, that equipment at appropriate locations outside the control room be provided (1) with a design capability for prompt hot shutdown of the reactor, including necessary I&C to maintain the unit in a safe condition during hot shutdown, and (2) with a potential capability for subsequent cold shutdown of the reactor through the use of suitable procedures. Clarify why DCD Tier 2, Chapter 7, Table 7.4-1, does not match Chapter 16, Table 3.3.12-1. The following list the apparent discrepancies.

Table 7.4-1

Table 3.3.12-1

Items 5 & 7

Items 6,7 & 8

Items 9,10,11,47

not listed

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not listed Items 54,55,56,57

41 & 81 (both status) 23 & 59 (status & control)

not listed 58 (non-safety transfer switch)

Note: Should the safety transfer switches be listed on both? Revise the tables as necessary or provide the basis for the differences.



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