

KHNPDCRAIsPEm Resource

From: Ciocco, Jeff
Sent: Monday, September 28, 2015 7:19 AM
To: apr1400rai@khnp.co.kr; KHNPDCRAIsPEm Resource; Harry (Hyun Seung) Chang; Andy Jiyong Oh; Christopher Tyree
Cc: Williams, Stephen; McCoppin, Michael; Olson, Bruce; Lee, Samuel
Subject: APR1400 Design Certification Application RAI 230-8201 (11.02 - Liquid Waste Management System)
Attachments: APR1400 DC RAI 230 RPAC 8201.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. 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,

Jeff Ciocco
New Nuclear Reactor Licensing
301.415.6391
jeff.ciocco@nrc.gov



Hearing Identifier: KHNP_APR1400_DCD_RAI_Public
Email Number: 278

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Subject: APR1400 Design Certification Application RAI 230-8201 (11.02 - Liquid Waste Management System)
Sent Date: 9/28/2015 7:18:53 AM
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From: Ciocco, Jeff
Created By: Jeff.Ciocco@nrc.gov

Recipients:

"Williams, Stephen" <Stephen.Williams@nrc.gov>
Tracking Status: None
"McCoppin, Michael" <Michael.McCoppin@nrc.gov>
Tracking Status: None
"Olson, Bruce" <Bruce.Olson@nrc.gov>
Tracking Status: None
"Lee, Samuel" <Samuel.Lee@nrc.gov>
Tracking Status: None
"apr1400rai@khnp.co.kr" <apr1400rai@khnp.co.kr>
Tracking Status: None
"KHNPDCDRAIsPEM Resource" <KHNPDCDRAIsPEM.Resource@nrc.gov>
Tracking Status: None
"Harry (Hyun Seung) Chang" <hyunseung.chang@gmail.com>
Tracking Status: None
"Andy Jiyong Oh" <jiyong.oh5@gmail.com>
Tracking Status: None
"Christopher Tyree" <Christopher.tyree@aecom.com>
Tracking Status: None

Post Office: HQPWMSMRS07.nrc.gov

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Options

Priority: Standard
Return Notification: No
Reply Requested: No
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REQUEST FOR ADDITIONAL INFORMATION 230-8201

Issue Date: 09/28/2015
Application Title: APR1400 Design Certification Review – 52-046
Operating Company: Korea Hydro & Nuclear Power Co. Ltd.
Docket No. 52-046
Review Section: 11.02 - Liquid Waste Management System
Application Section: 11.2

QUESTIONS

11.02-6

During the overall review and evaluation of section 11.2 the staff had concerns on what basis the applicant used to ensure the application design controls radioactive releases to the environment (GDC 60). Additionally, concerns pertaining to the requirements of 10 CFR Part 50.34a relating to the availability of equipment of sufficient design and related information to demonstrate that the objectives necessary for controlling releases of radioactive effluents to the environment have been met. Finally, the staff review of this design application raised concerns relating to 10 CFR Part 20.1406 implementation of design features to minimize contamination. The staff raised the following items of concern related to this application:

1. DCD section 11.2.1.3, the application states: “The design options for operator initiation and termination of the process operations and the selection of treatment components to achieve treatment objectives and effluent specifications to meet the set of regulations...” Staff would like to have the overall details explained dealing with the actions the operators will take to maintain dose limits within the prescribed bounds of the regulations.
2. Concerning GDC 60, and control of radioactive materials to the environment. In DCD section 11.2.1.4, the applicant states that, “The COL applicant is to provide the piping and instrumentation diagrams (P&IDs),” as COL item 11.2(4). The Staff would like to see P&IDs in the DCD that would clarify (Design Specifications) these items utilized to understand how the radwaste system is designed to control the releases of radioactive material to the environment.
3. DCD section 11.2.2.1.1 states, the applicant describes waste input streams. In the description of the waste input streams, the applicant uses the term “including but not limited to,” to describe some of the waste pathways. Staff is requesting that the applicant provide all systems that correspond to any of the waste streams discussed by the applicant. Current DCD text supports that there are potentially more pathways for each waste stream that are not described.
4. DCD section 11.2.2.1.2 of the applicant includes a statement that describes: “In the event that a small amount of fluid is accumulated in the drain pipe and triggers the level detection instrumentation, an alarm is initiated in the radwaste control room for timely operator actions.” Staff is seeking details for the actions that an operator would take once these indications are received.

Please address these items and provide a markup for the proposed DCD changes.

