

KHNPDCDRAIsPEm Resource

From: Ciocco, Jeff
Sent: Tuesday, September 08, 2015 1:30 PM
To: apr1400rai@khnp.co.kr; KHNPDCDRAIsPEm Resource; Harry (Hyun Seung) Chang; Andy Jiyong Oh; Christopher Tyree
Cc: Gran, Zachary; McCoppin, Michael; Olson, Bruce; Lee, Samuel
Subject: APR1400 Design Certification Application RAI 205-8230 (11.03 - Gaseous Waste Management System)
Attachments: APR1400 DC RAI 205 RPAC 8230.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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Hearing Identifier: KHNP_APR1400_DCD_RAI_Public
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Subject: APR1400 Design Certification Application RAI 205-8230 (11.03 - Gaseous Waste Management System)
Sent Date: 9/8/2015 1:30:12 PM
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Options

Priority: Standard
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REQUEST FOR ADDITIONAL INFORMATION 205-8230

Issue Date: 09/08/2015

Application Title: APR1400 Design Certification Review – 52-046

Operating Company: Korea Hydro & Nuclear Power Co. Ltd.

Docket No. 52-046

Review Section: 11.03 - Gaseous Waste Management System

Application Section:

QUESTIONS

11.03-5

Staff review of DCD section 11.3, "Gaseous Waste Management System" (GWMS) did not identify information to describe the operation of the charcoal delay beds. The review of charcoal delay beds is discussed in BTP 11-5.

The staff is requesting information to support compliance with 10 CFR 20.1301 and 1302 in terms of verifying the integrity of the gaseous effluent charcoal delay beds utilized to control radioactive effluent releases to members of the public. The application does not describe the methods that are in place to monitor conditions concerning a fire within the charcoal delay beds, ensuring integrity given a leak of the chilled water system, and information ensuring the applicant is capable of detecting clogs or blockage in the charcoal delay beds. Identification of figures that describe the flow path and the systems that interact with the charcoal delay beds are not evident during the application review.

The staff is requesting the following information:

1. Provide a description of the processes in place to monitor conditions for a fire in the charcoal delay beds.
2. Describe how potential leaks of the chilled water system are monitored and what measures would be taken to address water inside the charcoal delay beds. This should also include a description for how the applicant anticipates the corrosion inhibiting chemicals added from the chilled water would affect the charcoal delay beds.
3. Provide a description for the use of differential pressure sensors on the charcoal delay bed. What measures are in place for the applicant to detect any potential clogs in the charcoal delay beds?
4. Information is requested defining the flow paths that interact within the charcoal delay beds. This includes information of the gaseous flow paths and the chilled water flow path that acts to control temperature.

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

