

KHNPDCRAIsPEm Resource

From: Ciocco, Jeff
Sent: Thursday, October 22, 2015 8:57 AM
To: apr1400rai@khnp.co.kr; KHNPDCRAIsPEm Resource; Harry (Hyun Seung) Chang; Andy Jiyong Oh; Erin Wisler
Cc: Strnisha, James; Clark, Theresa; Ward, William; Umana, Jessica; Steckel, James; Lee, Samuel
Subject: APR1400 Design Certification Application RAI 266-8338 (06.02.02 - Containment Heat Removal Systems)
Attachments: APR1400 DC RAI 266 MEB 8338.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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Subject: APR1400 Design Certification Application RAI 266-8338 (06.02.02 - Containment Heat Removal Systems)
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REQUEST FOR ADDITIONAL INFORMATION 266-8338

Issue Date: 10/22/2015

Application Title: APR1400 Design Certification Review – 52-046

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

Docket No. 52-046

Review Section: 06.02.02 - Containment Heat Removal Systems

Application Section:

QUESTIONS

06.02.02-31

NRC regulation 10 CFR 50.46(b)(5) requires that after initiation of the Emergency Core Cooling System (ECCS), the core temperature shall be maintained at an acceptably low value and decay heat shall be removed for the extended period of time required by the long-lived radioactivity remaining in the core. In order for this requirement to be met satisfactorily, the effects of debris generation by the loss-of-coolant (LOCA) on downstream equipment should be evaluated. Regulatory Guide 1.82 provides the relevant guidance and SRP Section 6.2.2 provides the review criteria related to this subject.

This RAI is a supplement to RAI 63-7983, Question Number 06.02.02-13. In response to RAI 63-7983, Question Number 06.02.02-13, dated August 10, 2015, the applicant committed to add the containment spray (CS) pump miniflow heat exchangers (CS-HE02A/02B) to Table 4.2-1, "Components in the Flow Path during an LBLOCA," in Technical Report (TR) APR1400-E-N-NR-14001, "Design Features to Address GSI-191," currently revision 0. However, Section 4.2.3.2, "Heat Exchanger Evaluation," and the applicable subsections of the TR do not provide an evaluation of the effects of post-LOCA debris for heat exchangers CS-HE02A/02B. The applicant is requested to describe the evaluation of the effects of post-LOCA debris for heat exchangers CS-HE02A/02B, including revising the TR as appropriate.



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