KHNPDCDRAIsPEm Resource

From: Ciocco, Jeff
Sent: Tuesday, December 22, 2015 10:37 AM
To: apr1400rai@khnp.co.kr; KHNPDCDRAIsPEm Resource; Harry (Hyun Seung) Chang; Andy Jiyong Oh; Erin Wisler
Cc: Walker, Jacqwan; Junge, Michael; Ward, William; Vera, John; Lee, Samuel
Subject: APR1400 Design Certification Application RAI 349-8440 (14.03.09 - Human Factors Engineering - Inspections, Tests, Analyses, and Acceptance Criteria)
Attachments: APR1400 DC RAI 349 COLP 8440.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

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

U.S.NRC
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Hearing Identifier: KHNP_APR1400_DCD_RAI_Public
Email Number: 397

Mail Envelope Properties (7448e953966f4d11a67c0a3febc85e18)

Subject: APR1400 Design Certification Application RAI 349-8440 (14.03.09 - Human Factors Engineering - Inspections, Tests, Analyses, and Acceptance Criteria)
Sent Date: 12/22/2015 10:36:40 AM
Received Date: 12/22/2015 10:36:42 AM
From: Ciocco, Jeff

Created By: Jeff.Ciocco@nrc.gov

Recipients:
"Walker, Jacqwan" <Jacqwan.Walker@nrc.gov>
Tracking Status: None
"Junge, Michael" <Michael.Junge@nrc.gov>
Tracking Status: None
"Ward, William" <William.Ward@nrc.gov>
Tracking Status: None
"Vera, John" <John.Vera@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
"Erin Wisler " <erin.wisler@aecom.com>
Tracking Status: None

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APR1400 DC RAI 349 COLP 8440.pdf	96704	

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REQUEST FOR ADDITIONAL INFORMATION 349-8440

Issue Date: 12/22/2015
Application Title: APR1400 Design Certification Review – 52-046
Operating Company: Korea Hydro & Nuclear Power Co. Ltd.
Docket No. 52-046
Review Section: 14.03.09 - Human Factors Engineering - Inspections, Tests, Analyses, and Acceptance Criteria
Application Section:

QUESTIONS

14.03.09-1

SRP 14.3.9, "Human Factors Engineering – Inspections, Tests, Analysis and Acceptance Criteria," Section II, Acceptance Criteria 1 states:

SRP Chapter 18 provides guidance for the NRC staff to use in determining whether an applicant has proposed an acceptable HFE design. The applicant's HFE program will be evaluated in accordance with the review criteria of SRP Chapter 18 and NUREG-0711, "Human Factors Engineering Program Review Model." As indicated in Chapter 18, the HFE program technical information for the DC or COL review may be based on a design and implementation process plan. Therefore, the DC or COL ITAAC may be based on a design and implementation process plan. For example, acceptance criteria for the task analysis program element may be stated as "a report exists and concludes that function-based task analyses were conducted in conformance with the task analysis implementation plan and include the following functions . . ."

In Tier 1, Table 2.9-1, "Human Factors engineering ITAAC," row 1, the acceptance criteria does not state that a report will be provided concluding the pass or fail criteria are satisfied. Therefore, the staff would not be able to verify that all pass or fail criteria were satisfied. Revise the table to state a report will "exist and conclude" that acceptance criteria (pass or fail criteria) associated with the test scenarios will be satisfied upon initial performance of the scenarios or upon remediation of failures.