

KHNPDCDRAIsPEm Resource

From: Ward, William
Sent: Friday, August 07, 2015 3:57 PM
To: 'apr1400rai@khnp.co.kr'; KHNPDCDRAIsPEm Resource; 'Chang, Harry'; 'Yunho Kim (yshh8226@gmail.com)'; jiyong.oh5@gmail.com; daegeun.ahn@gmail.com; Tyree, Christopher (christopher.tyree@aecom.com)
Cc: Ciocco, Jeff; Lee, Samuel; McCoppin, Michael; Olson, Bruce; Williams, Stephen
Subject: APR1400 Design Certification Application RAI 131-8087 (11.5-Process and Effluent Radiological Monitoring Inst. & Sampling Sys.)
Attachments: image001.jpg; APR1400 DC RAI 131 RPAC 8087.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, 90 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,

William R. Ward, P.E.
Senior Project Manager
U.S. Nuclear Regulatory Commission
m/s T6-D38M
Washington, DC, 20555-0001
NRO/DNRL/Licensing Branch 2
ofc T6-D31
ofc (301) 415-7038 fax (301) 415-6350



Please consider the environment before printing this email.

Hearing Identifier: KHNP_APR1400_DCD_RAI_Public
Email Number: 140

Mail Envelope Properties (c86b7c5750a14b40b50e1ea947bdae60)

Subject: APR1400 Design Certification Application RAI 131-8087 (11.5-Process and Effluent Radiological Monitoring Inst. & Sampling Sys.)
Sent Date: 8/7/2015 3:56:39 PM
Received Date: 8/7/2015 3:56:41 PM
From: Ward, William

Created By: William.Ward@nrc.gov

Recipients:

"Ciocco, Jeff" <Jeff.Ciocco@nrc.gov>
Tracking Status: None
"Lee, Samuel" <Samuel.Lee@nrc.gov>
Tracking Status: None
"McCoppin, Michael" <Michael.McCoppin@nrc.gov>
Tracking Status: None
"Olson, Bruce" <Bruce.Olson@nrc.gov>
Tracking Status: None
"Williams, Stephen" <Stephen.Williams@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
"Chang, Harry" <hyunseung.chang@gmail.com>
Tracking Status: None
"Yunho Kim (yshh8226@gmail.com)" <yshh8226@gmail.com>
Tracking Status: None
"jiyong.oh5@gmail.com" <jiyong.oh5@gmail.com>
Tracking Status: None
"daegeun.ahn@gmail.com" <daegeun.ahn@gmail.com>
Tracking Status: None
"Tyree, Christopher (christopher.tyree@aecom.com)" <christopher.tyree@aecom.com>
Tracking Status: None

Post Office: HQPWMSMRS05.nrc.gov

Files	Size	Date & Time
MESSAGE	777	8/7/2015 3:56:41 PM
image001.jpg	4205	
APR1400 DC RAI 131 RPAC 8087.pdf		84753

Options

Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:



REQUEST FOR ADDITIONAL INFORMATION 131-8087

Issue Date: 08/07/2015

Application Title: APR1400 Design Certification Review – 52-046

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

Docket No. 52-046

Review Section: 11.05 - Process and Effluent Radiological Monitoring Instrumentation and Sampling Systems

Application Section: 11.5

QUESTIONS

11.05-1

11.5 - SRP 11.5.2.2, Description of the PERMSS Gaseous PERMSS

Information contained in DCD section 11.5.2.2 does not include the level of detail SRP section 11.5 describes for the description for the PERMSS. The description of monitors in DCD section 11.5.2.2 for the Gaseous PERMSS, and the detectors functions are not completely described in Table 11.5-1. There are several instances where a detector will have the function and remark of "Alarm (MCR)" but have no clarifying detail to describe these functions in DCD section 11.5.2.2. Upon inspection of Tier 1 Section 2.7.6.4 NRC staff observes that there are indications not described in Section 11.5 that are seen in Tier 1 Table 2.7.6.4-1. Tier 1 Table 2.7.6.4-1 has a column to describe any Display/Alarm at MCR/ or RSR indication. Each detector in this TIER 1 table has a "Yes" marked for all three indications, however DCD Section 11.5 does not include a full description of all indications in either the text or DCD Tables 11.5-1.

As a result NRC staff request that the applicant provide the following information:

- Each monitor should contain a description of its functions and safety related requirements in meeting redundancy or independence (where applicable)
- Each monitor should contain a discussion on radiation detection ranges
- Each monitor should contain a discussion on the process configuration of the detector
- Each monitor should contain a discussion on its location
- Discussions of applicable regulatory guides should be referenced
- Provide a discussion on the alarms and interlocks established for each detector.
- Each monitor should contain information on the sampling stations if applicable, especially effluent monitors.
- Provisions for purging of sample lines and minimizing process and effluent volumes
- Each monitor should contain a discussion of the safety classification associated with the monitor
- There should be a discussion on the calibration and quality assurance for each detector

Please address these items and provide a mark up for the proposed DCD changes.
This information exchange may require an audit.