

KHNPDCDRAIsPEm Resource

From: Ward, William
Sent: Tuesday, July 05, 2016 5:17 PM
To: apr1400rai@khnp.co.kr; KHNPDCDRAIsPEm Resource; daegeun.ahn@gmail.com; Andy Jiyong Oh; Tyree, Christopher (christopher.tyree@aecom.com)
Cc: Williams, Donna ; Ciocco, Jeff; Wunder, George; Zimmerman, Jacob; Foli, Adakou
Subject: APR1400 Design Certification Application RAI 499-8600 [9.5.3 - Lighting Systems]
Attachments: APR1400 DC RAI 499 EEB 8600.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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Subject: APR1400 Design Certification Application RAI 499-8600 [9.5.3 - Lighting Systems]
Sent Date: 7/5/2016 5:16:30 PM
Received Date: 7/5/2016 5:16:30 PM
From: Ward, William

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REQUEST FOR ADDITIONAL INFORMATION 499-8600

Issue Date: 07/01/2016
Application Title: APR1400 Design Certification Review – 52-046
Operating Company: Korea Hydro & Nuclear Power Co. Ltd.
Docket No. 52-046
Review Section: 09.05.03 - Lighting Systems
Application Section:

QUESTIONS

09.05.03-17

NUREG-0800, Section 9.5.3 states: “The normal lighting system(s) is acceptable if the integrated design of the system(s) will provide adequate station lighting in all areas, from power sources described in Section 8.2 of the Standard Review Plan (SRP) that are required for control and maintenance of equipment and plant access routes during normal plant operations.”

In response to RAI 8466, Question 09.05.03-12, the applicant stated that the normal lighting fed from a non-Class 1E 480 volt alternating current (VAC) bus located in the alternate alternating current (AAC) gas turbine generator (GTG) building provides adequate lighting after the AAC source provides power during a station blackout (SBO). However, in Section 9.5.3 of the DCD Tier 2, the applicant stated that the normal lighting, which is energized from non-Class 1E 480 VAC buses and permanent non-safety (PNS) buses, is not available during loss of offsite power (LOOP), safe shutdown earthquake (SSE), and SBO events.

Since the AAC source provides backup power for the non-Class 1E bus located in the AAC GTG building during an SBO and the PNS buses during a LOOP, please revise the statement in Section 9.5.3 of the DCD Tier 2 to indicate that normal lighting will be available after the AAC/backup source provides power during LOOP, SBO, and SSE events.