

KHNPDCDRAIsPEm Resource

From: Ciocco, Jeff
Sent: Wednesday, October 14, 2015 6:33 AM
To: apr1400rai@khnp.co.kr; KHNPDCDRAIsPEm Resource; Harry (Hyun Seung) Chang; Andy Jiyong Oh; Steven Mannon
Cc: Honcharik, John; Mitchell, Matthew; Betancourt, Luis; Umana, Jessica; Lee, Samuel
Subject: APR1400 Design Certification Application RAI 241-8316 (03.05.01.03 - Turbine Missiles)
Attachments: APR1400 DC RAI 241 MCB 8316.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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REQUEST FOR ADDITIONAL INFORMATION 241-8316

Issue Date: 10/14/2015

Application Title: APR1400 Design Certification Review – 52-046

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

Docket No. 52-046

Review Section: 03.05.01.03 - Turbine Missiles

Application Section:

QUESTIONS

03.05.01.03-1

APR1400 FSAR, Tier 2, Subsection 3.5.1.3.1, "Geometry," states that its T/G shaft is placed in line with the containment and auxiliary building, and Figure 3.5-1 shows that the T/G is favorably-orientated so that all essential SSCs are outside of the low-trajectory turbine missile strike zone, as defined by RG 1.115. The low-trajectory turbine missile strike zone is concentrated in an area bounded by lines inclined at 25 degrees to the turbine wheel planes and passing through the end wheels of the low-pressure stages. In a letter dated August 4, 2015, the applicant provided a revised Figure 3.5-1 to provide an accurate site plot plan that is consistent with APR1400 FSAR, Tier 2, Figure 1.2-1, and denoting the applicable essential SSCs. However, the revised Figure 3.5-1 does not provide an accurate low-trajectory turbine missile strike zone, since the lines of the strike zone are not depicted as 25 degrees to the turbine wheel planes and passing through the end wheels of the low-pressure stages. Therefore, the NRC staff could not verify whether all essential SSCs are outside of the low-trajectory turbine missile strike zone, and requests that the low-trajectory turbine missile strike zone be drawn such that it depicts the lines of the strike zone from the ends of the low-pressure stages with a 25 degree angle to the turbine rotor plane, as defined in RG 1.115, similar to the previous Figure 3.5-1.



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