

KHNPDCDRAIsPEm Resource

From: Ciocco, Jeff
Sent: Wednesday, October 14, 2015 7:03 AM
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Subject: APR1400 Design Certification Application RAI 243-8289 (16 - Technical Specifications)
Attachments: APR1400 DC RAI 243 EEB 8289.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.

Please submit your RAI response to the NRC Document Control Desk.

Thank you,

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REQUEST FOR ADDITIONAL INFORMATION 243-8289

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: 16 - Technical Specifications

Application Section:

QUESTIONS

16-106

10 CFR 50.36 (d) (2), "Technical specifications," requires a licensee's TSs to establish limiting conditions for operation (LCOs) for equipment that is required for safe operation of the facility. The staff has the following questions related to DCD Tier 2, Chapter 16, Technical Specification, Section 3.8, Electrical Power System:

- a) DCD Tier 2, Chapter 16, Section 3.8.1 – "AC Sources Operating", Surveillance Requirement (SR) 3.8.1.6 states a Completion Time of 92 days to "verify fuel oil transfer system operates to automatically transfer fuel oil from storage tank to the day tank". Discuss why SR 3.8.1.6 is performed every 92 days, as opposed to 31 days as identified for other fuel oil tank related surveillances.
- b) DCD Tier 2, Chapter 16, Section 3.8.1 – "AC Sources Operating", Surveillance Requirement (SR) 3.8.1.14, requires verification of each EDG operation in percent rating for ≥ 2 hours and for remaining hours of ≥ 24 hours for loaded and test loaded operation. Please include the kW rating also for clarity.
- c) For DCD Tier 2, Chapter 16, Section 3.8.4 – "DC Sources Operating", it is noted that Surveillance Requirement (SR) number 3.8.4.3 in page 3.8.4-2 (To verify battery capacity adequacy....) has been omitted. Please add the SR number.
- d) For DCD Tier 2, Chapter 16, Section 3.8.6 – "Battery Cell Parameters", Surveillance Requirement (SR) 3.8.6.5 requires that the licensee "verify each battery connected cell float voltage is ≥ 2.07 V" in every 92 days. Discuss why SR 3.8.6.5 is performed every 92 days, as opposed to 31 days as identified for other cell parameter related surveillances.

16-107

10 CFR 50.36 (d) (2), "Technical specifications," requires a licensee's TSs to establish limiting conditions for operation (LCOs) for equipment that is required for safe operation of the facility. The staff has the following questions related to DCD Tier 2, Chapter 16, Technical Specification, Section 3.8, Electrical Power System:

- a) DCD Tier 2, Chapter 16, Section 3.8.1 – "AC Sources Operating", Surveillance Requirement (SR) 3.8.1.4, requires verification that each day tank contains $\geq 2,404$ L (635 Gal) of fuel oil. However, DCD Tier 2, Table 9.5.4-1 states for the fuel oil day tank a capacity (usable volume) of 2,078 L (549 Gal). provide clarification of the discrepancy.
- b) DCD Tier 2, Chapter 16, Section 3.8.3 – "Diesel Fuel Oil, Lube Oil, and Starting air", Condition E and SR 3.8.3.4 indicates starting air receiver pressure as < 40.77 kgf/cm²G (580 psig) and ≥ 8.78 kgf/cm²G (125 psig). Please provide a discussion and/or justification of the stated starting air receiver pressure. A summary of any supporting calculations may be referred.



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