

KHNPDCDRAIsPEm Resource

From: Ward, William
Sent: Tuesday, August 04, 2015 11:17 AM
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; Williams, Stephen; Gran, Zachary; Olson, Bruce
Subject: APR1400 Design Certification Application RAI 123-7920 (11.1 Source Terms)
Attachments: APR1400 DC RAI 123 RPAC 7920.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 the RAI question. 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 123-7920 (11.1 Source Terms)
Sent Date: 8/4/2015 11:16:32 AM
Received Date: 8/4/2015 11:16:34 AM
From: Ward, William

Created By: William.Ward@nrc.gov

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U.S.NRC

United States Nuclear Regulatory Commission

Protecting People and the Environment

REQUEST FOR ADDITIONAL INFORMATION 123-7920

Issue Date: 08/04/2015
Application Title: APR1400 Design Certification Review – 52-046
Operating Company: Korea Hydro & Nuclear Power Co. Ltd.
Docket No. 52-046
Review Section: 11.01 - Source Terms
Application Section: SRP 11.1

QUESTIONS

11.01-3

REQUIREMENT

RG 1.109; SRP 11.1; 10 CFR 50, APPENDIX I

ISSUE

The staff has performed a review of the LADTAP and GASPARG files provided by the applicant. Based on the review of the calculation input and output files and DCD tables the staff is unable to determine the default design parameters that were used in place of site specific data.

The applicant LADTAP input files indicate that Consumption Factors referenced in the application from RG 1.109 in Tables E-4 and E-5 are questionable when compared to the actual values in the Regulatory guide. Also upon review of the applicants LADTAP input and output files, the NRC staff notes that the applicant output files display individual consumption rates as 5.2 kg for Adults, 6.3 kg for Teen, and 5.2 kg for Child. These consumption rates are 100 times less than the values reported in the LADTAP input files provided and 100 times less than the values reported in RG 1.109 Table E-5.

INFORMATION NEEDED

The staff is requesting a calculation package that describes all input parameters and their source used within the LADTAP and GASPARG effluent dose codes. Provide the basis for all design parameters and values used in the LADTAP II and GASPARG II code calculations. Staff requests that these calculation packages include value derivations and references to sources of the data to support the review and evaluation of compliance with 10 CFR 50 Appendix I design dose requirements for liquid and gaseous effluents.

The staff is also requesting the applicant to confirm the values being reported in the LADTAP input and output files and results being reported in DCD Table 11.2-5.

Please address these items and provide a mark up for the proposed DCD changes. It may be necessary to provide this information in an audit.