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## RESPONSE TO AUDIT ISSUES

### APR1400 Topical Reports

Korea Electric Power Corporation / Korea Hydro & Nuclear Power Co., LTD

Docket No. PROJ0782

Review Section	TR Realistic Evaluation Methodology for LBLOCA of the APR1400
Application Section	Topical Report: APR1400-F-A-TR-12004 Realistic Evaluation Methodology for Large-Break LOCA of the APR1400
Issue Date	08/13/2015

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### **Audit Issues No. 93**

The guidance in RG 1.157, Section 4 establishes acceptable controls for the estimation of uncertainties. The uncertainty ranges for various parameters used in the actual demonstration calculations used to determine the limiting PCT for a LBLOCA are shown in Appendix J (page J-2). The ranges for the pressurizer pressure, fuel thermal conductivity, and the power peaking factor ( $F_q$ ) provided in Appendix J are inconsistent with the corresponding ranges listed in Table 5-1 of the topical report. Address these inconsistencies and their impact on the demonstration calculations.

**Response**

Table 1 attached in this response represents Table 5-1 in the topical report, and the following Table 2 contains page 2 in Appendix J. The [ ]<sup>TS</sup> in Table 2 was applied to demonstration calculation of the current version of the topical report.

However, LBLOCA analysis with TCD effects will be used [ ]

[ ]<sup>TS</sup>

Other inconsistencies except [ ]  
typos.

[ ]<sup>TS</sup> are

Reference

- [1] "FRAPCON-4.0: A Computer Code for the Calculation of Steady-State, Thermal-Mechanical Behavior of Oxide Fuel Rods for High Burnup," PNNL-19417, Vol. 1, Rev. 2, U.S.NRC, September 2015.

Table 1. Distributions and Ranges of the Uncertainty Parameters

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Table 2. Sampling Output in Appendix J

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### **Impact on DCD**

There is no impact on the DCD.

### **Impact on PRA**

There is no impact on the PRA.

### **Impact on Technical Specifications**

There is no impact on the Technical Specifications.

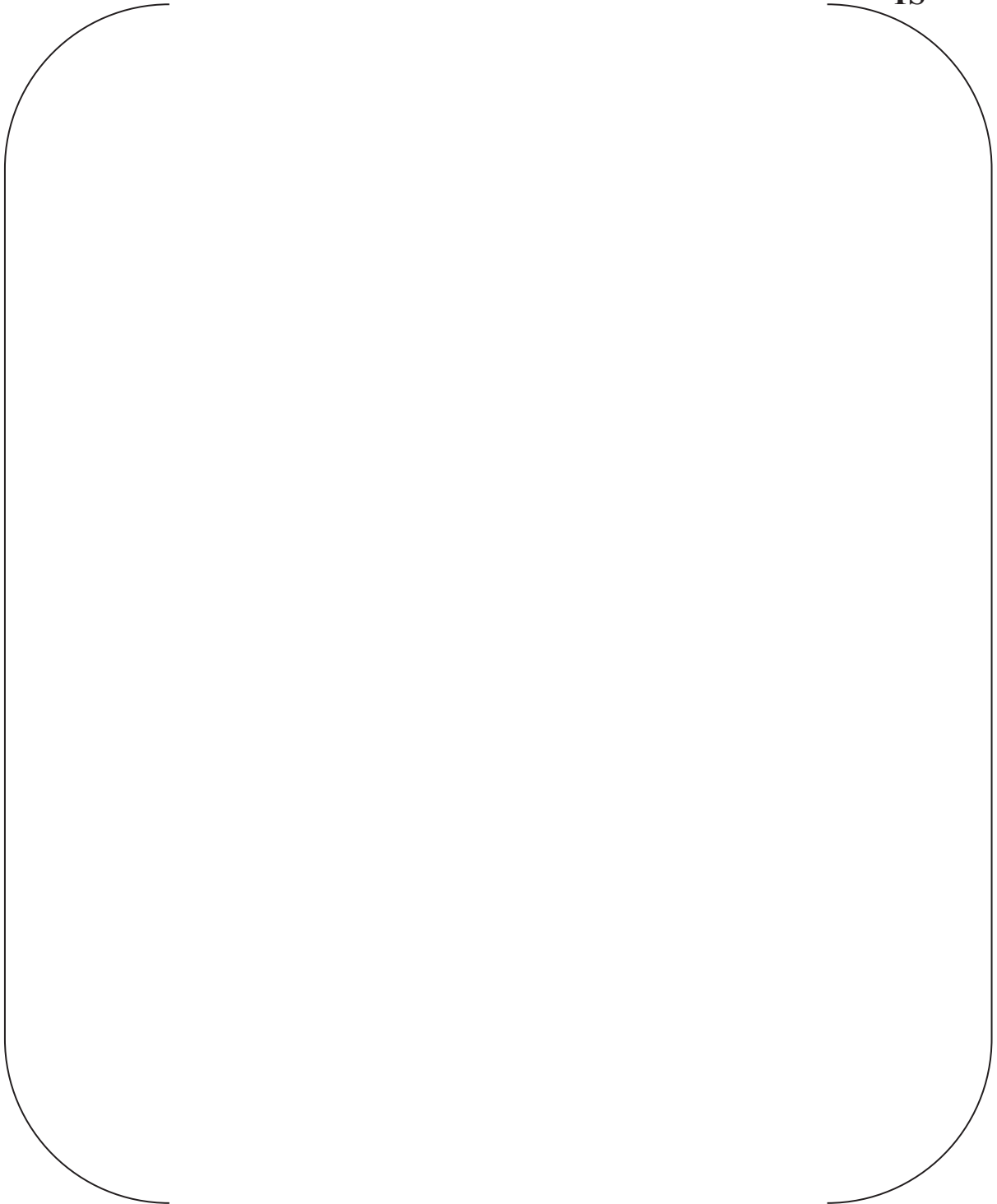
### **Impact on Technical/Topical/Environmental Report**

Topical report will be revised as discussed in this response.

There is no impact on Technical or Environmental Report.

Table 5-1 Distributions and Ranges of the Uncertainty Parameters

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title - APR1400 CAREM Topical Report

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