

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 |

Audit Issues No. 95

The guidance in RG 1.157, Section 3.8 establishes acceptable controls for the calculation of critical heat flux. Section 4 of the technical report (APR1400-F-C-NR-12001-P) discusses the development of the CHF correlation for the 16x16 PLUS7 fuel assemblies that is to be used for APR1400 analysis. RG 1.157 states "Research has shown that CHF is highly dependent on the fuel rod geometry, local heat flux, and fluid conditions." [

]TS

Response

System pressure during LBLOCA experiences from about 16 MPa to atmospheric pressure, thus CHF data or correlation which is used in LBLOCA analysis should cover the above pressure ranges. [

]TS

Reference

- [1] "KCE-1 Critical Heat Flux Correlation for PLUS7 Thermal Design," APR1400-F-C-TR-12002-NP, Rev.0, KHNP / KNF, November 2012.

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

There is no impact on any Technical, Topical, or Environmental Report.