
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

APR1400 Design Certification

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

Docket No. 52-046

RAI No.: 400-8425

SRP Section: 18 – Human Factors Engineering

Application Section:

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Question No. 18-120

Regulations in 10CFR 50.34(f)(2)(xxi) and 10CFR 50.34(f)(2)(xxiv) are applicable only to boilingwater reactors (BWRs).

The HD IP, Section 4.1.4.8, "Auxiliary Heat Removal," references 10CFR 50.34(f)(2)(xxi) and says that the APR1400 HSIS conforms to this regulation by redirecting to section 4.1.4.4, "Manual Feedwater Control," which discusses meeting 10CFR 50.34(f)(2)(xii), a requirement for auxiliary feedwater.

The HD IP, Section 4.1.4.9, "Reactor Level Monitoring," references 10CFR 50.34(f)(2)(xxiv) and says that the APR1400 HSIS conforms to this regulation by redirecting to section 4.1.4.6, "Core Cooling," which discusses meeting 10CFR 50.34(f)(2)(xviii), which is a requirement for auxiliary feedwater.

This is not correct because 10CFR 50.34(f)(2)(xxi) and 10CFR 50.34(f)(2)(xxiv) are not applicable to PWRs.

Revise the HD IP, Sections 4.1.4.8 and 4.1.4.9 as necessary so that the HD IP states the correct information.

Response

The Human-System Interface Design Implementation Plan (HD IP), APR1400-E-I-NR-14007 will be revised to state 10CFR 50.34(f)(2)(xxi) and 10CFR 50.34(f)(2)(xxiv) are not applicable in Sections 4.1.4.8 and 4.1.4.9, as indicated in the attachment associated with this response.

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 Reports

Technical report APR1400-E-I-NR-14007-NP, Rev.0, "HSI Design Implementation Plan," Section 4.1.4.8 and 4.1.4.9 will be revised, as indicated in the attachment associated with this response.

4.1.4.8 Auxiliary Heat RemovalTS
(**4.1.4.9 Reactor Level Monitoring**TS
(**4.1.4.10 Leakage Control**TS
(**4.1.4.11 Radiation Monitoring**TS
(**4.1.4.12 Manual Initiation of Protective Actions**TS
(**4.1.4.13 Diversity and Defense-in-Depth**TS
(**4.1.4.14 Important Human Actions**TS
(**4.1.4.15 Computer-Based Procedure Systems**TS
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