

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.: 107-8039
SRP Section: 18 – Human Factors Engineering
Application Section: 18.5
Date of RAI Issued: 07/23/2015

Question No. 18-11

Regulation: Title 10 CFR 50.54(m)(2) specifies staffing requirements to be met by a nuclear power plant licensee.

Evaluation: APR1400-K-I-NR-14005, Rev. 0, Section 4.3.1, "Initial S&Q Assumption" states that the initial S&Q assumption meets the minimum manning requirements of 10 CFR 50.54. This appears to conflict with a second statement in the same section that says the initial staffing assumption is based on the staffing constraint of the HFE program plan. APR1400-E-I-NR-14001, Rev. 0, "Human Factors Engineering Program Plan," Section 4.1, Assumptions and Constraints," lists the control room positions. This list is one Senior Reactor Operator short of minimum manning requirements identified in 10 CFR 50.54.

The S&Q Implementation Plan is also not clear whether the subsequent S&Q analysis could result in control room staffing levels less than the regulatory requirements

Question: Clarify whether minimum control room manning will conform to 50.54(m)(2).

Response

The shift technical advisor (STA) is to be licensed as a Senior Reactor Operator (SRO). Therefore, the constraint of the HFE program plan meets the requirements of 10 CFR 50.54(m)(2).

APR1400-E-I-NR-14001-P/NP, Rev. 0, "Human Factors Engineering Program Plan," Section 4.1 will be revised as indicated on the attached markup, to clarify that the STA is to be licensed as an SRO.

Because the initial S&Q assumption meets the minimum regulatory requirements, the subsequent S&Q analysis will not result in any reduction in control room staffing levels.

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

APR1400-E-I-NR-14001-P/NP, Rev. 0, "Human Factors Engineering Program Plan," Section 4.1 will be revised as indicated on the attached markup.

4. IMPLEMENTATION

4.1 Assumptions and Constraints

TS

4.2 Program Duration

TS

4.3 Human Factors Engineering Design Team and Organization

TS

4.3.1 Human Factors Engineering Design Team Responsibilities

TS