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## 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.: 352-8205  
SRP Section: 18 – Human Factors Engineering  
Application Section: 18.10  
Date of RAI Issue: 12/22/2015

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### **Question No. 18-82**

NUREG-0711, Criterion 11.4.4(2), states in part that “the applicant should conduct an evaluation to identify which HEDs to correct,” and that “HEDs the applicant should correct are those with direct safety consequences, namely, those that could adversely impact personnel performance such that the margin of plant safety may be reduced below an acceptable level. ...”

Evaluation: In both the Human Factors Engineering (HFE) Program Plan (PP) and the HFE Verification and Validation Implementation Plan (V&V IP) the applicant defines Priority 1, 2, & 3 Human Engineering Discrepancies (HED), but they are not completely the same. For Priority 1 HEDs, the PP in section 4.6.1.4 defines them as “...the margin of plant safety may be reduced below an acceptable level ...” The V&V IP, in section 4.5.9.2, defines them as “...the margin of plant safety is reduced to below an acceptable level.”

Action: Revise documents as necessary to correct this inconsistency.

### **Response**

The definition of HED priorities in Section 4.5.9.2 of the HF V&V IP will be revised to match those in Section 4.6.1.4 of the HFEPP, as indicated in the attachment associated with this response.

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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 Reports**

Technical Report APR1400-E-I-NR-14008-NP, Rev. 0, "Human Factors Verification and Validation Implementation Plan," Section 4.5.9.2 will be revised, as indicated in the attachment associated with this response.

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**4.5.9.1. Human Engineering Discrepancy Analysis**

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**4.5.9.2. Selection of HEDs to Correct**

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**4.5.9.3. HED Analysis and Development of Design Solutions**

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