Draft

Request for Additional Information No. 79 (898), Revision 0

9/12/2008

U. S. EPR Standard Design Certification
AREVA NP Inc.
Docket No. 52-020
SRP Section: 14.03.09 - Human Factors Engineering - Inspections, Tests, Analyses, and Acceptance Criteria
Application Section: FSAR Ch 14
COLP Branch

QUESTIONS

14.03.09-1

SRP Chapter 18 provides guidance for the NRC staff to use in determining whether an applicant has proposed an acceptable HFE design. The applicant's HFE program will be evaluated in accordance with the review criteria of SRP Chapter 18 and NUREG-0711, "Human Factors Engineering Program Review Model." As indicated in Chapter 18, the HFE program technical information for the DC or COL review may be based on a design and implementation process plan. Therefore, the DC or COL ITAAC may be based on a design and implementation process plan. For example, acceptance 14.3.9-5 March 2007criteria for the task analysis program element may be stated as "a report exists and concludes that function-based task analyses were conducted in conformance with the task analysis implementation plan and include the following functions . . ."

Evaluation: In general, the AREVA ITAAC for HFE (contained in FSAR Tier 1, Table 3.4-1),does not meet the above criterion of identifying that "a report exists and concludes…" AREVA has used an alternative, in most cases, "an output summary includes..." This may be an acceptable alternative but clarification and further explanation is needed as to what constitutes an "output summary."

14.03.09-2

AREVA did not provide implementation plans as part of its FSAR submittal (Rev 0). The AREVA ITAAC does not address either developing implementation plans or providing completed products that result from carrying out the implementation plans.

Please provide implementation plans for the elements of AREVA's Human Factors Engineering (HFE) Program.

Please provide completed products for HFE Program elements, if available. Of particular importance to the staff are those items that are identified in the Planning and Analysis phase described in NUREG-0711. These items contribute to the basis for HFE design and are fundamental to the staff's safety determination. If products are not available, please provide HFE ITAAC following current NRC ITAAC development guidance. Please also provide a COL action item indicating that the COL will provide a schedule for completing any items that are identified in FSAR as Design Acceptance Criteria (DAC).

14.03.09-3

SRP 14.3.9, acceptance criteria no. 4 states "the reviewer will verify that HFE-related ITAAC information is provided based on accepted HFE principles and program elements as discussed in SRP Chapter 18 and Incorporated into the plant's design."

Evaluation:
FSAR Tier 1, Table 3.4-1, Human Factors Engineering Inspections,Tests, Analyses, and Acceptance Criteria, item 2, p.3.4-4 states as a commitment that, "functional requirements are translated from the predecessor design engineering documentation." However, there is no commitment/ITAAC associated with first determining the acceptability of the process used to determine the functional requirements for the predecessor design which are directly related to the US EPR design. If a predecessor design is being used as basis for the US EPR, the predecessor design's functional requirements first must be determined acceptable.

Please explain how AREVA will credit its predecessor design functional requirements for the US EPR.

14.03.09-4

FSAR Tier 1, Table 3.4-1, Human Factors Engineering Inspections, Tests, Analyses, and Acceptance Criteria, item 4, p.3.4-5 states, " A task analysis is documented by validation of operating procedure guidelines containing HAs that the PRA found to be risk significant. From this commitment statement, it appears that the Task Analysis for the US EPR is limited to those tasks that are risk-important only. Please explain. Also, please explain what is meant by "operating procedure guidelines." Are these procedures or underlying technical basis-type documents?