

REQUEST FOR ADDITIONAL INFORMATION 421-3086 REVISION 1

7/6/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 18 - Human Factors Engineering

Application Section: Section 7 HSI design

QUESTIONS for Operating Licensing and Human Performance Branch (AP1000/EPR Projects) (COLP)

18-65

Requirement:

SRP 14.3.9: Tier 1 includes a Minimum Inventory of displays, controls, and alarms that are necessary to carry out the vendor's emergency procedure guidelines and critical actions identified from the applicant's PRA and task analysis of operator actions. (SECY-92-53 provides additional background information)

Evaluation:

Table 4.9-1(MUAP-07007) and Table 18.7-1(DCD) list displays and alarms associated with Minimum Inventory criteria. The tables also include displays and alarms for other operating conditions because they are used primarily to communicate the spatially dedicated, fixed position alarms and displays available on the large display panel. The tables are not consistent. Also, in DCD section 18.7.3.2 there is a statement that says the "HSI Design Technical Report" describes the Minimum Inventory. This technical report has not yet been submitted for the staff's review.

MUAP-07007 section 4.12d titled, "Minimum Inventory of HSI" indicates the design of the Minimum Inventory HSI is developed and evaluated through the HFE design process described in section 5.

Information Request:

The staff is confused as to how the concept of Minimum Inventory is being applied and requests clarification of the following points.

1. Table 4.9-1(MUAP) is different from Table 18.7-1(DCD) and both contain controls/alarms/displays extraneous to the staff's definition of minimum inventory. Neither would seem to be minimum inventory if the "HSI Design Technical Report" is going to contain the list. Where will the master Minimum Inventory list be located? Why are the two tables different?
2. The MUAP states that the normal HSI design process is being used with a focus on safety functions. Because the Normal HSI design process is substantially lacking in detail it is difficult to understand how Minimum inventory is identified. Please provide additional information on the process used to derive Minimum Inventory.