REQUEST FOR ADDITIONAL INFORMATION MUAP - 07007

04/27/2010

US-APWR TOPICAL REPORT

HFE Process and HSI System Design [MUAP-07007-P (R3)]

Mitsubishi Heavy Industries, Inc.

Docket No. 52-021

Human Factors Branch

4th round MHI US-APWR Topical Report MUAP-07007-P R3, "HSI System Description and HFE Process"

RAI Number	Question Summary	Full Text
18.0-95	Scope of operating plant upgrades	Section 5.0 of MUAP-07007 states that the applicability of the HFE design process to operating plants is dependent on the scope of the HSI upgrade. This implies that HSI upgrades could range from partial to full control room upgrades. From the public meeting discussion of 3/17/2010, the staff understands that the HSI system and process described in the MUAP was to be applied to full Control room upgrades. Question: Please confirm the scope statement is accurate as written or amend as necessary.
18.0-96	Interface between HSIs and MELTAC platform	Section 2.0 of MUAP-07007 states, "The HSI for the PSMS is built on the MELTAC platform, which is described in a separate Digital Platform Topical Report [MUAP-07005]. In addition, the MELTAC Platform is applied to portions of the HSI for the Plant Control and Monitoring System." Since Topical Reports MUAP-07005 – "Safety System Digital Platform – MELTAC" is not currently being reviewed for operating reactors (as is the case for MUAP-07004 "Safety I&C System Description and Design Process" and MUAP-07006 "Defense-in-Depth and Diversity" topical reports) please explain why the HSI HFE design can be implemented independently of the interface systems for operating plants that will not use the US-APWR interface systems. The

	staff specifically needs to understand how software used in the interface systems is (or is not)
	used within each HSI. For example, can the large screen display accept input from any digital
	control system? Is the software that configures the displays on the large screen display panel
	independent of the software described in the Topical Reports listed above? Is the logic used to
	communicate equipment and safety function status independent of the software described in the
	Topical Reports?