REQUEST FOR ADDITIONAL INFORMATION 515-3594 REVISION 1

1/11/2010

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 14.03.05 - Instrumentation and Controls - Inspections, Tests, Analyses, and Acceptance Criteria
Application Section: 2.5.2 Systems Required for Safe Shutdown

QUESTIONS for Instrumentation, Controls and Electrical Engineering 1 (AP1000/EPR Projects) (ICE1)

14.03.05-32

Address, in the US-APWR Tier 1 information, the adequacy of the ranges and rates of change with respect to the operator needs for control and monitoring. The lack of screen design and listing of variable range and rate means that this point cannot be assessed without this supporting design information.

10 CFR Part 52.47(b)(1) requires, in part, the proposed inspections, tests, analyses, and acceptance criteria that are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the acceptance criteria met, a facility that incorporates the design certification has been constructed and will be operated in conformity with the design certification, the provisions of the Act, and the Commission's rules and regulations. In Standard Review Plan 14.3, Section II, Instrumentation and Control Systems Review Checklist of Appendix C, Detailed Review Guidance, states that for verification of IEEE 603-1991 - *Section 4.4—the ITAAC should verify the analytical limit associated with each variable, the ranges (normal, abnormal and accident conditions), and the rates of change for these variables to be accommodated until proper completion of the protective action is ensured.* US-APWR Final Safety Analysis Report, Chapter 15 covers the analytical limits associated with the controlled variables. ITAAC for IEEE 603-1991 Section 4.4 was added as a result of Question 14.03.05-12.

Please revise this ITAAC to provide analysis of ranges and rates of change for monitored variables needed for operator control and monitoring and the design of screens.