

**REQUEST FOR ADDITIONAL INFORMATION 665-5220 REVISION 5**

11/22/2010

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 07-14 Branch Technical Position - Guidance on Software Reviews for Digital Computer-Based Instrumentation and Controls Systems  
Application Section: B.3.1.9

QUESTIONS for Instrumentation, Controls and Electrical Engineering 2 (ESBWR/ABWR Projects)  
(ICE2)

07-14 Branch Technical Position-42

Criterion III, Design Control, of 10 CFR 50, Appendix B, requires measures to ensure that applicable regulatory requirements and the design basis are correctly translated into specifications, drawings, procedures and instructions. Also, RG 1.173 specifies additional activities beyond those identified by IEEE Std 1074-1995, which it endorses, to ensure safety system development is consistent with defined system safety analyses.

The MELTAC Basic Software Safety Report, JEXU-1015-1009-P(R3), is found to not be the type of document described by this regulatory guidance, or staff guidance, for a software safety analysis. This is because it does not describe, per RG 1.173, the types of software safety analyses, by inputs, outputs or activity description, or how this analysis was done in each phase of the software development life cycle.

Also, this document does not describe the types of analyses performed as cited in NUREG/CR-6101 by BTP 7-14, Section B.3.1.9.

The safety analyses that were done for the MELTAC Basic Software should be explained in the commercial grade dedication report in each phase, with the differences to all staff guidance noted and adequately explained. Also, for future MELTAC Basic Software development activities, the software safety plan should adequately present the software safety analyses which will be done and how each attribute in staff guidance is met.

Therefore, this document should be retitled "Analysis of the MELTAC Basic Platform to Guidance of ISG-04" as ISG-04 is the only identified guidance within the document, which is not consistent with a software safety analysis, and will only be used by the staff for compliance to ISG-04.