## US-APWRRAIsPEm Resource

**From:** Ciocco, Jeff
**Sent:** Tuesday, August 14, 2012 5:59 AM
**To:** us-apwr-rai@mhi.co.jp; US-APWRRAIsPEm Resource
**Cc:** Chuang, Tze-Jer; Shams, Mohamed; Kallan, Paul; Snyder, Amy
**Subject:** US-APWR Design Certification Application RAI 954-6617 (19, Appendix A)
**Attachments:** US-APWR DC RAI 954 SEB1 6617.pdf

MHI,

The attachment contains the subject request for additional information (RAI). This RAI was sent to you in draft form. Your licensing review schedule assumes technically correct and complete responses within 30 days of receipt of RAIs.

Please submit your RAI response to the NRC Document Control Desk.

Thank you,

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# REQUEST FOR ADDITIONAL INFORMATION 954-954

Issue Date: 8/14/2012

Application Title: US-APWR Design Certification - Docket Number 52-021

Operating Company: Mitsubishi Heavy Industries

Docket No. 52-021

Review Section: 19 - Probabilistic Risk Assessment and Severe Accident Evaluation
Application Section: Appendix A

QUESTIONS

19-571

In US-APWR DCD Section 19A.2, “Scope of the Assessment,” the applicant stated that the analysis assessed shock-induced vibration effects on systems, structures, and components (SSCs) following an aircraft impact event. In addition, Section 19A.4.4, “Core Cooling Features,” the applicant identified the safety-related instrumentation and control (I&C) system described in Chapter 7 as key design features for assuring core cooling. However, the assessments under PCCV provided by the applicant in Section 19A.4.1 indicates that the safety-related components not affected by shock-induced vibrations only include the reactor pressure vessel, steam generators and reactor coolant loop piping. I&C systems are not specifically addressed under DCD 19A.4.1.

Since the I&C electronic components are vulnerable to shock-induced vibrations, the applicant is requested to confirm in the DCD that such an assessment has been performed on the I&C system in support of Core Cooling Features, such as RHR, emergency feedwater, component cooling, and gas turbine generator. The assessment should show that the Core Cooling Features and I&C support remain functional and are not negatively affected by the shock-induced vibrations following a reactor trip in response to an aircraft impact event.


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