

**REQUEST FOR ADDITIONAL INFORMATION 208-1574 REVISION 0**

2/25/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 03.09.02 - Dynamic Testing and Analysis of Systems Structures and Components  
Application Section: 3.9.2.6

QUESTIONS for Engineering Mechanics Branch 1 (AP1000/EPR Projects) (EMB1)

03.09.02-33

**RAI 3.9.2-70**

In compliance with the recommendations of RG 1.20, the applicant is clearly committed to performing correlations between the vibration tests and the analytical results and also to resolving any discrepancies that may arise.

The staff reviewed DCD Tier 2, Subsection 3.9.2.6, and found that the applicant did not provide information about the acceptance criteria for comparing the analytical and the measured results. The applicant is requested to discuss the acceptance criteria that will be used when comparing the results of the vibration tests with the analytical results. These may include acceptance criteria for load definitions (e.g. pressure measurement results), dynamic characteristics of the system (e.g. resonance frequencies and mode shapes, vibration response), stress analysis calculations (e.g. strain gages results), and acoustic response of the reactor and the steam generator environment. The staff needs this information to confirm that appropriate acceptance criteria are devised for the correlations of the vibration tests with the analytical results, and thereby assures conformance with GDC-1 and 4. Revise subsection 3.9.2.6 of the DCD to include additional details about the acceptance criteria which will be used when comparing the results of the vibration tests with the analytical results. If this information is given elsewhere in the DCD, refer to it in Subsection 3.9.2.6.