REQUEST FOR ADDITIONAL INFORMATION 259-2117 REVISION 1

3/4/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 03.12 - ASME Code Class 1, 2, and 3 Piping Systems and Piping Components and TheirAssociated Supports
Application Section: 3.12

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

03.12-1

Describe how the mass point spacing based on the formula in DCD 3.12.4.2 is able to capture the vibration mode associated with the cut-off frequency mode.

03.12-2

In DCD Section 3.12.5.10, the applicant states that the surge line is to monitor for the effect of thermal stratification during hot functional testing. The applicant is requested to clarify how the surge line monitoring activity during hot functional test (HFT) is able to represent heatup/cooldown operation. The applicant is also requested to demonstrate that HFT has the same heatup/cooldown rate and operation to represent RCS conditions during normal operation. In addition, the applicant is requested to describe how to track surge line monitoring activity since this activity is not listed as a COL information in DCD 3.12.7.

03.12-3

In DCD 3.12.6.11, the applicant states that all rigid supports have a cold condition gap of 1/16 inch all around the pipe surface in the restrained direction. The applicant is requested to explain how the pipe can be supported vertically during cold condition with a 1/16 inch all around gap between pipe surface and the support.

03.12-4

In DCD 3.12.5.11, the applicant described the USAPWR safety relief valve design. SRP subsection 3.9.3.II provides the guidance on acceptance criteria for the safety relief valve design, states that the SAR should also include a description of the calculation procedure, computer programs, and other methods to be used in the analysis. The applicant is requested to provide a description of the calculation procedure, and computer programs used for designing the USAPWR safety relief valve.