

REQUEST FOR ADDITIONAL INFORMATION 723-5382 REVISION 2

3/21/2011

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 03.02.01 - Seismic Classification

Application Section: 3.2.1

QUESTIONS for Engineering Mechanics Branch 2 (ESBWR/ABWR Projects) (EMB2)

03.02.01-21

The response to RAI 287-2041, Question 03.02.01-14 stated that reactor vessel internals were inadvertently omitted from Table 3.2-2 in Revision 1 of DCD Tier 2 and MHI will revise Table 3.2-2 to include reactor internals, the reactor coolant system insulation, and other SSCs not specifically mentioned in Table 3.2-2 of Revision 1. DCD Revision 2 includes missing SSCs identified by MHI. However, staff is concerned that other SSCs, such as the RPV refueling cavity seal, is not specifically seismically classified in DCD Table 3.2-2 and, therefore, the scope of SSCs included in DCD Table 3.2-2 still may not be complete. The seismic classification and other design issues associated with the refueling cavity seal is addressed in RAI 633-4857 and is unresolved. RG 1.29 identifies that systems, other than radioactive waste management systems, that contain or may contain radioactive material are designated as Seismic Category I if their failure could result in doses exceeding 0.5 rem (0.005 Sievert). Further, RG 1.13 specifically identifies that the spent storage facility, including all structures and equipment necessary to maintain minimum water levels necessary for radiation shielding should be designed to Seismic Category I requirements. DCD Table 1.9.1-1 identifies conformance with no exceptions to RG 1.29 and 1.13. DCD Section 9.1.3 also identifies that the SFPCS cooling portions are safety-related, seismic category I and the SFPCS conforms to the guidelines of RG 1.13. The applicant is requested to further review the entire scope of SSCs that are not site-specific and include any missing items in Table 3.2-2 such as the refueling seal or otherwise explain where the refueling seal is seismically classified.

References:

MHI's Response to US-APWR DCD RAI No. 287-2041 (60-day response); MHI Ref: UAP-HF-09244; dated May 21, 2009; ML091480481.

MHI's Response to US-APWR DCD RAI No. 633-4857; MHI Ref: UAP-HF-10286; dated October 21, 2010; ML102990196.