

REQUEST FOR ADDITIONAL INFORMATION 291-2301 REVISION 0

3/26/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 05.02.01.02 - Applicable Code Cases

Application Section: 5.2.1.2

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

05.02.01.02-4

US-APWR DCD Tier 2, Section 5.3.2.1, "Limit Curves" states that, "The methods outlined in ASME Code Section XI Appendix G, including defect sizes and safety factors, are applied in the analyses for protection against non-ductile failure. ASME Code Section XI Appendix G is applied rather than ASME Code Section III Appendix G, as it is referenced by 10 CFR 50 Appendix G (Ref. 5.3-6) and also incorporates several ASME code cases including N-588, N-640 and N-641." MHI is requested to list these code cases in Table 5.2.1-2. In addition, Mitsubishi is also requested to discuss how the use of these code cases is acceptable in US-APWR design.

05.02.01.02-5

US-APWR DCD Tier 2, Section 5.2.1.2 states that, "The Combined License (COL) applicant addresses the addition of ASME Code Cases that are approved {by NRC} in Regulatory Guide 1.84 {Design, Fabrication, and Materials Code Case Acceptability, ASME Section III}." It also states that, "The {COL} applicant addresses ASME Code Cases that are approved in Regulatory Guide 1.147 "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," and 1.192 "Operation and Maintenance Code Case Acceptability, ASME OM Code."

The COL items are provided in Section 5.2.6 and Table 1.8-2 "Compilation of All Combined License Applicant Items for Chapters 1-19" as COL 5.2(1), COL 5.2(2) and COL 5.2(3). Mitsubishi is requested to list all the ASME Section III, Section XI and OM Code Cases that were used or will be used (for instance, Code Cases N-284-2, N-759-2, N-729-1) for US-APWR component design certification. Explain how the COL applicant shall provide justification for using the code cases identified in the COL application other than those listed in Table 5.2.1-2.