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**RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION**

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1/31/2013

**US-APWR Design Certification**

**Mitsubishi Heavy Industries**

**Docket No. 52-021**

**RAI NO.:** NO. 213-1951 REVISION 1  
**SRP SECTION:** 03.07.03 – Seismic Subsystem Analysis  
**APPLICATION SECTION:** 3.7.3  
**DATE OF RAI ISSUE:** 02/25/09

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**QUESTION NO. RAI 03.07.03-01 (03.07.03-05):**

In Section 3.7.3.1.5 of the DCD, a methodology for response spectrum broadening and smoothing is discussed. Clarify and discuss what is meant by 'filling in the valleys between all peaks' and how it is accomplished and describe the methodology used for peak broadening.

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**ANSWER:**

This answer revises and replaces the previous MHI answer that was transmitted by letter UAP-HF 09114 (ML090910119).

The phrase, 'filling in the valleys between all peaks,' has been removed from the DCD. Subsection 3.7.3.1.5 now directs the reviewer to Subsection 3.7.2.5, which provides more detail on the development of in-structure response spectra (ISRS). The method for response spectra smoothing and broadening is in accordance with RG 1.122. If there are "valleys" in the plotted results of the enveloping response spectra, the valleys are conservatively eliminated. The methodology for filling the valleys is described in MUAP-10006, Rev. 3, Section 03.3.6.

**Impact on DCD**

There is no impact on the DCD.

**Impact on R-COLA**

There is no impact on the R-COLA.

**Impact on S-COLA**

There is no impact on the S-COLA.

**Impact on PRA**

There is no impact on the PRA.

**Impact on Technical/Topical Report**

There is no impact on a Technical/Topical Report.

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This completes MHI's response to the NRC's question.