

**Jeff Ciocco**

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**From:** Jeff Ciocco  
**Sent:** Thursday, August 21, 2008 6:42 AM  
**To:** us-apwr-rai@mhi.co.jp  
**Cc:** Laurel Bauer; Rebecca Karas; William Ward; Larry Burkhart  
**Subject:** US-APWR Design Certification Application RAI No.55-968  
**Attachments:** US-APWR DC RAI 55 RGS1 968.pdf

MHI,

Attached please find the subject request for additional information (RAI). This RAI was sent to you in draft form. The schedule we established for review of your application assumes technically correct and complete responses within 30 days of receipt of RAIs. Please submit your RAI response to the NRC Document Control Desk.

Thanks,

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**REQUEST FOR ADDITIONAL INFORMATION NO. 55-968 REVISION 0**

8/21/2008

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 03.07.04 - Seismic Instrumentation

Application Section: 3.7.4

RGS1 Branch

**QUESTIONS**

03.07.04-1

RG 1.12 states that the battery should be of sufficient capacity to power the instrumentation to sense and record 25 minutes of motion over a period of not less than the channel check test interval. RG 1.12 further states that this can be accomplished by providing enough battery capacity for a minimum of 25 minutes of system operation at any time over a 24-hour period, without recharging, in combination with a battery charger whose line power is connected to an uninterruptable power supply or a line source that is checked at least every 24 hours.

Section 3.7.4.2.3 of the DCD states that the seismic monitoring instrumentation system is to be equipped with dedicated back-up batteries and charger in case of power outage or power failure. However, the battery charging capabilities are not described. Please provide additional information regarding the instrumentation battery charger.

03.07.04-2

Regulatory Position 4.1.1 of RG 1.166 states that the OBE response spectrum check is performed using the lower of: 1) The spectrum used in the certified standard design, or; 2) A spectrum other than (1) used in the design of any Seismic Category I structure.

Section 3.7.4.1 of the DCD states that the OBE is exceeded if all three of following three conditions are met: 1) Any calculation of CAV yields a value that is greater than 0.16 g-second; (2) Ground motion ARS is higher than 0.2 g at frequencies between 2 and 10 Hz; and 3) Ground motion velocity response spectra is higher than 6 in./sec at frequencies between 1 and 2 Hz. However, the applicant does not address how OBE exceedance would be determined in the case of (2) of Regulatory Position 4.1.1 of RG 1.166. Please describe how COL applicants would determine OBE exceedance if a spectrum, other than the spectrum used in the certified standard design, is used in the design of a Seismic Category I structure and is lower than the certified standard design response spectrum.