

US-APWRRRAIsPEm Resource

From: Ciocco, Jeff
Sent: Monday, July 16, 2012 8:11 AM
To: us-apwr-rai@mhi.co.jp; US-APWRRRAIsPEm Resource
Cc: Jain, Bhagwat; Shams, Mohamed; Galvin, Dennis; Snyder, Amy; Hamzehee, Hossein
Subject: US-APWR Design Certification Application RAI 950-6575 (3.7.3)
Attachments: US-APWR DC RAI 950 SEB1 6575.pdf; image001.jpg

MHI,

The attachment contains the subject request for additional information (RAI). This RAI was sent to you in draft form. Your licensing review schedule assumes technically correct and complete responses within 30 days of receipt of RAIs. However, MHI requests, and we grant, 60 days to respond to this RAI. The schedule will be adjusted accordingly.

Please submit your RAI response to the NRC Document Control Desk.

Thank you,

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MESSAGE	605	7/16/2012 8:10:45 AM
US-APWR DC RAI 950 SEB1 6575.pdf	60377	
image001.jpg	3989	

Options

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Request for Additional Information 950-6575

Issue Date: 7/16/2012

Application Title: US-APWR Design Certification - Docket Number 52-021

Operating Company: Mitsubishi Heavy Industries

Docket No. 52-021

Review Section: 03.07.03 - Seismic Subsystem Analysis

Application Section: 3.7.3

QUESTIONS

03.07.03-12

In US-APWR DCD (R3) Section 3.7.5, Combined License Information, it is stated in COLA Item 23 that, "The COL Applicant is to verify that the results of the site-specific SSI analysis for the broadened ISRS and basement walls lateral soil pressures are enveloped by the US-APWR standard design." The staff notes that the criteria for evaluating whether COLA Item 23 is satisfied are not provided.

Therefore, the staff requests MHI to describe the quantitative evaluation criteria that a COL applicant would use to demonstrate satisfaction of COLA Item 23, and also identify specific locations at which comparison of site-specific ISRS will be made with the US-APWR standard design ISRS. The locations identified for ISRS comparisons should include peripheral locations to detect rocking and torsion, locations that experience the largest amplification of the ground motion, and locations of key systems and equipments. The criteria should include detailed specific steps that may be taken (e.g., additional analyses to demonstrate the acceptability of the design if the responses are not enveloped) by the COL applicant. The US-APWR standard design applicant is requested to provide the detailed evaluation criteria for all potential scenarios including the following.

- (1) A hard rock high frequency (HRHF) site, where the site-specific GMRS exceeds the CSDRS in the high frequency range;
- (2) A site where the site-specific GMRS exceeds the CSDRS in the low and /or in mid-frequency range;
- (3) A site where the site-specific GMRS is enveloped by the CSDRS, but the site-specific soil conditions are not enveloped by the generic soil profiles.

