
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

02/27/2013

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

RAI NO.: NO. 94-1491 REVISION 1
SRP SECTION: 02.05.04 – Stability of Subsurface Materials and Foundations
APPLICATION SECTION: 2.5.4
DATE OF RAI ISSUE: 11/06/2008

QUESTION NO. 02.05.04-02:

Please provide site uniformity requirements for the foundation support media and how an applicant should address potential variability within the site subsurface media.

ANSWER:

This answer revises and replaces the previous MHI answer that was transmitted by letter UAP-HF-08272 (ML083430037).

As discussed in DCD Subsection 3.7.1.3, the seismic design of the US-APWR considers the use of six layered small strain generic profiles covering the range of soft soil to firm rock as specifically identified in DCD Table 3.7.1-6. These generic layered profiles capture a range of Soil-Structure Interaction (SSI) responses at prospective candidate sites. The generic layered profiles are documented in detail in Technical Report MUAP-10006, Rev. 3, Sections 01.3.2, 01.4.2, and 01.5.2. It is the responsibility of COL Applicant to perform site-specific SSI analyses as described in DCD Subsection 3.7.2.4.5 and specified as COL 3.7(25), to verify that site-specific variations from the generic layered profiles are enveloped by the Reactor Building (R/B) complex standard plant design.

Site-specific analyses are performed using the SSI analysis program SASSI as required by COL 3.7(25) to confirm that site-specific effects are enveloped by the standard design.

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 a Technical/Topical Report

There is no impact on a technical/topical report

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