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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. 852-6003 REVISION 3  
**SRP SECTION:** 03.07.02 – Seismic System Analysis  
**APPLICATION SECTION:** 3.7.2  
**DATE OF RAI ISSUE:** 10/24/11

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#### QUESTION NO. RAI 03.07.02-122:

In Section 5.3 of MUAP-10001(R3), "Development of the R/B Complex Dynamic FE Model," the first sentence (Page 5-80) states: "Built using the ANSYS preprocessor, the R/B Complex Dynamic FE model is an integrated 3-D model of the R/B-FH/A, PCCV and CIS structures resting on top of a common 9'-11" thick basemat."

The 9'-11" thick basemat is much thicker (38'-2") in its central region. The applicant is requested to describe how the thicker portions of the basemat in the R/B Complex Dynamic Model are implemented. If the thicker portions of the basemat are not modeled, the applicant is requested to provide the technical basis and justification for ignoring these thicker portions of the basemat in the R/B Complex Dynamic Model.

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#### ANSWER:

Technical Report MUAP-10001, Rev. 3 has been superseded and its relevant information has been incorporated into Technical Report MUAP-10006, Rev. 3. Information from Section 5.3 of MUAP-10001, Rev. 3 is now presented in Section 02.5.1.1 of MUAP-10006 Rev. 3. The cited sentence has been revised to state:

"Developed using the ANSYS preprocessor, the reactor building (R/B) complex Dynamic finite element (FE) model is an integrated 3-D model of the R/B-FH/A, prestressed concrete containment vessel (PCCV), CIS, East and West PS/B, A/B, and ESWPC structures sharing common shear walls and resting on top of a common 13'-4" to 43'-3" thick basemat."

The thicker portions of the mat are implemented in the dynamic model using solid elements. This can be seen in Figures 02.5.1.1-2 and 02.5.1.1-3 of Technical Report MUAP-10006 Rev. 3.

#### 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 the Technical/Topical Report.

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