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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. 212-1950 REVISION 1  
**SRP SECTION:** 03.07.02 – Seismic System Analysis  
**APPLICATION SECTION:** 3.7.2  
**DATE OF RAI ISSUE:** 02/25/09

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**QUESTION NO. RAI 03.07.02-01 (03.07.02-07):**

Section 3.7.2.8 of DCD indicates that structure-to-structure interaction effects will be further addressed if warranted by specific site conditions. Describe the methodology and acceptance criteria that will be used to determine if structure-to-structure interaction analysis is required and how the analysis will be performed if required.

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**ANSWER:**

This answer revises and replaces the previous MHI answer that was transmitted by Letter UAP-HF-09113 (ML090930727).

Structure-soil-structure interaction effects of the turbine building (T/B) on the reactor building (R/B) are now included in the soil-structure interaction (SSI) analyses and design of the standard plant. All seismic category I structures of the standard plant are part of the R/B complex. The seismic design of these structures is based on the enveloped SSI and structure-soil-structure interaction (SSSI) responses. DCD Subsection 3.7.2.4 and Technical Report MUAP-10006, Rev. 3, Sections 03.3.0 and 03.4.0, provide the SSSI methodology and SSSI analyses results.

In accordance with COL Item 3.7(10), it is the responsibility of the COL Applicant to address the potential SSSI effect of the R/B complex and T/B on the site-specific seismic category I structures. The methodology applied for the evaluation of the site-specific SSSI effects depends on the seismological and geotechnical characteristics of the site, and the configuration of the plant relative to site-specific structures. The results obtained from standard plant SSSI analyses, which apply to a wide variety of sites, can serve as a basis for the site-specific evaluation. The methodology used for standard plant SSSI analyses can serve as a guideline for any site-specific SSSI analyses needed to perform the evaluations.

**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.