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**RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION**

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**02/27/2013**

**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:** 02/25/2009

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**QUESTION NO. 03.07.02-01 (03.07.02-25):**

Provide a list of the buildings and structures that will be analyzed for site-specific soil-structure interaction effects and indicate the method of SSI analysis for each –finite element or impedance approach.

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**ANSWER:**

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

The following table represents a summary of the site-specific Soil-Structure Interaction (SSI) methods described in DCD, Tier 2, Section 3.7.2.4.5. US-APWR seismic category I and II buildings and structures are analyzed for site-specific SSI effects by COL Applicants where identified below, with the method of SSI analysis as noted.

<b>Building/Structure and Seismic Classification</b>	<b>Method of Site-Specific SSI Analysis/Remarks</b>	<b>Basis for Response</b>
Seismic Category I Reactor Building Complex	SASSI Finite Element	DCD Tier 2 Subsection 3.7.2.4.5 and COL Item 3.7(25)
Seismic Category I Essential Service Water Pipe Tunnel (ESWPT)	SASSI Finite Element	DCD Tier 2 Subsection 3.7.2.4.5 and COL Items 3.7(26) & 3.7(10)
Seismic Category I Power Source Fuel Storage Vaults (PSFSVs)	SASSI Finite Element	DCD Tier 2 Section 3.7.2.4.5 & COL Items 3.7(26) & 3.7(10)
Seismic Category I Ultimate Heat Sink Related Structures (UHSRS)	SASSI Finite Element	DCD Tier 2 Section 3.7.2.4.5 & COL Items 3.7(26) & 3.7(10)

<b>Building/Structure and Seismic Classification</b>	<b>Method of Site-Specific SSI Analysis/Remarks</b>	<b>Basis for Response</b>
Seismic Category II Turbine Building	No site-specific SSI is required unless the COL Applicant determines that it is necessary based on site-specific layout and conditions.	DCD Tier 2 Section 3.7 & COL Items 3.7(2), 3.7(6) and 3.7(10)

#### **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.