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July 27, 2012

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Attention: Mr. Jeffrey A. Ciocco

Docket No. 52-021
MHI Ref: UAP-HF-12209

Subject: **MHI's Response to US-APWR DCD RAI No. 684-5294 Revision 2 (SRP Section 03.02.01)**

Reference: 1) "REQUEST FOR ADDITIONAL INFORMATION 684-5294 REVISION 2" dated on January 20, 2011

With this letter, Mitsubishi Heavy Industries, Ltd. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") a document entitled "Response to Request for Additional Information No. 684-5294 Revision 2".

In the enclosed document, MHI provides responses to Questions 03.02.01-19 and Question 03.02.01-20 that are contained within Reference 1.

Please contact Mr. Joseph Tapia, General Manager of Licensing Department, Mitsubishi Nuclear Energy Systems, Inc. if the NRC has questions concerning any aspect of the submittals. His contact information is below.

Sincerely,

Y. Ogata

Yoshiki Ogata,
Director - APWR Promoting Department
Mitsubishi Heavy Industries, LTD.

Enclosure:

1. Response to Request for Additional Information No. 684-5294 Revision 2

D081
NRO

CC: J. A. Ciocco
J. Tapia

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Enclosure 1

UAP-HF- 12209
Docket No.52-021

Response to Request for Additional Information No. 684-5294
Revision 2

July 2012

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

7/27/2012

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

RAI NO.:	**NO. 684-5294 REVISION 2**
SRP SECTION:	**03.02.01 – SEISMIC CLASSIFICATION**
APPLICATION SECTION:	**3.2.1**
DATE OF RAI ISSUE:	**1/20/2011**

QUESTION NO.: 03.02.01-19:

Since the response to RAI 03.02.01-15 does not adequately address the application of the terms of safety-related compared to important to safety in order to satisfy GDC 2, additional information is needed. Specifically clarify if the SSCs in Table 17.4-1 for seismic event (SM) in the column "Rationale" combined with other seismic Category II SSCs represent the complete list of non-safety-related or risk significant SSCs that are important to safety and designed to withstand earthquakes consistent with GDC 2. In addition, the applicant is again requested to replace the term "safety related" with the term "important to safety" for clarity in complying with GDC 2.

ANSWER:

DCD Subsection 3.1.1.2.1 is revised by the response to RAI 667-5235, Question 3.2.2-17, to clearly state that nonsafety-related SSCs that must maintain their structural integrity to prevent unacceptable structural interaction or failure of seismic category I SSCs are designated as seismic category II and appropriately designed as described in Subsection 3.2.1, and that the non-safety-related SSCs in the radwaste system are designed to be consistent with Regulatory Guide (RG) 1.143 which is used as guidance relative to seismic qualification requirements and compliance with 10 CFR 50 Appendix A GDC-2. DCD Subection 3.1.1.1.1 is also revised by the response to RAI 667-5235, Question 3.2.2-17, to more clearly explain the process of applying quality assurance requirements to SSCs including the application of quality assurance requirements to nonsafety-related SSCs. This completes the description of the applicability of 10 CFR 50 Appendix A GDC-2 to include the applicable SSCs that are important to safety including the nonsafety-related SSCs that are required to be classified as seismic category II. The response to RAI 667-5235, Question 3.2.2-17, describes changes to DCD Section 3.2 in regards to the appropriate use of the terms "safety related" and "important to safety."

Impact on DCD

The DCD will be revised as noted above.

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 Topical Report / Technical Report

There is no impact on the Topical Report / Technical Report.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

7/27/2012

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

RAI NO.:	**NO. 684-5294 REVISION 2**
SRP SECTION:	**03.02.01 – SEISMIC CLASSIFICATION**
APPLICATION SECTION:	**3.2.1**
DATE OF RAI ISSUE:	**1/20/2011**

QUESTION NO.: 03.02.01-20:

The responses to 3.2.1 RAIs concerning ITAAC are not complete. Table 2.4 in Chapter 2 of the Tier 1 DCD, provides the required ITAAC information to address the interaction between structures, but it is not evident that ITAAC are included for all systems interactions. The applicant should demonstrate that ITAAC for a systems interaction review are sufficiently comprehensive of all Seismic Category II and NS SSCs and, if needed, reference a COL item for a systems interaction review, such as in DCD Section 3.7, and provide the information as defined in SRP 14.3.2. Clarify if there is an ITAAC for non-safety-related, but important to safety SSCs and specifically provide the information defined in SRP 14.3.2. As appropriate, include a similar ITAAC to the one included for structures and a COL item if needed for the interaction between systems and components.

ANSWER:

As described in the response to DCD RAI 667-5294 Question 3.2.2-18, DCD Tier 1 Table 2.2-4 ITAAC #23.a and #23.b verify that non-seismic Category I SSCs do not interact with seismic Category I SSCs in a way that could prevent the seismic Category I SSCs from performing their design basis safety function.

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 Topical Report / Technical Report

There is no impact on the Topical Report / Technical Report.