MITSUBISHI HEAVY INDUSTRIES, LTD.
16-5, KONAN 2-CHOME, MINATO-KU
TOKYO, JAPAN

July 27, 2010

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

Attention: Mr. Jeffery A. Ciocco

Docket No. 52-021
MHI Ref: UAP-HF-10217

Subject: MHI's Response to US-APWR DCD RAI No. 603-4666

Reference: 1) "Request for Additional Information No. 603-4666 Revision 2, SRP Section: 03.07.02 - Seismic System Analysis," dated 6/25/2010.

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. 603-4666, Revision 2."

Enclosed is the response to question 03.07.02-9 of the RAI contained within Reference 1. Response to question 03.07.02-10 of this RAI has a 60-day response time as agreed to between the NRC and MHI. The responses for this remaining question will be issued at a later date by a separate transmittal.

Please contact Dr. C. Keith Paulson, Senior Technical Manager, Mitsubishi Nuclear Energy Systems, Inc. if the NRC has questions concerning any aspect of this submittal. His contact information is provided below.

Sincerely,

Y. Ogata

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

Enclosure:

1. Response to Request for Additional Information No. 603-4666, Revision 2

D081
NRO

CC: J. A. Ciocco
C. K. Paulson

Contact Information
C. Keith Paulson, Senior Technical Manager
Mitsubishi Nuclear Energy Systems, Inc.
300 Oxford Drive, Suite 301
Monroeville, PA 15146
E-mail: ck_paulson@mnes-us.com
Telephone: (412) 373-6466

Enclosure 1

UAP-HF-10217
Docket No. 52-021

Response to Request for Additional Information No. 603-4666, Revision 2

July, 2010

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

7/27/2010

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

RAI NO.:	**NO. 603-4666 REVISION 2**
SRP SECTION:	**03.07.02 - Seismic System Analysis**
APPLICATION SECTION:	**3.7.2**
DATE OF RAI ISSUE:	**06/25/2010**

QUESTION NO. 03.07.02-9:

In RAI 495-3980, question 03.07.02-3, the staff asked when the structural reports for the T/B, A/B, and AC/B will be available for review. In response, MHI stated their commitment to comply with the guidelines of SRP 3.7.2 for non-Seismic Category I structures, but also stated that detailed design reports for the non-Seismic Category I structures are outside the scope of the SRP acceptance criteria 3.7.2.11.8 and will be ready for NRC audit prior to start of construction of the non-Category I structures.

The staff does not accept MHI's response. Per SRP 3.7.2.I.8, and 3.7.2.II.8, staff is required to review the seismic design criteria for the design of seismic category I and seismic non-category I structures that are part of the US-APWR standard plant. In order to complete its review of the seismic design of Category I structures, the staff needs to review design criteria for the non-Seismic Category I structures to account for their interaction with Category I SSCs.

When will the structural reports for the T/B, A/B, and AC/B, be made available to the staff?

(Related RAIs 3.7.2-6, 3.7.2-16, and 03.07.02-3 {Q 30})

References:

MHI's Responses to US-APWR DCD RAI No. 212-0950; UAP-HF-09188; dated May 7, 2009; ML091320443.
MHI's Responses to US-APWR DCD RAI No. 495-3980; UAP-HF-10029; dated February 2, 2010; ML100360838.

[SEB question 36]

ANSWER:

MHI understands the design of non-seismic Category I structures is a seismic Category II over Category I issue. As stated in Section 3.7.2.8 of the DCD, seismic Category II structures are analyzed to verify that the structures will not collapse or adversely interfere with seismic Category

I SSCs or adversely affect the main control room (MCR) occupants. NS structures have been located such that, in case of their collapse or failure, they do not have the potential to impact seismic Category I SSCs, either directly or indirectly. However, it has been noted by NRC staff that they need to review non-seismic Category I structure information in Phase II of the NRC's safety review, which is not supported by MHI's intent to provide the structural reports for the T/B, A/B, and AC/B prior to the start of construction.

Therefore, MHI agrees to provide the structural reports for the T/B, A/B, and AC/B by the end of December, 2010. The structural reports for the seismic Category II A/B and T/B buildings will document the seismic analyses using soil-structure interaction (SSI) to demonstrate these structures will not adversely influence the demands on seismic Category I SSCs (structure-soil structure-interaction and structure-to-structure interaction). The structural report of the non-seismic category AC/B will reflect the seismic analysis complies with the requirements of the international building code (IBC).

Impact on DCD

There is no impact on the DCD.

Impact on COLA

There is no impact on the COLA.

Impact on PRA

There is no impact on the PRA.

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