MITSUBISHI HEAVY INDUSTRIES, LTD.
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TOKYO, JAPAN

December 16, 2009

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-09562

Subject: MHI's Responses to US-APWR DCD RAI No. 499-4060 Revision 0

Reference: 1) "Request for Additional Information No. 499-4060 Revision 0, SRP Section: 14.03.03 – Piping Systems and Components - Inspections, Tests, Analyses, and Acceptance Criteria, Application Section: Tier 1, Tier 2 Section 14.3.3" dated December 1, 2009.

With this letter, Mitsubishi Heavy Industries, Ltd. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") a document entitled "Responses to Request for Additional Information No. 499-4060 Revision 0."

Enclosed is the response to Question 14.03.03-23 that is contained within Reference 1.

Please contact Dr. C. Keith Paulson, Senior Technical Manager, 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,
General Manager- APWR Promoting Department
Mitsubishi Heavy Industries, LTD.

Enclosure:

1. Response to Request for Additional Information No. 499-4060 Revision 0

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

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Enclosure 1

UAP-HF-09562
Docket No. 52-021

Responses to Request for Additional Information No. 499-4060
Revision 0

December 2009

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

12/16/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

RAI NO.:	**NO. 499-4060 REVISION 0**
SRP SECTION:	**14.03.03- PIPING SYSTEMS AND COMPONENTS - Inspections, Tests, Analyses, and Acceptance Criteria**
APPLICATION SECTION:	**TIER 1, TIER 2 14.3.3**
DATE OF RAI ISSUE:	**12/01/2009**

QUESTION NO.: 14.03.03-23

In the response to RAI 404-3063, Question 14.03.03-18, MHI proposed ITAAC to have the following available: (a) design reports of representative Class 2 and 3 PSC, (b) design specifications of all Class 2 and 3 PSC, and (c) design reports of risk significant Class 2 and 3 PSC.

In Question 14.03.03-18 the staff indicated, that the ITAAC should be for all Class 2 and 3 PSC.

Provide modified ITAAC based on November 16, 2009 Public Meeting discussion to address inadequate response to RAI 404-3063, Question 14.03.03-18.

ANSWER:

MHI concurs with the NRC's recommendation and has revised ITAAC item 3 of Tier 1 Table 2.3-2 to address the ITAAC for all Class 2 and 3 PSC.

MHI plans to close this ITAAC and remove it through the DCD review process once satisfied per PSC DAC closure approach discussed in November 16, 2009 Public Meeting.

Impact on DCD

See attached mark-up of Tier 1 Table 2.3-2. This mark-up also addresses other changes proposed in November 16, 2009 Public Meeting.

Impact on COLA

There is no impact on the COLA.

Impact on PRA

There is no impact on the PRA.

Table 2.3-2 Piping Systems and Components Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 1 of 2)

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1.a The ASME Code Section III, Class 1 piping systems and components (PSC) are designed to retain their pressure integrity and functional capability under internal design and operating pressures and design basis loads.	1.a An inspection of the stress report for the ASME Code, Section III, Class 1 PSC will be performed.	1.a The stress report(s) exist and conclude that the design of the ASME Code Section III Class 1 PSC comply with the requirements of the ASME Code Section III.
1.b The usage factors for ASME Code Section III Class 1 ~~piping systems~~PSC are evaluated for both air and reactor coolant environments.	1.b An analysis of the ASME Code, Section III, Class 1 ~~piping systems~~PSC will be performed.	1.b Report(s) exist and conclude that the usage factors for ASME Code Section III Class 1 ~~piping systems~~PSC are evaluated for air and reactor coolant environments.
2. RCPB and MSS piping systems are designed in accordance with the LBB method.	2. A LBB analysis using the LBB method will be performed for each RCPB and MSS piping system.	2. The results of the LBB analysis conclude that the stress values conform to the LBB acceptance criteria using the LBB assumptions.
3. The ASME Code Section III, Class 2 and 3 piping systems and components (PSC) are designed to retain their pressure integrity and functional capability under internal design and operating pressures and design basis loads.	3.i An inspection of the stress report for the ~~risk-significant~~ ASME Code, Section III, Class 2 and 3 PSC will be performed.	3.i The stress report(s) exist and conclude that the design of the ~~risk-significant~~ ASME Code Section III Class 2 and 3 PSC comply with the requirements of ASME Code Section III.
	~~3.ii An inspection of the stress report for low risk ASME Code Section III, Class 2 and 3 PSC will be performed.~~	~~3.ii The stress report(s) exist and conclude that the design of low risk ASME Code Section III Class 2 and 3 PSC comply with the requirements of ASME Code Section III.~~

14.03.03-23