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TOKYO, JAPAN

April 24, 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-09205

Subject: MHI's Response to US-APWR DCD RAI No. 290-2303 REVISION 0

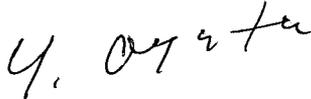
Reference: 1) "Request for Additional Information No. 290-2303 Revision 0, SRP Section: 05.02.01.01 – Compliance With the Codes and Standards Rule, 10 CFR 50.55a: Application Section 5.2.1.1" dated March 26, 2009.

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. 290-2303 Revision 0."

Enclosed is the response to the RAI 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,



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

Enclosure:

1. Response to Request for Additional Information No. 264-2062 Revision 0

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

Contact Information

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Docket No. 52-021
MHI Ref: UAP-HF-09205

Enclosure 1

UAP-HF-
Docket Number 52-021

Response to Request for Additional Information
No. 290-2303 Revision 0

April 2009

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

4/24/2009

**US-APWR Design Certification
Mitsubishi Heavy Industries
Docket No. 52-021**

RAI NO.: NO. 290 – 2303 REVISION 0
SRP SECTION: 05.02.01.01 – COMPLIANCE WITH THE CODES AND STANDARDS RULE 10CFR 50.55A
APPLICATION SECTION: 5.2.1.1
DATE OF RAI ISSUE: 3/26/2009

QUESTION NO.: RAI 05.02.01.01-2

USAPWR FSAR, Tier 2, Table 5.2.1-1 specifies the 2001 Edition with the 2003 Addenda of the ASME BPV Code applicable for the design of Class1 components such as Reactor Vessel (RV), Steam Generators (SG), Pressurizer, Control Rod Drive Mechanism (CRDM) housing, CRDM head adapter, Reactor Coolant Pumps (RCP), Valves, except for seismic design of piping. Note (1) of Table 5.2.1-1 indicated that 1992 Edition and 1992 Addenda of ASME Code Section III NB-3200, NB-3600, NC-3600 and ND-3600 will be used for the seismic design of USAPWR piping in accordance with the requirements of 10CFR50.55a (b)(1)(iii). Mitsubishi is requested to discuss how the use of the baseline code of the 2001 Edition with the 2003 Addenda of the ASME BPV Code and the use of the 1992 Edition and 1992 Addenda for piping will satisfy the requirements of 10CFR50.55a (b)(1)(ii).

ANSWER:

MHI confirms that we will stay fully compliant with the ASME Code requirements designated in 10 CFR 50.55a. The baseline Code of 2001 Edition with 2003 Addenda will be used as a Code of Record applicable for all components, except stress analysis for ASME Classes 1, 2 and 3 piping. The code criteria for stress analysis of the above mentioned piping systems will be based on 1992 Edition of ASME Code Section III through 1992 Addenda of Articles NB-3200, NB-3600, NC-3600 and ND-3600, however for analyzing fillet welds, B1 and B2 stress indices for ASME Class 1 and stress intensification factor (SIF) for ASME Classes 2 and 3 piping analyses, the 1989 Edition (no addenda) will be used.

Impact on DCD

The DCD Section 5.2, Table 5.2.1-1 Note (1) will be changed to be incorporated as follows:

(*): For seismic design, 1992 Edition including 1992 Addenda will be used for ASME Section III NB-3200, NB-3600, NC-3600, ND-3600 analyses, in accordance with the requirements of 10 CFR 50.55a (b) (1) (iii), except for analyzing fillet welds, B1 and B2 stress indices for ASME Class 1 piping analyses and stress intensification factor (SIF) for ASME Classes 2 and 3 piping analyses, will use the 1989 Edition of ASME B&PV Code Section III, Division 1, Subsections NB, NC and ND.

Impact on COLA

There is no impact on the COLA.

Impact on PRA

There is no impact on the PRA.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

4/24/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

RAI NO.: NO. 290 – 2303 REVISION 0
SRP SECTION: 05.02.01.01 – COMPLIANCE WITH THE CODES AND STANDARDS RULE 10CFR 50.55A
APPLICATION SECTION: 5.2.1.1
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QUESTION NO. : RAI 05.02.01.01-3

USAPWR Tier 2, Subsection 5.2.1.1, states that the use of Code editions and addenda issued and endorsed by the NRC subsequent to approval of the US-APWR DCD is permitted. Mitsubishi is requested to confirm that the baseline code of the 2001 Edition with the 2003 Addenda of the ASME BPV Code incorporating the 1992 Edition including 1992 Addenda for USAPWR piping seismic design are Tier 2* information that requires NRC approval for any proposed change. Also, discuss how the COL application will justify when applying ASME Code Edition and Addenda other than the code of record in USAPWR DCD stated above.

ANSWER

MHI confirms to remain compliant with the current 10 CFR 50.55a, ASME 2001 Edition with 2003 Addenda is used as the baseline code except for piping seismic design. The piping seismic design is to be performed in conformance with the ASME 1992 Edition through 1992 Addenda with the fillet weld factors to be used per the ASME 1989 Edition.

A COL applicant that references the US-APWR design certification may identify subsequent ASME Code editions or addenda if NRC revises 10 CFR 50.55a. When the COL applicant changes the code of record with concurrence from NRC, the consistency of the US-APWR design with construction practice reflected within the subsequent code editions and addenda identified in the COL application should be reconciled.

Impact on DCD

The second sentence of second paragraph of the DCD Subsection 5.2.1.1 will be changed as follows:

The use of Code editions and addenda issued and endorsed by the NRC subsequent to the design certification is permitted if such code updates are included in a revised 10 CFR 50.55a by the NRC.

Impact on COLA

There is no impact on the COLA.

Impact on PRA

There is no impact on the PRA.

This completes MHI's responses to the NRC's questions.