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TOKYO, JAPAN

July 26, 2011

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-11233

Subject: MHI's Response to US-APWR DCD RAI No. 770-5739 REVISION 0 (SRP 03.09.01)

Reference: 1) "Request for Additional Information EMB1 5739 Revision 3, SRP Section: 03.09.01 – Special Topics for Mechanical Components, Application Section: 03.09.01, dated June 15, 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. 770-5739 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,

Y. Ogata

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

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NRO

Enclosures:

1. Response to Request for Additional Information No. 770-5739 Revision 0

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

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Docket No. 52-021
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Enclosure 1

UAP-HF-11233
Docket Number 52-021

Response to Request for Additional Information
No. 770-5739 Revision 0

July 2011

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

07/26/2011

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

RAI NO.:	**NO. 770-5739**
SRP Section:	**03.09.01 – Special Topics for Mechanical Components**
DATE OF RAI ISSUE:	**06/15/2011**

QUESTION NO.: RAI 03.09.01.-6

This question is a supplement to question 3.9.1-2. The staff reviewed US- APWR technical reports providing summary stress analysis results (including MUAP-9004 through 9013, and MUAP-11003) submitted by MHI and found that there are computer codes that were used for the design of Seismic Category I piping, components and supports that are not listed and discussed in US-APWR DCD subsections 3.9.1.2, 3.12.4.1 or Appendix C. Computer codes are also listed in a Revised Completion Plan for US-APWR Piping Systems and Components submitted by Mitsubishi Heavy Industries, Ltd. (MHI), on May 12, 2011 (ML11136A234).

MHI is requested to include computer programs in DCD Section 3.9.1.2, "Computer Programs Used in Analyses," used in the analysis and design of US-APWR safety-related piping, components and supports in conformance with SRP Sections 3.9.1 and 3.12. The information should include program name, dated version and brief description of the program application. Since these programs were used for design of US-APWR Seismic Category I components, confirm whether these computer codes were previously reviewed and approved by the NRC staff. If yes, provide dates and versions of the program that was reviewed and approved by the staff, including the submitted dates and reference documents for acceptance. If not, MHI is requested to provide evidence of the computer code verification and validation documentation for design of the ASME Class 1, 2 and 3 components and piping in accordance with Appendix B to 10 CFR 50.55 or ASME code NQA-1 Code. Confirm that the documentation of these computer codes is available for staff review. The information should include the author, source code, dated version, and facility; the program users' manual and theoretical description, the extent and limitation of the program application; and the benchmarking problems, the QA control and maintenance of the program.

ANSWER:

MHI will provide additional information on Computer Codes, such as code verification and validation documents used for design of ASME Class 1, 2 and 3 components and piping in accordance with Appendix B to 10 CFR 50 and ASME Code NQA-1, at the NRC Audit in

August 2011. MHI is preparing the Computer Code information listed in Table–1 of MHI Letter UAP-HF-11135, dated May 12, 2011. However, the required detailed information for Computer Code "RELAP-5" has already been provided in MHI Topical Report MUAP-07013-P Revision 2, dated November 1, 2010, "Small Break LOCA Methodology for US-APWR" that was reviewed by NRC staff in audit on October 19-20, 2010.

Impact on DCD

DCD Subsection 3.9.1.2, "Computer Programs Used in Analyses" and 3.12.4.1, "Computer Codes" will be revised to include the Computer Codes from Table-1 of UAP-HF-11135 not previously included in these section and any other Codes deemed necessary as a results of the NRC Audit. Revised Mark-up DCD will be provided after Computer Code Audit on August 2011, that include program name, dated version and brief description of the program application in accordance with SRP Section 3.9.1, Subsection II.2.

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.
