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

June 29, 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-09353

**Subject: MHI's Response to US-APWR DCD RAI No. 393-2978**

**References:** 1) "Request for Additional Information No. 393-2978 Revision 1, SRP Section: 05.04.02 .02– Steam Generator Program Application Section: 5.4" dated June 15, 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. 393-2978 Revision 1".

Enclosure 1 provides the responses to the questions that are 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.
Enclosures:

1. Responses to Request for Additional Information No. Revision

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

D081
NRO

Contact Information
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Enclosure 1

UAP-HF-09353
Docket No. 52-021

Responses to Request for Additional Information No. 393-2978
Revision 1

June 2009

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

6/30/2009

**US-APWR Design Certification**

**Mitsubishi Heavy Industries**

**Docket No. 52-021**

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|---|---|
| **RAI NO.:** | **NO.393-2978 REVISION 1** |
| **SRP SECTION:** | **05.04.02.02 – STEAM GENERATOR PROGRAM** |
| **APPLICATION SECTION:** | **5.4** |
| **DATE OF RAI ISSUE:** | **6/15/2009** |

**QUESTION NO. : 05.04.02.02-9**

The response to RAI 05.04.02.02-8 (RAI 293-2173, dated March 30, 2009; MHI response dated April 17, 2009) described the size and shape of local degradation of steam generator tubes attributed to support structures (tube support plates and antivibration bars). For degradation at the tube support plates, the response stated that the length is 1.38 inches, which is equal to the plate thickness. Please also provide the circumferential extent of the degradation assumed in the analysis for the tube support
plate locations.

**ANSWER:**

The circumferential extent of the degradation is the fill circumference (360°) of the tube.

**Impact on DCD**

There is no impact on DCD.

**Impact on COLA**

There is no impact on COLA.

**Impact on PRA**

There is no impact on PRA.