



**MITSUBISHI HEAVY INDUSTRIES, LTD.**  
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TOKYO, JAPAN

March 31, 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-11090

**Subject: Revision 2 of the Technical Report MUAP-09008 "Summary of Stress Analysis Results for the US-APWR Reactor Coolant Pump"**

**Reference:**

1. UAP-HF-11034, Revision 1 of the Technical Report MUAP-09008-P "Summary of Stress Analysis Results for the US-APWR Reactor Coolant Pump"

With this letter, Mitsubishi Heavy Industries, Ltd. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") its technical report which provides a summary of the Stress Reports for the US-APWR Piping System and Components. The submittal is as follows:

- Revision 2 of the Technical Report MUAP-09008 "Summary of Stress Analysis Results for the US-APWR Reactor Coolant Pump", which was previously submitted in February 2011, as revision 1 (Reference 1)

This document has been revised to add evaluation results which reflect changes of evaluation method for environmental fatigue and the sophistication of methodology for building seismic analysis. The complete stress report for the reactor coolant pump will be available for audit in September, 2011.

As indicated in the enclosed materials, these documents contain information that MHI considers proprietary, and therefore should be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4) as trade secrets and commercial or financial information which is privileged or confidential. A non-proprietary version of each document is also being submitted in this package. In the non-proprietary version the proprietary information, bracketed in the proprietary version, is replaced by the designation "[ ]".

This letter includes a copy of the proprietary versions (Enclosure 2), a copy of the non-proprietary versions (Enclosure 3), and the Affidavit of Yoshiki Ogata (Enclosure 1) which identifies the reasons MHI respectfully request that all materials designated as "Proprietary" in Enclosure 2 be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4).

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

DOBI  
NBO

Sincerely,



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

Enclosures:

1. Affidavit of Yoshiki Ogata
2. CD 1: "MUAP-09008-P (R2) Summary of Stress Analysis Results for the US-APWR Reactor Coolant Pump"  
-Version containing proprietary information
3. CD 2: "MUAP-09008-NP (R2) Summary of Stress Analysis Results for the US-APWR Reactor Coolant Pump"  
-Version not containing proprietary information

The files contained in each CD are listed in Attachments 1 hereto.

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

Contact Information

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**ENCLOSURE 1**

**Docket No. 52-021  
MHI Ref: UAP-HF-11090**

**MITSUBISHI HEAVY INDUSTRIES, LTD.**

**AFFIDAVIT**

I, Yoshiki Ogata, state as follows:

1. I am General Manager, APWR Promoting Department, of Mitsubishi Heavy Industries, LTD ("MHI"), and have been delegated the function of reviewing MHI's US-APWR documentation to determine whether it contains information that should be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4) as trade secrets and commercial or financial information which is privileged or confidential.
2. In accordance with my responsibilities, I have reviewed the enclosed document entitled "Summary of Stress Analysis Results for the US-APWR Reactor Coolant Pump" dated March 2011 and have determined that portions of the document contain proprietary information that should be withheld from public disclosure. Those pages containing proprietary information are identified with the label "Proprietary" on the top of the page and the proprietary information has been bracketed with an open and closed bracket as shown here "[ ]". The first page of the document indicates that all information identified as "Proprietary" should be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4).
3. The information identified as proprietary in the enclosed document has in the past been, and will continue to be, held in confidence by MHI and its disclosure outside the company is limited to regulatory bodies, customers and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and is always subject to suitable measures to protect it from unauthorized use or disclosure.
4. The basis for holding the referenced information confidential is that it describes the unique design of the stress analysis results related to the US-APWR piping systems and components, developed by MHI and not used in the exact form by any of MHI's competitors. This information was developed at significant cost to MHI, since it required the performance of research and development and performance of detailed hardware design software development extending over several years.
5. The referenced information is being furnished to the Nuclear Regulatory Commission ("NRC") in confidence and solely for the purpose of information to the NRC staff.
6. The referenced information is not available in public sources and could not be gathered readily from other publicly available information. Other than through the provisions in paragraph 3 above, MHI knows of no way the information could be lawfully acquired by organizations or individuals outside of MHI.
7. Public disclosure of the referenced information would assist competitors of MHI and MELCO in their design of new nuclear power plants without incurring the costs or risks associated with the design and testing of the subject systems. Therefore, disclosure of the information contained in the referenced document would have the following negative impacts on the

competitive position of MHI in the U.S. nuclear plant market:

- A. Loss of competitive advantage due to the costs associated with development of the unique plant design of the stress analysis. Providing public access to such information permits competitors to duplicate or mimic reactor coolant pumps.
- B. Loss of competitive advantage of the US-APWR created by benefits of enhanced plant safety, and reduced operation and maintenance costs.

I declare under penalty of perjury that the foregoing affidavit and the matters stated therein are true and correct to the best of my knowledge, information and belief.

Executed on this 31st day of March, 2011.

A handwritten signature in black ink, appearing to read "Y. Ogata". The signature is written in a cursive, somewhat stylized font.

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

**ATTACHMENT 1**

**FILES CONTAINED IN CDs**

**CD 1:** "MUAP-09008-P (R2) Summary of Stress Analysis Results for the US-APWR Reactor Coolant Pump"

**-Version containing proprietary information**

Contents of CD

<u>File Name</u>	<u>Size</u>	<u>Sensitivity Level</u>
MUAP-09008-P(R2).pdf	7.0 MB	Proprietary

**CD 2:** "MUAP-09008-NP (R2) Summary of Stress Analysis Results for the US-APWR Reactor Coolant Pump"

**-Version not containing proprietary information**

Contents of CD

<u>File Name</u>	<u>Size</u>	<u>Sensitivity Level</u>
MUAP-09008-NP(R2).pdf	1.1 MB	Non-proprietary