



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

May 16, 2008

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-08089

**Subject: Response Package to NRC's Requests for Additional Information on Topical Report MUAP-07012-P(R0) LOCA Mass and Energy Release Analysis Code Applicability Report for US-APWR (Revision 1)**

**References:** 1) Letter MHI Ref: UAP-HF-08083 from Y. Ogata (MHI) to U.S. NRC, "Response Package to NRC's Requests for Additional Information on Topical Report MUAP-07012-P(R0) LOCA Mass and Energy Release Analysis Code Applicability Report for US-APWR" dated April 25, 2008.

With this letter, Mitsubishi Heavy Industries, Ltd. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") Revision 1 of the referenced document entitled "Response Package to NRC's Requests for Additional Information on Topical Report MUAP-07012-P(R0) LOCA Mass and Energy Release Analysis Code Applicability Report for US-APWR". In the enclosed document, MHI supplements response to the additional NRC questions related to the flow oscillation issue received on March 7, 2008 and March 12, 2008. The revised version of the Topical Report, MUAP-07012 "LOCA Mass and Energy Release Analysis Code Applicability Report for US-APWR", will be submitted by May 30, 2008.

As indicated in the enclosed materials, this document contains information that MHI considers proprietary, and therefore should be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4) and 10 C.F.R § 9.17 (a)(4) as trade secrets and commercial or financial information which is privileged or confidential. A non-proprietary version of the document is also being submitted in this package (Enclosure 3). 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 version (Enclosure 2), a copy of the non-proprietary version (Enclosure 3), and the Affidavit of Yoshiki Ogata (Enclosure 1) which identifies the reasons MHI respectfully requests that all materials designated as "Proprietary" in Enclosure 2 be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4) and 10 C.F.R. § 9.17 (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 submittals. His contact information is below.

Sincerely,

DOSI  
NRC



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

Enclosures:

1. Affidavit of Yoshiaki Ogata (non-proprietary)
2. Response Package to NRC's Requests for Additional Information on Topical Report MUAP-07012-P(R0) LOCA Mass and Energy Release Analysis Code Applicability Report for US-APWR (proprietary)
3. Response Package to NRC's Requests for Additional Information on Topical Report MUAP-07012-NP(R0) LOCA Mass and Energy Release Analysis Code Applicability Report for US-APWR (non-proprietary)

Attachment to Enclosure 2: CD 1 "US-APWR GOTHIC Input for the Double Ended Pump Suction Break". The files contained in the CD are listed in Attachment hereto.

CC: L J. Burkhart  
J. W. Chung  
S. R. Monarque  
C. K. Paulson

Contact Information

C. Keith Paulson, Senior Technical Manager  
Mitsubishi Nuclear Energy Systems, Inc.  
300 Oxford Drive, Suite 301  
Monroeville, PA 15146  
E-mail: ckpaulson@mnes-us.com  
Telephone: (412) 373-6466

**MITSUBISHI HEAVY INDUSTRIES, LTD.**

**AFFIDAVIT**

I, Yoshiki Ogata, state as follows:

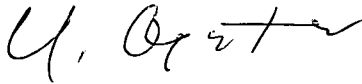
1. I am General Manager, APWR Promoting Department, of Mitsubishi Heavy Industries, LTD ("MHI"), and have been delegated the function of reviewing MHI's US-APWR documentation to determine whether it contains information that should be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4) and 10 C.F.R. § 9.17(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 "Response Package to NRC's Requests for Additional Information on Topical Report MUAP-07012-P(R0) LOCA Mass and Energy Release Analysis Code Applicability Report for US-APWR" dated May 2008, 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 safety analysis, 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 the performance of detailed hardware design and 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 in their design of new nuclear power plants without incurring the costs or risks associated with the design 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 safety analysis methodology. Providing public access to such information permits competitors to duplicate or mimic the methodology without incurring the associated costs.
- B. Loss of competitive advantage of the US-APWR created by benefits of enhanced plant safety, and reduced operation and maintenance costs associated with the safety analysis.

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 16th day of May, 2008.



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