TOKYO, JAPAN

May 30, 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-08098

Subject: Revision 2 of the Topical Report entitled "LOCA Mass and Energy Release

Analysis Code Applicability Report for US-APWR"

References: 1) Letter MHI Ref: UAP-HF-08089 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 (Revision 1)" dated May

16, 2008.

With this letter, Mitsubishi Heavy Industries, LTD. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") the revision 2 of the topical report entitled "LOCA Mass and Energy Release Analysis Code Applicability Report for US-APWR" which was previously submitted in July 2007 and revised in February 2008. MHI incorporates the responses submitted with Reference 1 into the enclosed document. The evaluation model to solve the flow oscillation issue raised with the additional NRC questions on March 7, 2008 and March 12, 2008 is also described in the enclosed document as committed in Reference 1.

The enclosed report contains information that MHI considers proprietary, and therefore the report should be withheld from 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. Accordingly, the Report is being submitted in two versions, in separate compact discs. One version (in CD 1) contains the complete proprietary version of the Report. A non-proprietary version of the Report is enclosed in CD 2. In the non-proprietary version, the proprietary information, bracketed in the proprietary version, is replaced by the designation "[]". In accordance with the NRC submittal procedures, this letter includes an Affidavit that identifies the reasons why the proprietary version of the Report should be withheld from 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,

Yoshiki Odata

General Manager- APWR Promoting Department

Mitsubishi Heavy Industries, LTD.

Enclosures:

- 1. Affidavit of Yoshiki Ogata
- 2. CD 1: "LOCA Mass and Energy Release Analysis Code Applicability for US-APWR Revision 2"
 - Version containing Proprietary information
- 3. CD 2: "LOCA Mass and Energy Release Analysis Code Applicability for US-APWR Revision 2"
 - Version not containing Proprietary information

The files contained in each CD are listed in Attachments 1 and 2 hereto.

CC: L J. Burkhart 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@aol.com Telephone: (412) 374 – 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 "LOCA Mass and Energy Release Analysis Code Applicability 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 30th day of May, 2008.

Yoshiki Ogata,

General Manager- APWR Promoting Department

Mitsubishi Heavy Industries, LTD.

ATTACHMENT 1

FILES CONTAINED IN CD 1

CD 1: "LOCA Mass and Energy Release Analysis Code Applicability for US-APWR Revision 2"

- Version containing Proprietary information

Contents of CD

File Name	<u>Size</u>	Sensitivity Level
001 LOCA Mass and Energy (Proprietary).pdf	21.4MB	Proprietary
002 1n-dc_rm-c9_cv.GTH	0.9MB	Proprietary
003 1n-dc_rm-c9_cv_input.pdf	0.3MB	Proprietary

ATTACHMENT 2

FILES CONTAINED IN CD 2

CD 2: "LOCA Mass and Energy Release Analysis Code Applicability for US-APWR Revision 2"

- Version non containing Proprietary information

Contents of CD

File NameSizeSensitivity Level001 LOCA Mass and Energy (Non-proprietary).pdf20.3MBNon-Proprietary