



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

November 30, 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-09529

**Subject: Resubmission of accepted version of the Topical Report entitled  
"Defense-in-Depth and Diversity"**

- References:**
- 1) Letter MHI Ref: UAP-HF-09469 from Y.Ogata (MHI) to U.S. NRC, Accepted version of the Topical Report entitled "Defense-in-Depth and Diversity" dated September 30, 2009.
  - 2) Letter ML092080259 from Hossein Hamzehee (U.S. NRC) to Y.Ogata (MHI), "SAFETY EVALUATION (PROPRIETARY AND NON-PROPRIETARY) REPORT FOR MITSUBISHI HEAVY INDUSTRIES, LTD. UNITED STATES – ADVANCED PRESSURIZED WATER REACTOR TOPICAL REPORT NUMBER MUAP-07006-P, REVISION 2, "DEFENSE-IN-DEPTH AND DIVERSITY" dated August 27, 2009.
  - 3) Letter MHI Ref: UAP-HF-08110 from Y.Ogata (MHI) to U.S. NRC, MHI Technical Report MUAP-07014 "Defense-in-Depth and Diversity Coping Analysis Revision 1" and MHI Topical Report MUAP-07006 "Defense-in-Depth and Diversity Revision 2" dated June 20, 2008.

With this letter, Mitsubishi Heavy Industries, LTD. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") the accepted version of Topical Report entitled "Defense-in-Depth and Diversity". MHI incorporates the safety evaluation report received with Reference 2 into the enclosed document submitted with Reference 3. It is noted that the proprietary information in the document which is previously submitted on September 2009 with Reference 1 is revised in the enclosed report.

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) 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).

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.

DD81  
NRD

Sincerely,



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

Enclosures:

1. Affidavit of Yoshiki Ogata
2. CD 1: Accepted version of "Defense-in-Depth and Diversity Revision 2"  
– Version containing Proprietary information
3. CD 2: Accepted version of "Defense-in-Depth and Diversity Revision 2"  
– Version not containing Proprietary information

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

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

Contact Information

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ENCLOSURE 1

Docket No. 52-021  
MHI Ref: UAP-HF-09529

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 "Defense-in-Depth and Diversity" dated September 2009, 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 Defense-in-Depth and Diversity ("D3") system 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 detailed design, calculations, analyses and testing 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 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 D3 system. Providing public access to such information permits competitors to duplicate or mimic the D3 system design 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 D3 system.

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 November, 2009.



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

**ATTACHMENT 1**

**FILES CONTAINED IN CD 1**

**CD 1: Accepted version of "Defense-in-Depth and Diversity Revision 2"  
– Version containing Proprietary information**

**Contents of CD**

<u>File Name</u>	<u>Size</u>	<u>Sensitivity Level</u>
001 MUAP-07006-P-A(R2).pdf	10.4MB	Proprietary

**ATTACHMENT 2**

**FILES CONTAINED IN CD 2**

**CD 2: Accepted version of "Defense-in-Depth and Diversity Revision 2"  
– Version non containing Proprietary information**

**Contents of CD**

<u>File Name</u>	<u>Size</u>	<u>Sensitivity Level</u>
001 MUAP-07006-NP-A(R2).pdf	34.1MB	Non-Proprietary