MITSUBISHI HEAVY INDUSTRIES, LTD.
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TOKYO, JAPAN

December 25, 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-09569

Subject: **MHI Technical Report MUAP-07014 "Defense-in-Depth and Diversity Coping Analysis Revision 2"**

References:
1 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 (ML081770157).
2 Letter from H. 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 (ML092080259).
3 Letter MHI Ref. UAP-HF-09529 from Y. Ogata ("MHI") to U.S. NRC, "Resubmission of accepted version of the Topical Report entitled "Defense-in-Depth and Diversity"," dated November 30, 2009 (ML093420120).

With this letter, Mitsubishi Heavy Industries, LTD. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") the Technical Report MUAP-07014 entitled "Defense-in-Depth and Diversity Coping Analysis Revision 2", which was previously submitted on December 31, 2007 and revised on June 20, 2008. This report supersedes the previous revision of the same report incorporated by reference in MHI's US-APWR DCD in October 2009. The previous version of this report was submitted, in Reference 1, concurrently with the Topical Report MUAP-07006 "Defense-in-Depth and Diversity". The Topical Report MUAP-07006 was reviewed and approved by the NRC, as described in Reference 2, and the approved methodology is described in MUAP-07006-P-A(R2) "Defense-in-Depth and Diversity", submitted by Reference 3. The Safety Evaluation Report, transmitted by Reference 2, identified several application-specific action items ("ASAIs") that must be addressed when using the approach in MUAP-07006-P-A(R2). The enclosed version of MUAP-07014 provides new and updated plant-specific design information in response to certain applicable ASAIs identified in Reference 2. The Technical Report is being submitted electronically in the two enclosed compact discs (CDs), one for the proprietary version and one for the non-proprietary version.

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

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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 submittal. His contact information is below.

Sincerely,

Y. Ogata

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

Enclosures:

1. Affidavit of Yoshiki Ogata

2. CD 1: "Technical Report MUAP-07014-P(R2) Defense-in-Depth and Diversity Coping Analysis"
– Version containing Proprietary information

3. CD 2: "Technical Report MUAP-07014-NP(R2) Defense-in-Depth and Diversity Coping Analysis"
– 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

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C. Keith Paulson, Senior Technical Manager
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ENCLOSURE 1

Docket No. 52-021

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 "Technical Report MUAP-07014-P(R2) Defense-in-Depth and Diversity Coping Analysis" dated December 25, 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 post-accident response of the US-APWR crediting design features 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 Research and Development, detailed design for its software and hardware 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 post-accident plant response of the US-APWR to the design features 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 25th day of December, 2009.

Y. Ogata

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

ATTACHMENT 1

FILE CONTAINED IN CD 1

CD 1: "Technical Report MUAP-07014-P(R2) Defense-in-Depth and Diversity Coping Analysis"
– Version containing proprietary information

Contents of CD

File Name	Size	Sensitivity Level
001_D3 Coping Analysis_R2(Proprietary).pdf	413KB	Proprietary

ATTACHMENT 2

FILE CONTAINED IN CD 2

CD 2: "Technical Report MUAP-07014-NP(R2) Defense-in-Depth and Diversity Coping Analysis"
– Version not containing proprietary information

Contents of CD

File Name	Size	Sensitivity Level
001_D3 Coping Analysis_R2(Non-proprietary).pdf	375KB	Non-Proprietary