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

September 30, 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-11330

Subject: **MHI Technical Report MUAP-07014 "Defense-in-Depth and Diversity Coping Analysis Revision 5"**

References: 1) "MHI's Response to US-APWR DCD RAI No. 753-5742 Revision 2 (SRP 07.08)", MHI Letter UAP-HF-11329, dated September 30, 2011.

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 5". This Technical Report was previously submitted on December 31, 2007 and revised on June 20, 2008, December 25, 2009, May 31, 2011, and August 1, 2011. The enclosed version supersedes the previous revision and provides new and updated information based on the response to RAI 753-5742 (Reference 1). 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) and 10 CFR § 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. The non-proprietary version of the Report is enclosed in CD 2. In the non-proprietary version, the proprietary information, bracketed in the proprietary versions, 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 CFR § 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 submittal. His contact information is below.

Sincerely,

Y. Ogata

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

D081
NRO

Enclosures:

1. Affidavit of Yoshiki Ogata

2. CD 1: "Technical Report MUAP-07014-P(R5) Defense-in-Depth and Diversity Coping Analysis"
– Version containing Proprietary information

3. CD 2: "Technical Report MUAP-07014-NP(R5) 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

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

ENCLOSURE 1

Docket No. 52-021
MHI Ref: UAP-HF-11330

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 "Technical Report MUAP-07014-P(R5) Defense-in-Depth and Diversity Coping Analysis", 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 documents have 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 and the unique post-accident response of the US-APWR crediting design features of the 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 D3 system and 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 30th day of September, 2011.

Y. Ogata

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

ATTACHMENT 1

FILES CONTAINED IN CD 1

CD 1: "Technical Report MUAP-07014-P(R5) Defense-in-Depth and Diversity Coping Analysis"
– Version containing proprietary information

Contents of CD

File Name	Size	Sensitivity Level
001_D3 Coping Analysis_R5(Proprietary).pdf	546KB	Proprietary

ATTACHMENT 2

FILES CONTAINED IN CD 2

CD 2: "Technical Report MUAP-07014-NP(R5) Defense-in-Depth and Diversity Coping Analysis"
– Version not containing proprietary information

Contents of CD

File Name	Size	Sensitivity Level
001_D3 Coping Analysis_R5(Non-proprietary).pdf	491KB	Non-Proprietary