16-5, KONAN 2-CHOME, MINATO-KU TOKYO, JAPAN

July 28, 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-11178

Subject:

Transmittal of supplements for RAI-3 and RAI-4 in 4th set RAIs and response to 6th set RAIs on US-APWR Topical Report "LARGE BREAK LOCA CODE

APPLICABILITY REPORT, MUAP- 07011-P (R0)"

Reference: [1] "REQUEST FOR ADDITIONAL INFORMATION US-APWR Topical Report: LARGE BREAK LOCA Code Applicability, MUAP- 07011-P (R0), dated August 8.

2010.

[2] MHI's Response to the NRC's Request for 4th Set of Additional Information on US-APWR Topical Report "LARGE BREAK LOCA CODE APPLICABILITY REPORT,

MUAP- 07011-P (R0)", UAP-HF-10247, dated September 13, 2010.

[3] AUDIT PLAN FOR THE UNITED STATES - ADVANCED PRESSURIZED WATER REACTOR DESIGN CERTIFICATION LBLOCA Topical Report

MUAP-07011-P (Rev. 0) April 5 - 6, 2011

[4] "REQUEST FOR ADDITIONAL INFORMATION US-APWR Topical Report: LARGE BREAK LOCA Code Applicability, MUAP- 07011-P (R0), dated April 15,

2011.

With this letter, Mitsubishi Heavy Industries, LTD. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") the document as listed in Enclosures.

Enclosure-2 is the supplemental responses to RAI-3 and RAI-4 in 4th set RAIs (Reference 1). These responses are substituted for the previous responses submitted by UAP-HF-10247 on September 13, 2010 (Reference 2) as per the discussion with the NRC at the meeting on April 5 and 6, 2011 (Reference 3). Enclosure-3 is the response to 6th set RAIs (Reference 4). The Referenced Materials are being submitted electronically in the Optical Storage Media ("OSM") enclosure. The files contained on OSM are listed on the associated enclosure cover sheet.

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) as trade secrets and commercial or financial information which is privileged or confidential.

This letter includes a copy of the proprietary version (Enclosure-2 and Enclosure-3), an Optical Storage Media ("OSM") containing electronic materials (Enclosure 4) and the Affidavit of Yoshiki Ogata (Enclosure 1) which identifies the reasons MHI respectfully requests that all materials designated as "Proprietary" in Enclosure 2 and Enclosure 3 be withheld from public 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,

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

Enclosures:

- 1 Affidavit of Yoshiki Ogata
- 2 Supplemental Responses to RAI-3 and RAI-4 in 4th set RAIs on US-APWR Topical Report "LARGE BREAK LOCA CODE APPLICABILITY REPORT, MUAP- 07011-P (R0)" (proprietary)
- 3 Response to the 6th Set of Request for Additional Information on US-APWR Topical Report "LARGE BREAK LOCA CODE APPLICABILITY REPORT" (proprietary)
- 4 OSM: Modified Subroutine and Evaluated Cases (Proprietary) The files contained in this OSM are listed in Attachment 1.

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: ckpaulson@mnes-us.com

Telephone: (412) 373-6466

MITSUBISHI HEAVY INDUSTRIES, LTD.

AFFIDAVIT

- I, Yoshiki Ogata, state as follows:
- 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 "Supplemental Responses to RAI-3 and RAI-4 in 4th set RAIs on US-APWR Topical Report "LARGE BREAK LOCA CODE APPLICABILITY REPORT, MUAP- 07011-P (R0)" (proprietary)" and "Response to the 6th Set of Request for Additional Information on US-APWR Topical Report "LARGE BREAK LOCA CODE APPLICABILITY REPORT" (proprietary)" and have determined that portions of the report 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 technical report indicates that all information identified as "Proprietary" should be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4). Similarly, all information and data recorded on the enclosed OSM should be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4).
- 3. The information in the report identified as proprietary by MHI 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 codes and files developed by MHI for the fuel of the US-APWR and also contains information provided to MHI under license from the Japanese Government. These codes and files were developed at significant cost to MHI, since they required the performance of detailed calculations, analyses, and testing extending over several years. The referenced information is not available in public sources and could not be gathered readily from other publicly available information. MHI knows of no way the information could be lawfully acquired by organizations or individuals outside of MHI and the Japanese Government.
- 5. The referenced information is being furnished to the Nuclear Regulatory Commission ("NRC") in confidence and solely for the purpose of supporting the NRC staff's review of MHI's Application for certification of its US-APWR Standard Plant Design.
- 6. Public disclosure of the referenced information would assist competitors of MHI in their design of new nuclear power plants without the costs or risks associated with the design of

new fuel systems and components. Disclosure of the information identified as proprietary would therefore have negative impacts on the competitive position of MHI in the U.S. nuclear plant market.

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 28th day of July, 2011.

Yoshiki Ogata,

General Manager- APWR Promoting Department

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Mitsubishi Heavy Industries, LTD.