



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

November 30, 2012

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-12311

**Subject: Transmittal of Technical Report "Ground Water Effects on SSI" (MUAP-11007, Revision 2)**

- Reference:**
- 1) Letter MHI Ref. UAP-HF-12280 from Y. Ogata ("MHI") to U.S. NRC, "Updated Closure Plan for US-APWR Seismic and Structural Analyses Schedule Improvement", dated October 12, 2012
  - 2) "Notice of Forthcoming Public Meeting with Mitsubishi Heavy Industries, Ltd. To Discuss The Response to the Nuclear Regulatory Commission Letter Concerning the United States-Advanced Pressurized Water Reactor Seismic and Structural Analysis," dated September 27, 2012, ML12270A176.

With this letter, Mitsubishi Heavy Industries, Ltd. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") the technical report "Ground Water Effects on SSI" (MUAP-11007, Revision 2), scheduled for submittal in accordance with Reference 1. As committed in the meeting noticed in Reference 2, this document received COL applicant participation, an internal peer review, and an external/independent review to ensure high quality and a technically complete submittal. Two versions of this Technical Report are being submitted, a proprietary (non-public) version and a non-proprietary (public) version.

Each version of enclosed documents is included on a separate compact disc. As indicated in the enclosed materials, this document contains information that MHI considers proprietary, and therefore should be withheld from public disclosure pursuant to the 10 C.F.R. § 2.390 (a)(4) as trade secrets and commercial or financial information which is privileged or confidential. A non-proprietary version of the document is also being submitted with the information identified as proprietary redacted and replaced by the designation "[ ]."

This letter includes a copy of the proprietary version (Enclosure 2), a copy of the non-proprietary version (Enclosure 3), and the Affidavit of Yoshiki Ogata (Enclosure 1) which identifies the reasons MHI respectfully requests that all materials designated as "Proprietary" in Enclosure 2 be withheld from public disclosure pursuant to 10 C.F.R. § 2.390 (a)(4).

Attachment 1 is a listing of the files contained in Enclosure 2 and Enclosure 3. Attachment 2 is a matrix which identifies sections of the report, where applicable, which contain information requested by the staff in various Requests for Additional Information (RAIs), and is being provided for the staff's convenience.

D081  
NRD

Please contact Mr. Joseph Tapia, General Manager of Licensing Department, Mitsubishi Nuclear Energy Systems, Inc. if the NRC has questions concerning any aspect of this letter. His contact information is provided below.

Sincerely,



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

Enclosures :

1. Affidavit of Yoshiki Ogata
2. CD 1: " Ground Water Effects on SSI"  
– Proprietary information version
3. CD 2: " Ground Water Effects on SSI"  
– Non-Proprietary information version

The file contained on each CDs is listed in Attachment 1.

CC: J. A. Ciocco  
J. Tapia

Contact Information

Joseph Tapia, General Manager of Licensing Department  
Mitsubishi Nuclear Energy Systems, Inc.  
1001 19th Street North, Suite 710  
Arlington, VA 22209  
E-mail: joseph\_tapia@mnes-us.com  
Telephone:(703) 908-8055

## ENCLOSURE - 1

Docket No. 52-021  
MHI Ref: UAP-HF-12311

### MITSUBISHI HEAVY INDUSTRIES, LTD.

#### AFFIDAVIT

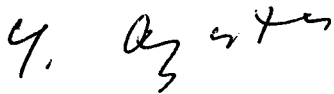
I, Yoshiki Ogata, state as follows:

1. I am Director, 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 documents below, and have determined that portions of the documents 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 bases for holding the referenced information confidential are as follows;
  - A. They include the output of analyses used by mathematical models developed at significant cost to MHI, since it required the performance of detailed design calculations, supporting analyses and testing. The information out of the analyses is not available in public sources and could not be gathered readily from other publicly available information.
  - B. They include the information that is provided to MHI pursuant to licensing agreements with third parties (the "Licensors") for MHI's use and under the obligation to maintain their confidentiality. Furthermore, MHI has an ownership interest in the referenced information by having paid significant sums of money to the Licensors for the rights to the intellectual property therein such that public disclosure of the materials would adversely affect MHI's competitive position.
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. 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 methodology of modeling and analysis for building structure design. Providing public access to such information permits competitors to duplicate or mimic the methodology without incurring the associated costs.

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 30<sup>th</sup> day of November, 2012.

A handwritten signature in black ink, appearing to read 'Y. Ogata' with a stylized flourish at the end.

Yoshiaki Ogata,  
Director- APWR Promoting Department  
Mitsubishi Heavy Industries, LTD.

**ATTACHMENT – 1**

**FILES CONTAINED IN CDs**

CD 1: Technical Report,  
MUAP-11007 Revision 2, "Ground Water Effects on SSI (Proprietary Version)",  
– Version Containing Proprietary Information

Contents of CD1

<u>File Name</u>	<u>Size</u>	<u>Sensitivity Level</u>
MUAP-11007_R2(Proprietary version).pdf	3.25MB	Proprietary

CD 2: Technical Report,  
MUAP-11007 Revision 2, "Ground Water Effects on SSI (Non-proprietary Version)",  
– Version Not Containing Proprietary Information

Contents of CD2

<u>File Name</u>	<u>Size</u>	<u>Sensitivity Level</u>
MUAP-11007_R2(Non-Proprietary version).pdf	2.44MB	Non-Proprietary

**ATTACHMENT – 2**  
**REPORT SECTIONS CONTAINING INFORMATION REQUESTED BY NRC REQUESTS FOR**  
**ADDITIONAL INFORMATION (RAIs)**

DCD Sect	RAI	eRAI	Question #	Question # (sub-number)	Section, paragraph, figure, and/or table where question is answered <sup>(1)</sup>
3.8.5	657	5135	3.8.5-38		Entirety of MUAP-11007
3.7.2	660	5134	3.7.2-33	3.7.2-60	Part 1 - Entirety of MUAP-11007 Part 2 - Sections 2.4 & 3.0 Part 3 - Section 2.2
3.7.2	776	5851	3.7.2-84		Entirety of MUAP-11007 (Report presents the study of the R/B Complex configuration including the A/B, which is described in Section 2.5.2.)
3.7.1	798	5876	3.7.1-17		Entirety of MUAP-11007
3.7.1	850	6002	3.7.1-28		Section 2.4
3.7.2	854	6088	3.7.2-151		Part (a) - Revised Title of MUAP-11007. Part (b) - Entirety of MUAP-11007 Part (c) - Sections 2.5.1 Part (d) - Reports are consistent Part (e) - N/A Standalone Part (f) - Sections 2.3 and 3.1 and Figure 3-5. Part (g) - Not Included
3.7.2	854	6088	3.7.2-152		N/A - Standalone
3.7.2	854	6088	3.7.2-153		Section 2.5.1
3.7.2	854	6088	3.7.2-154		Item a) Section 2.4 and 2.5.1 Item b) Section 2.4
3.7.2	854	6088	3.7.2-158		Section 2.5
3.7.2	854	6088	3.7.2-160		Section 2.2
3.7.2	854	6088	3.7.2-161		Sections 2.3 and 3.1
3.7.2	854	6088	3.7.2-162		Section 2.2
3.7.2	854	6088	3.7.2-163		Section 2.1 and Tables 2-1 & 3-2
3.7.2	856	6094	3.7.2-167		Section 2.1 (Also MUAP-10006, Section 03.3.3)

Note

(1) Standalone responses are indicated where the response involves specific clarification or justification.



**MITSUBISHI HEAVY INDUSTRIES, LTD.**  
16-5, KONAN 2-CHOME, MINATO-KU  
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November 29, 2012

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