



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

January 31, 2013

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-13007

**Subject: Transmittal of Containment Internal Structure: Design Criteria for SC Walls (MUAP-11019), Revision 1**

- 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 on October 12, 2012, ML12290A009.
  - 2) Letter MHI Ref: UAP-HF-12108 from Y. Ogata ("MHI") to U.S. NRC, "MHI's Responses to US-APWR DCD RAI No. 905-6311 REVISION 3 (SRP 03.08.03)" dated on May 16, 2012, ML12138A217.
  - 3) Letter MHI Ref: UAP-HF-12197 from Y. Ogata ("MHI") to U.S. NRC, "MHI's Responses to US-APWR DCD RAI No. 931-6467 REVISION 3 (SRP 03.08.03)" dated on August 20, 2012, ML12235A511.
  - 4) Letter MHI Ref. UAP-HF-12295 from Y. Ogata ("MHI") to U.S. NRC, "MHI's Response to US-APWR DCD RAI No. 958-6608 (SRP 03.08.03)," dated on November 19, 2012, ML12331A337
  - 5) "Notice of Forthcoming Public Meeting with Mitsubishi Heavy Industries, Ltd. To Discuss Its Response to the Nuclear Regulatory Commission Letter Concerning the United States - Advanced Pressurized Water Reactor Seismic and Structural Analysis," dated on September 27, 2012, ML12270A176.

With this letter, Mitsubishi Heavy Industries, Ltd. (MHI) transmits to the U.S. Nuclear Regulatory Commission (NRC) the technical reports "Containment Internal Structure: Design Criteria for SC Walls," MUAP-11019, Revision 1, scheduled for submittal in accordance with Reference 1. This revision of the Technical Report includes the discussion related to responses to Requests for Additional Information (RAIs) (RAI 905-6311 Q.68, Q.69, Q.71, Q.74, Q.75, Q.77, Q.78, Q.79; RAI 931-6467 Q.87, Q.88; and RAI 958-6608 Q.92) shown in References 2 thru 4. As committed in the meeting noticed in Reference 5, this document underwent reviews by COL applicants, an internal peer review, and an external/independent review to ensure high quality and a technically complete submittal. In certain cases this report refers to revisions of related Technical Reports that will be submitted to the staff for review in February 2013 to maintain the consistency of the contents between the reports.

Each version of the enclosed document is included on a separate compact disc (CD). 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 CFR § 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 "[ ]."

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NRD

This letter includes a copy of the proprietary (non-public) version (Enclosure 2), a copy of the non-proprietary (public) 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 CFR § 2.390 (a)(4).

Attachment 1 is a list 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 RAIs, and is being provided for the staff's convenience.

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 submittal. 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: "Containment Internal Structure: Design Criteria for SC Walls" – Proprietary
3. CD 2: "Containment Internal Structure: Design Criteria for SC Walls" – Non-Proprietary

The file contained in each CD is listed in Attachment 1.

CC: J. A. Ciocco  
J. Tapia

Contact Information

Joseph Tapia, General Manager of Licensing Department  
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**ENCLOSURE – 1**

Docket No. 52-021  
MHI Ref: UAP-HF-13007

**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 CFR § 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, 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 CFR § 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 extensive 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 31<sup>st</sup> day of January, 2013.

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 Reports,  
MUAP-11019 Revision 1, “Containment Internal Structure: Design Criteria for SC  
Walls (Proprietary Version)” – Versions Containing Proprietary**

**Contents of CD1**

<u>File Name</u>	<u>Size</u>	<u>Sensitivity Level</u>
MUAP-11019-P_R1.pdf	13.3MB	Proprietary

**CD 2: Technical Report,  
MUAP-11019 Revision 1, “Containment Internal Structure: Design Criteria for SC  
Walls (Non-proprietary Version)” – Versions Not Containing Proprietary**

**Contents of CD2**

<u>File Name</u>	<u>Size</u>	<u>Sensitivity Level</u>
MUAP-11019-NP_R1.pdf	1.74MB	Non-Proprietary

**ATTACHMENT – 2**

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

<b>DCD Sect</b>	<b>RAI Letter Number</b>	<b>RAI Number</b>	<b>RAI Question Number</b>	<b>Section, paragraph, figure, and/or table where question is answered<sup>(1)</sup></b>
3.8.3	905	6311	03.08.03-68	Section 2.3
3.8.3	905	6311	03.08.03-69	Section 2.7
3.8.3	905	6311	03.08.03-71	Sections 2.6, 2.7 and 8.6
3.8.3	905	6311	03.08.03-74	Section 2.8
3.8.3	905	6311	03.08.03-75	Section 4.3
3.8.3	905	6311	03.08.03-77	Part 1 - Section 6.2 Part 2 - Section 6.4 Part 3 - Standalone Part 4 - Corrected throughout the report as appropriate
3.8.3	905	6311	03.08.03-78	Part 1 - Standalone Part 2 - Standalone Part 3 - Section 8.4 Part 4 - Section 8.4
3.8.3	905	6311	03.08.03-79	Part 1: Section 2.2 Part 2: Section 2.6 Part 3: Section 6.4 Part 4: Section 7.2 Part 5: Section 8.3
3.8.3	931	6467	03.08.03-87	Executive Summary and Sections 2.6 and 2.7 Local Thermal Effects portion of response will be standalone
3.8.3	931	6467	03.08.03-88	Part 1 - MUAP-11020 Part 2 - MUAP-11020 Part 3 - Section 8.1
3.8.3	958	6608	03.08.03-92	Standalone

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