MITSUBISHI HEAVY INDUSTRIES, LTD.
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TOKYO, JAPAN

August 12, 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-11265

Subject: Clarification to Previously Submitted Information Regarding the US-APWR Containment Internal Structure (CIS)

References:

(1) Letter (ML11196A126) from Y. Ogata (MHI) to U.S. NRC, "Transmittal of the Technical Reports "Lumped Mass Stick Model of US-APWR Reactor Building Complex" (MUAP-11006), "Results of Evaluation using LMSM for R/B Complex" (MUAP-11007), "Structure-Soil-Structure Interaction Analyses and Results for the PS/B, R/B Complex and A/B Analyses" (MUAP-11011), and "Containment Internal Structure Design and Validation Methodology" (MUAP-11013)" dated June 29, 2011

(2) Letter (ML11188A250) from Y. Ogata (MHI) to U.S. NRC, "MHI's Supplemental Response to US-APWR DCD RAI No. 542-4262 (SRP 03.07.02)" dated on June 30, 2011

(3) Letter (ML11214A136) from Y. Ogata (MHI) to U.S. NRC, "Clarification to Previously Submitted Information Regarding the US-APWR Containment Internal Structure (CIS)" dated July 29, 2011

In Reference 1, Mitsubishi Heavy Industries, Ltd. (MHI) submitted Technical Report MUAP-11013, Revision 0, Containment Internal Structure Design and Validation Methodology," to provide an approach for the design of the Containment Internal Structure (CIS). In Reference 2, MHI submitted a mark-up of the Design Control Document (DCD) to reflect the information presented in the technical reports submitted in Reference 1. In Reference 3 MHI stated that a revision to Technical Report MUAP-11013 and the associated DCD text to clarify that it is MHI's intention to utilize ACI-349 Code requirements as the basis for the design of the CIS are to be provided by August 15, 2011.

Enclosed is Technical Report MUAP-11013, Revision 1 and the associated mark-up of the DCD. The markup of DCD pages also reflects (as green text inserts and red line strike-outs) the changes provided in Reference 2. The changes from Reference 2 are identified in the right hand margin as change DCD 03.07.02-35. In addition to adding information regarding ACI-349 back into the DCD, this mark-up includes relocation of text to improve readability.

As stated in Reference 3, the following design methodology will be used for the CIS:

D081
LRW

(i) MHI will utilize the ACI-349 Code as the basis for the design of the CIS, including the steel-concrete (SC) structures.

(ii) MHI will demonstrate the applicability and conservatism of ACI-349 Code equations using test data that already exists (1/6 and 1/10 scale tests and other tests) and research literature. To the extent possible, the final design configuration and detailing of the SC structures will be equivalent to or more conservative than that used in the scale tests. Differences will be specifically identified and technically justified.

(iii) Where ACI-349 Code does not address SC specific design issues or is not applicable, it will be supplemented by MHI through the use of conservative engineering approaches that are correlated to available test data, research literature, and industry recognized design methods. When necessary, the conservatism of MHI's supplemental engineering approaches for the US-APWR project specific SC design will be subsequently confirmed through appropriate testing.

This approach has been clarified in the revision to Technical Report MUAP-11013 and the mark-up to the DCD.

The enclosed Technical Report MUAP-11013, Revision 1, 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. 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). In addition, certain information is designated pursuant to the Commission guidance as sensitive unclassified non-safeguards information, referred to as security-related information ("SRI"), that is to be withheld from public disclosure under 10 C.F.R. § 2.390. Accordingly, MUAP-11013 is being submitted in two versions, in separate compact discs. MUAP-11013-P (in CD 1) contains the non-public, proprietary version. This version of the Report is complete with all SRI and proprietary information. The information that is SRI is identified by brackets. In the public, non-proprietary version MUAP-11013-NP, the SRI is replaced by the designation "[Security-Related Information – Withheld under 10 CFR 2.390] and the proprietary information, bracketed in the proprietary version, is replaced by the designation "[ ]". The public version of the Report is enclosed in CD 2.

Please contact Dr. C. Keith Paulson, Senior Technical Manager, 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,
General Manager- APWR Promoting Department
Mitsubishi Heavy Industries, LTD.

Enclosures:

1. Affidavit

2. CD 1: "Containment Internal Structure Design and Validation Methodology" (Non-Public Version)

3. CD 2: "Containment Internal Structure Design and Validation Methodology" (Public Version)

4. CD 3: DCD Mark-Up to Add Information Back-in DCD Relative to ACI-349

The files contained in CDs are listed in Attachment 1 hereto.

CC : J. A. Ciocco
C. K. Paulson

Contact Information
C. Keith Paulson, Senior Technical Manager
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ENCLOSURE 1

MITSUBISHI HEAVY INDUSTRIES, LTD.

AFFIDAVIT

I, Yoshiki Ogata, being duly sworn according to law, depose and 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 documentations to determine whether it contains information that 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.

2. In accordance with my responsibilities, I have reviewed the enclosed report, "Containment Internal Structure Design and Validation Methodology" MUAP-11013-P/NP (R0), 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).

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 design developed by MHI for the containment internal structure of the US-APWR. That design was developed at significant cost to MHI, since it required the performance of detailed design 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.

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 the containment internal structure. 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 12th day of August, 2011.

Y. Ogata

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

ATTACHMENT 1

FILES CONTAINED IN CDs

CD 1: "Containment Internal Structure Design and Validation Methodology" (Proprietary)

Contents of CD

File Name	Size
MUAP-11013(R1)_Proprietary.pdf	6.7 MB

CD 2: "Containment Internal Structure Design and Validation Methodology" (Non-Proprietary)

Contents of CD

File Name	Size
MUAP-11013(R0)_Non-Proprietary.pdf	0.5 MB

CD 3: DCD Mark-Up to Add Information Back-in DCD Relative to ACI-349

Contents of CD

File Name	Size
DCD Markups to Reintro ACI-349.pdf	0.4 MB