
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

03/29/2013

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

RAI NO.: NO. 858-6126 REVISION 3

SRP SECTION: 03.08.03 – Concrete and Steel Internal Structures of Steel or Concrete Containments

APPLICATION SECTION: 3.8.3

DATE OF RAI ISSUE: 10/25/2011

QUESTION NO. 03.08.03-44:

Section 1.2 of MHI TR MUAP-11013-P (R1) discusses the 1/6th scale test of the primary shield structure. Provide a description of the various configuration details and material properties to demonstrate that the 1/6th scale test is “identical” to the US-APWR CIS as stated in Section 1.2 of the TR. Explain why only a portion of the primary shield structure is subject to unidirectional cyclic lateral loading during the test. Also, provide the test summary report available for the 1/6th scale test.

ANSWER:

This answer revises and replaces the previous MHI answer that was transmitted by letter UAP-HF-12051 (ML12075A108).

Technical Report MUAP-11013, Rev. 2, Appendix A, Subsection 8.0, summarizes the 1/6th scale test and associated benchmarking analysis. The results of the 1/6th scale test of the primary shield structure, the description of the various configuration details and material properties of the 1/6th scale test, and a comparison to the US-APWR containment internal structures (CIS) are also provided in more detail in the calculation report for the 1/6th scale test benchmarking.

The physical test summary report was included in Technical Report MUAP-11005, Rev. 1, Section 2.2. The associated research paper is included as Reference 5 in Technical Report MUAP-11005, Rev. 1, Appendix E.

Impact on DCD

There is no impact on the DCD.

Impact on R-COLA

There is no impact on the R-COLA.

Impact on S-COLA

There is no impact on the S-COLA.

Impact on PRA

There is no impact on the PRA.

Impact on Technical/Topical Report

There is no impact on the Technical/Topical Report.

This completes MHI's response to the NRC's question.