SUPPLEMENTAL RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

10/11/2013

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. 03.08.03-48:

Section 2.2 of MHI TR MUAP-11013-P (R1) describes non-SC structures. For the Category 5 structures, which are massive reinforced concrete sections, provide more descriptive information with figures showing the "thick reinforced concrete blocks," and explain how these blocks are anchored to the basemat of the reactor building complex and possibly to each other.

For the Category 6 structures, which are steel structures with nonstructural concrete fill, (a) provide configuration details for the "steel shape grillages" mentioned in the TR, (b) explain how the Category 6 structures are modeled in the seismic SSI model and separate model(s) to develop member forces, and (c) describe how these structures will be designed. Even though some information is provided in the separate MHI TR MUAP-11018-P (R0), not all of the above requested information is presented in the other TR. Also, a technical basis for only including the steel stiffness properties of this Category 6 structure has not been provided. Even though the concrete is considered to be "nonstructural," it may provide some stiffness to the members. Therefore, the potential range of stiffness for such members should be considered or an acceptable technical basis needs to be provided for totally neglecting the concrete

ANSWER:

This answer supplements the previous MHI answer that was transmitted on February 24, 2011 (ML 12075A128).

Refer to RAI 958-6608, Q03.08.03-94 for answers to Category 6 questions.

Impact on DCD

There is no impact on the DCD.

Impact on R-COLA

There is no impact on the R-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.