
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

02/27/2013

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

RAI NO.: NO. 660-5134 REVISION 2
SRP SECTION: 03.07.02 – Seismic System Analysis
APPLICATION SECTION: 3.7.2
DATE OF RAI ISSUE: 11/15/2010

QUESTION NO. 03.07.02-39 (03.07.02-68):

This request for additional information (RAI) is necessary for the staff to determine if the application meets the requirements of 10 CFR Part 50, Appendix A, General Design Criteria 2; 10 CFR Part 50 Appendix S; and 10 CFR Part 100; as well as the guidance in NUREG-0800, 'Standard Review Plan for the Review of Safety Analysis for Nuclear Power Plants,' Chapter 3.7.2, "Seismic System Analysis."

In support of the DCD, the applicant has provided various supporting Topical Reports and Appendices to the DCD. Appendix 3C to DCD Rev. 0 describes reactor coolant loop analysis methods, Appendix 3H to DCD Rev. 0 describes an uncoupled model of the RIB-PCCV-CIS, Appendix 31 contains ISRS from the uncoupled model described in Appendix 3H, MUAP-08002 (RO) provides results from lumped mass stick models of the PS/Bs, MUAP-08005 (RO) describes the seismic analysis of the coupled RCL-RIBPCCV-CIS model, MUAP-10001 (R1) also describes models of the PS/Bs and a coupled model of the R/B complex, MUAP-10006 (RO) provides additional documentation of SSI results for the PS/Bs and R/B complex.

The staff also understands that new revisions of MUAP-10001 and MUAP-10006 are forthcoming along with reports documenting the seismic analysis of the T/B, A/B, and AC/B.

Because of the number of reports submitted and the evolutionary process of the documentation for the seismic analysis of the Standard Plant, the staff requests that the applicant clearly indicate the documentation strategy for the DCD and supporting topical reports. The applicant should state the role of the various appendices and reports that have been and are expected to be issued in support of the DCD. The applicant should indicate which appendices or reports, if any, are obsolete, which appendices or reports have superseded any obsolete appendices or reports, and which documents contain or will contain the final design values of record that will be used for the US-APWR Standard Plant. It will be helpful if the applicant provides a table showing the relationships between and the roles of the various appendices and reports.

ANSWER:

This answer revises and replaces the previous MHI answer transmitted by letter UAP-HF-10355 (ML110040071).

The updated Seismic Closure Plan for the US-APWR seismic and structural analyses, which was transmitted on February 15, 2013, in MHI letter UAP-HF-13034, provides an overview of the evolutionary process of the documentation and regulatory basis for the DCD and supporting MHI technical reports. The tables included as attachments to the letter provide details of the information being included in the DCD, Technical Reports (MUAPs), calculations and RAI responses.

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 a Technical/Topical Report

There is no impact on a Technical/Topical Report.

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