
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

02/27/2013

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

RAI NO.: NO. 495-3980 REVISION 1
SRP SECTION: 03.07.02 - Seismic System Analysis
APPLICATION SECTION: 3.7.2
DATE OF RAI ISSUE: 12/01/2009

QUESTION NO. 03.07.02-05:

It is stated in Tier 1, Section 3.1 of the DCD Rev. 1, that the PSFSVs and the ESWPT are part of the US-APWR standard plant. In contrast, it is stated in Tier 2, Section 3.7.1.1 of the DCD Rev. 1, that the PSFSVs and ESWPT are not part of the standard plant.

The regulatory requirements for seismic design and analysis for the DCD depend on whether a structure is part of the standard plant or is a site-specific structure. Accordingly, the applicant should clarify whether the PSFSVs and ESWPT are part of the standard plant, or are site-specific structures. The applicant should also describe how the Tier 1 and Tier 2 of the DCD will be modified to be consistent on this issue.

ANSWER:

This answer revises and replaces the previous MHI answer that was transmitted by letter UAP-HF-10029 (ML100360838).

The Essential Service Water Pipe Tunnel (ESWPT) has been separated into two components. The portion of the ESWPT that runs east-west on the south side of the Reactor Building (R/B) complex has been incorporated into the R/B complex structure. This portion is now called the Essential Service Water Pipe Chase (ESWPC) and is part of the standard design. The ESWPC is included in the R/B complex model evaluated in Technical Report MUAP-10006, Rev. 3. The remaining portion of the ESWPT is a site-specific plant structure.

The response to RAI 220-2058 Revision 1, Question 3.4.1-01 (MHI Ref: UAP-HF-09152, ML091030066), noted that DCD Tier 1, Section 3.1, identifies those structures, systems and components including the Power Source Fuel Storage Vault (PSFSVs) and ESWPT, that contain standard plant systems for the main power block of the US-APWR standard design. The response to Question 3.4.1-01 also notes that DCD Tier 2, Subsection 3.8.4 and related COL Items identify the responsibility of the seismic design of standard plant and non-standard plant buildings and structures. A previous statement in Subsection 3.7.1.1 regarding the PSFSVs and the ESWPT, which was in the same context as the discussion in Subsection 3.8.4, has been deleted.

Also as noted in RAI 220-2058, DCD Tier 1, Sections 1.2 and 3.1, and DCD Tier 2, Subsection 3.8.4 clarify the responsibilities of the DCD for system functional design and seismic design of the PSFSVs and ESWPT, which contain the standard design systems of the main power block but are seismically designed as non-standard plant buildings.

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 a Technical/Topical Report.

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