RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

03/29/2013

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

RAI NO.:	**NO. 905-6311 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:	**01/25/2012**

QUESTION NO. 03.08.03-74:

Section 2.8 of the MHI Technical Report MUAP-11019-P (R0) discusses SC faceplate penetration detailing. It indicated that, similar to the reinforced concrete (RC) application, an additional cover plate with thickness and width equal to that of the plate interrupted by the penetration is provided on all sides of the penetration. However, unlike the RC walls where the integrity of the structure is achieved through bond between concrete and steel reinforcement, the integrity of the SC walls relies on anchor studs, tie bars and welds. Therefore, explain whether additional studs and tie bars are added to the sides of the penetration and how are the size and spacing for these studs and tie bars determined. Also, provide representative penetration details including, thickened faceplate dimensions, penetration sleeves and associate anchors, faceplate studs, tie bars, welds (locations, types and sizes), how these elements are sized, and how local thermal effects due to hot piping are considered.

ANSWER:

This answer revises and replaces the previous MHI answer that was transmitted by letter UAP-HF-12108 (ML12138A217).

Section 2.9 of Technical Report MUAP-11019 Rev. 1, has been added to include steel concrete (SC) wall penetration general design methodology.

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 Report

There is no impact on the Technical Report.

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