

OPEN ITEMS 16.4.12

09/16/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 16.4.12 – Refueling Operations Technical Specifications Branch

[Open Item 16-133-1827/15] This question is related to RAI 16-133-1827/15.

The APWR GTS, Subsection 3.9.4, LCO 3.9.4.a, contains a requirement for containment closure with the equipment hatches to be held in place with 4 bolts. The Westinghouse STS has identified this requirement as preliminary pending additional details regarding equipment hatch weight, bolting size, and bolt material. In RAI 16-15, the applicant was asked to provide additional details on the equipment hatch weight and bolting design. In its response letter dated January 29, 2009, the applicant stated:

"The weight of equipment hatch is planned as 900 kN or less. The diameter of bolts is planned as more than 1.4 inch. When the equipment hatch are held in place by four bolts, the shear stress for each bolt is less than 33 psig, which is enough smaller than the minimum yield stress of bolt material 81 psig."

The staff noted that the information provided above is still preliminary in nature, and suggested that the "4 bolts" requirement in LCO 3.9.4.a remain bracketed as shown in the Westinghouse STS. This is an open item (OI 16-133-1827/15).

[Open Item 16-133-1827/20] This question is related to RAI 16-133-1827/20.

In LCO 3.9.4.a, the applicant proposed a new option to allow an open equipment hatch that is capable of being closed when needed and a new SR 3.9.4.2 to be performed if the option is used. In RAI 16-20, the applicant was asked to provide a comparable discussion in the APWR GTS bases, as was provided in the AP1000 GTS regarding the steaming condition due to loss of residual heat removal if this new option is used. In its response letter dated January 29, 2009, the applicant indicated that no further information would be provided in the bases and stated:

"The requirement that equipment hatches are capable of being closed, which is different from the Technical Specifications of AP1000, is approved by NRC in Technical Specification Task Force "TSTF-68-A, Rev. 2."

In a review of TSTF-68-A, Revision 2, the staff noted that the NRC's acceptance of TSTF-68-A, Revision 2 is applicable only to Containment Personnel Air Lock Doors not to Equipment Hatches and, therefore, finds the above response unacceptable. A discussion of the steaming condition should have been provided as originally requested. This is an open item (OI 16-133-1827/20).