

REQUEST FOR ADDITIONAL INFORMATION 741-5688 REVISION 0

4/27/2011

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 05.04.11 - Pressurizer Relief Tank

Application Section: SRP 5.4.11

QUESTIONS for Reactor System, Nuclear Performance and Code Review (SRSB)

05.04.11-1

Question 05.04.11-1

The PRT rupture disks are designed to open should the discharge result in a pressure that exceeds the PRT design pressure. In addition, the PRT rupture disks have a relief capacity greater than or equal to the combined capacity of the pressurizer safety valves. The applicant states that "The PRT and rupture disks are also designed for full vacuum to prevent PRT collapse, in the event that the contents are cooled following a discharge without nitrogen being added." However, during its review, the staff found no information or reference to support the applicant's conclusion. Provide a reference and discussion to support the information in regard to the PRT rupture disk design features stated above.

05.04.11-2

Question 05.04.11-2

The applicant states that the PRT rupture disks are designed and located in such a way "that they do not pose a missile threat to any safety-related equipment." However, after reviewing DCD Section 3.5.1, "Missile Selection and Description" and specifically Section 3.5.1.2, "Internally Generated Missiles (Inside Containment)," the staff found that the information provided in these sections was general in nature and the analyses were not related to rupture disks. Identify a reference and provide a description that shows that the PRT rupture disks do not pose a missile threat because of their design and location within the containment.

05.04.11-3

Question 05.04.11-3

In DCD Tier 1, Subsections 2.4.1 and 2.4.2, Tier 2, Chapter 3, "Design of Structures, Systems, Components, and Equipment," and Subsection 5.4.11, the staff could not find sufficient information to satisfy acceptance criterion which states: at the interface between Seismic Category I and non-Seismic Category I SSCs, the Seismic Category I dynamic analysis requirements should be extended to either the first anchor point in the non-seismic system or a sufficient distance into the non-Seismic Category I system so that the Seismic Category I analysis remains valid. (1) Identify the reference and provide a discussion that supports your position in respect to Regulatory Position C.3 of RG 1.29. (2) From the subsections noted above, how are the reactor coolant pressure boundary (RCPB) components identify from the non-RCPB at the point of interface?