

# REQUEST FOR ADDITIONAL INFORMATION 768-5830 REVISION 3

6/14/2011

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 03.08.01 - Concrete Containment

Application Section: 3.8.1

QUESTIONS for Structural Engineering Branch 1 (AP1000/EPR Projects) (SEB1)

03.08.01-14

In the US-APWR DCD, Subsection 3.8.1.6, (p. 3.8-25), it states ““The specification for the PCCV personnel airlocks and equipment hatch refers to the ASME Code, Section III, Division 1 (Reference 3.8-48), which is applicable to metallic material not backed by concrete for load carrying purposes (refer to Subarticle CC-2112 for the delineation of jurisdiction). Fracture toughness requirements for materials for locks and hatch and other penetration assemblies subject to Division 1 of the ASME Code, Section III are in accordance with Article NE-2300 (Reference 3.8-48).”

The statement quoted above does not specifically require that these steel subassemblies are to be designed and analyzed to meet ASME Code, Section III, Division 1. It states rather that the specification for these steel subassemblies “refers” to the ASME Code, Section III, Division 1. In addition, there are steel subassemblies other than the airlocks and equipment hatch, such as the fuel transfer tubes, that are not explicitly covered in this section of the DCD.

The Applicant is requested to provide the following information:

1. A statement in the US-APWR DCD in Section 3.8.1 that lists all steel penetration assemblies in the PCCV not backed by concrete, such as the airlocks, equipment hatch, fuel transfer tubes, etc., that must be designed and analyzed to meet the requirements of ASME Code, Section III, Division 1.
2. Revise the following paragraph in the US-APWR DCD, Subsection 3.8.1.6 (p. 3.8-25) to include a specific commitment that the design and analysis of these steel subassemblies are in accordance with the requirements of ASME Code, Section III, Division 1:

“The specification for the PCCV personnel airlocks and equipment hatch refers to the ASME Code, Section III, Division 1 (Reference 3.8-48), which is applicable to metallic material not backed by concrete for load carrying purposes (refer to Subarticle CC-2112 for the delineation of jurisdiction). Fracture toughness requirements for materials for locks and hatch and other penetration assemblies subject to Division 1 of the ASME Code, Section III are in accordance with Article NE-2300 (Reference 3.8-48).”