

# REQUEST FOR ADDITIONAL INFORMATION NO. 172-1864 REVISION 1

2/3/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 12.03-12.04 - Radiation Protection Design Features  
Application Section: 12.3

QUESTIONS for Health Physics Branch (CHPB)

12.03-12.04-10

10 CFR 20.1601 requires licensees to control access to areas where personnel could be exposed to high dose rates. The guidance contained in Regulatory Guide 1.206 section C.I.12.3.1 notes that the applicant is to provide the information regarding the design features associated with access control. Regulatory Guide 8.38 contains guidance regarding the use of physical barriers to prevent undetected circumvention of barrier. Regulatory Guide 8.8 Position C2.a, provides guidance to regarding design features to control access to high dose rate areas.

The APWR FSAR Figure 12.3-1 "Radiation Zones for Normal Operation/Shutdown (Sheet 16 of 34) Auxiliary Building at Elevation -8'-7" ", identifies several piping areas as Zone IX (Maximum Dose Rate < 500 Rad/h) areas. Unlike other areas depicted on the drawings of this elevation, and the elevations immediately above and below, design features provided for access control are not provided (i.e. barrier gates) for these piping areas. Some of the piping areas depicted on this drawing are large enough to accommodate personnel access, or contain equipment needing maintenance. This figure contains insufficient design features to ascertain whether adequate access controls (i.e. area access points, and the physical barriers in place) have been provided for some high dose rate areas. The FSAR figures showing the floors above and below this elevation also do not provide access information for these areas.

In accordance 10 CFR 12.1601, and Regulatory Guides 8.8 , 8.38 and 1.206, please update chapter 12 to provide those design features provided to control access to the piping areas identified in the Figure 12.3-1 drawings, or revise chapter 12.3 to provide your justification for not providing the change.