REQUEST FOR ADDITIONAL INFORMATION 473-3801 REVISION 1

10/14/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 06.04 - Control Room Habitability System
Application Section: SRP 6.4

QUESTIONS for Containment and Ventilation Branch 1 (AP1000/EPR Projects) (SPCV)

06.04-9

RG 1.197, "Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors," Regulatory Position 2.5, states that any analysis to demonstrate compliance with GDC 19 should include a value for inleakage that is due to ingress to and egress from the control room envelope, which is combined with the inleakage test value. Section 6.4.2.3 of the DCD states that a total system leakage of ~120 cfm in the pressurization mode will be confirmed by ASTM E-741 testing. The total control room unfiltered inleakage assumed in the DBA dose analyses is 120 cfm. DCD Section 15.6.5.5.1.2 and Tables 14.3-1 & 15.6.5-5 state that the assumed control room unfiltered inleakage of 120 cfm is due to ingress/egress through the vestibule entrance. These statements seem to contradict each other. Clarify how much of the 120 cfm of control room unfiltered inleakage is attributed to inleakage through the control room envelope and subject to the ASTM E-741 testing in the TS 5.5.20 Control Room Envelope Habitability Program and how much is an analysis assumption for vestibule ingress/egress. Please be sure to update any licensing documents to have a clear design basis for ingress/egress as well as clear testing objectives.

Regulatory Guide 1.197 states that the "staff considers 10 cfm as a reasonable estimate for ingress and egress for control rooms without vestibules." If you choose a value other than what is suggested by Regulatory Guide 1.197, please provide a justification for the value and include a description of any design features credited in achieving this value in the FSAR.