

REQUEST FOR ADDITIONAL INFORMATION 449-3495 REVISION 1

9/1/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 06.05.01 - ESF Atmosphere Cleanup Systems
Application Section: DCD Tier 2 section 9.4.6 Containment Cooling

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

06.05.01-8

This question pertains to DCD section 9.4.6. However, since the SRP does not have a section 9.4.6, SRP sections 6.5.1 and 9.4.3 are used to guide the review of this section.

Through testing and analyses, the three internal subsystems of the Containment Ventilation System (i.e. Containment Fan Cooler System, Control Rod Drive Mechanism Cooling System and Reactor Cavity Cooling System) need to be demonstrated capable of keeping the Containment average air temperature at or below 120°F during normal power operations during design basis ambient summertime conditions (e.g. temperature, solar heat gain, wind velocities, etc., see DCD Table 9.4-1). The historical meteorological data for the COL applicant's site will provide the bases for these worst case ambient conditions. Describe how the startup testing described in Section 14.2 will accomplish this. If it does not, describe how the startup testing described in Section 14.2 will be augmented to demonstrate the requirement.

In addition, given the fact that the Low Volume Purge System will not be used to satisfy the heating and cooling needs of the Containment during normal power operations, the staff requests additional information to clarify the intent of the COL action statement contained in DCD subsection 9.4.6.2.4.1. The statement reads "The COL Applicant is to determine the capacity of cooling and heating coils that are affected by site specific conditions." More specifically, what criteria is the COL applicant to use in the sizing of two Low Volume Purge System's air handling units heating coils and cooling coils? The staff requests that the applicant amend the DCD to clarify this criteria.