

# REQUEST FOR ADDITIONAL INFORMATION 806-5985 REVISION 3

8/18/2011

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 09.01.02 - New and Spent Fuel Storage  
Application Section: 9.1.2

QUESTIONS for Balance of Plant Branch 1 (AP1000/EPR Projects) (SBPA)

09.01.02-25

DCD Tier 2 Section 9.1.2.1 states that the spent fuel rack is design to provide adequate natural coolant circulation to remove residual decay heat from the stored fuel. This statement is in accordance with the recommendations of SRP 9.1.2.III.2.I which states that:

*1. The thermal-hydraulic analysis of the flow through the spent fuel racks is adequate for decay heat removal from the spent fuel assemblies during all anticipated operating and accident conditions. Furthermore, the analysis should show adequate natural circulation of the coolant during all anticipated operating conditions, including full core-offloads during refueling, to prevent nucleate boiling for all fuel assemblies.*

The applicant has not provided the thermal analysis report that would demonstrate that the spent fuel racks has been design to provide adequate natural circulation of the coolant. The staff understands that the spent fuel racks are typically a purchased item and the thermal analysis report may not be completed until a particular spent fuel rack is chosen.

If the DCD applicant has chosen a specific rack design, the staff requests the applicant to provide the confirmatory thermal analysis report that would confirm that the spent fuel rack has been design with adequate natural circulation of the coolant to remove residual decay heat from the stored fuel.

If the DCD applicant has not chosen a specific rack design, the staff requests the applicant to create a COL information Item, or an ITAAC, that would instruct the COL applicant to provide the confirmatory thermal analysis report that would confirm that the spent fuel rack has been design with adequate natural circulation of the coolant to remove residual decay heat from the stored fuel.