REQUEST FOR ADDITIONAL INFORMATION 619-4863 REVISION 2

8/13/2010

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 19 - Probabilistic Risk Assessment and Severe Accident Evaluation
Application Section: 19

QUESTIONS for PRA and Severe Accidents Branch (SPRA)

19-443

The refueling water recirculation pumps are in RAP and have a RAW of 12 for Large External Leaks and a RAW of 3.9 for Fail to Start (CCF) and Fail to Run (CCF). The refueling water recirculation pumps are used to transfer boric acid water from the RWSP to the SFP. Looking at page 23A-9 of the US-APWR PRA, it appears that the refueling water recirculation pumps are located next to each other in the same fire zone. Please clarify if the refueling water recirculation pumps are in separate fire zones or fire compartment boundaries or if they are in the same fire zone. If the refueling water recirculation pumps are not in separate fire zones or in separate fire compartments and a fire incapacitates both pumps, please explain how redundancy and diversity are shown. Please explain if the common cause failure of both refueling water recirculation pumps due to fire is analyzed in the PRA and, if so, where.