

**REQUEST FOR ADDITIONAL INFORMATION 823-5933 REVISION 3**

9/6/2011

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)

19-549

Based on the US-APWR DCD Chapter 8, it states, "In the US-APWR design, power to the shutdown buses can be restored from the AAC sources within 60 minutes." Given a SBO event in POS 4-3 and POS 8-1, the time to RCS boiling is 20 minutes and 40 minutes respectively, as documented in the revised response to RAI 19-493. Therefore, following restoration of the AAC source or offsite power, the RCS could be boiling. The event tree for loss of offsite power with 1E CTG failure credits RHR recovery without the need for standby RCS injection. The staff believes that RCS injection from either charging or SI will be needed to restore RCS level and to permit recovery of the RHR function. Please modify the event trees to require SI or charging before RHR recovery. This change will require the loss of offsite power events to be resolved and requantified. Please update the DCD and the PRA as appropriate with the revised loss of offsite power results.