

REQUEST FOR ADDITIONAL INFORMATION  
US-APWR Topical Report: Non-LOCA Methodology, MUAP-07010-P(R1)

3/08/11  
Mitsubishi Heavy Industries  
Docket No. 52-021  
SRSB Branch

The following Requests for Additional Information (RAIs) are the result of a recent effort by the NRC staff to maintain regulatory and technical consistency across design centers in the area of Rod Ejection Accident (REA) methodology and analysis results. This RAI will be referenced as the tenth set of RAIs for this Topical Report.

**REA-8:** Current MHI REA methodology adds sufficient positive reactivity to reach the high flux trip of 118%. While this is conservative in terms of prompt energy deposition, it may not be conservative for calculating the percentage of rods entering DNB. The staff is requesting that MHI perform an analysis or evaluation where the positive reactivity addition gets very close but does not reach the 118% high flux trip setpoint (i.e., 117%). The staff would like to know what setpoint trips the reactor, the trip time and the percentage of rods in DNB. The staff would also like to know what, if any, signal would isolate containment and the time isolation would occur.