

**Additional Issues of Importance for MSPI
from the SPAR Model / Plant PRA Model Comparisons**

As requested, I reviewed Gareth Parry's notes "Identification of Issues of Importance for MSPI" dated October 20, 2004 for the MSPI PRA Quality Task Group against results from the MSPI SPAR Model / Plant PRA Model comparison effort. The list of issues in the Parry notes are for the most part complete. I do have have a few additions, however.

BWR HPCI/HPCS/FWCI

MSPI results in one case seemed to be greatly affected by the success criteria assumptions of whether or not injection and min-flow MOVs that changed state to prevent dead-heading had to change back to prevent flow diversion.

BWR Cooling Water

To the paragraph starting "In some cases..." I would modify it to read "Inappropriately excluding their contribution or significantly underestimating the frequency of their loss..."

The same would hold true for PWR Cooling Water.

PWR High pressure safety injection

I would include:

- Treatment of spurious operation and low probability failure modes of single-failure valves (e.g. undetected valve-stem separation on locked open manual valves)

based on one plant PRA model.

PWR AFW

I would add:

- Treatment of loss of DC power initiators.

A loss of DC bus has the potential to initiate a transient / loss of offsite power (e.g. circuit breakers don't operate), cause loss of normal heat removal (no main feedwater), defeat an entire division of emergency safeguards (HPSI, AFW, pressurizer PORV), often resulting in only one motor-driven AFW pump available to mitigate the transient absent recovery of DC power. The CDF from this initiator is highly dependent on the frequency and modeling of recovery of DC power.

PWR Cooling Water

In addition to the comment above regarding initiator frequency for BWR, I would add:

- Assumptions regarding the effect of adverse environment (e.g. salt water) on the standby valve failure to operate probability (as compared to say a "clean" closed-cycle system such as condensate or even RCS system).