Geo

1) Base the critical decay time on maximum decay power, rack type, and minimum baseplate hole size, as done for Reg Analysis for GI 82 (NUREG-1353); BNL's SAs in SFPs (NUREG/CR-4982); SNL's SF heatup following loss of water (NUREG/CR-0649)

PWR: 700 days - high density rack, 5" baseplate hole, AND 6 kW/MTU
BWR: 180 days - cylindrical (low density) racks, 1.5" baseplate hole, AND 14 kW/MTU

- All the of above parameters must be met or be more conservative, otherwise a site-specific analysis should be performed

- Critical decay time: shutdown time necessary to reach a decay power level below the power for self-sustaining oxidation. The cooling time to prevent clad failure is at least 20% longer.

- SFUEL1W code limited for computation of BWR high density racks and therefore not included

- Non-conservatisms: **assumes perfect ventilation**; based on 12 month cycle; uses an average decay heat for the highest decay heat group

  Conservatisms: assumes all highest heat fuel in the middle of configuration

2) see it BNL/SNL report(s) ~~need to~~ can be updated ~~including~~ to include:
   1) current high density fuel racks for both BWRs
   2) current high burnups
   3) fuel cycles 18 - 24 months
   4) further consideration for lack of ventilation

3) Enhance SHARP code for future use for site-specific analysis

George - I don't know that we want to hander this out but these are things I think could/should be done.

Diane.

Q110