

## Homework #8

### Web Problem #8

## Nuclear Reactor Design and Analysis

1. **TEAM PROBLEM:** Determine what six (6) “most significant” design basis accidents should be included in your reactor design. You will only be evaluating three (3) of these events for your final presentation, but I’d like to see a slightly more comprehensive list for this homework. Further, please complete a sequence analysis for each of these events (qualitatively), indicating in as much detail as possible, what will be happening during these events. Finally, as a result of this qualitative analysis, consider what safety systems should be added to mitigate each of these 6 design basis accidents. Perform basic hand calcs to verify that the proposed safety systems are viable.
2. **TEAM PROBLEM:** Based on the results in problem 1 for the most significant design basis accident, design, iterate, and install (mentally and theoretically) a safety system that will mitigate the impact of the design basis accident selected.