

22.39 Integration of Reactor Design, Operations, and Safety  
George E. Apostolakis  
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Problem Set #4  
Due: October 11, 2006

The Surry Power Station is a two-unit site. Each unit, designed by the Westinghouse Corporation, is a three-loop pressurized water reactor (PWR) rated at 2441 MWt (788 MWe) and is housed in a subatmospheric containment. Located on the James River near Williamsburg, Virginia, Surry 1 started commercial operation in 1972.

A risk assessment for Surry 1 was conducted as part of the NUREG-1150 studies (<http://www.nrc.gov/>).

Write an executive summary addressing the following questions:

- What are the major numerical results for the important end states?
- What are the dominant accident sequences for each of these end states?

Your summary should not be longer than three single-spaced pages (including tables and figures, if any).