
Operational Reactor Safety

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Professor Andrew C. Kadak
Professor of the Practice

Simulation Exercises of Accidents and Transients Lecture 14



Massachusetts Institute of Technology

Department of Nuclear Science & Engineering

Prof. Andrew C. Kadak, 2008

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Using Prism Code

4 Loop PWR Simulator

- Accidents
 - Stuck open PORV
 - Stuck open PORV with feedwater blocked
 - Steam Generator Tube Rupture
 - Steam line break – 1 and 2 lines
 - ATWS events
 - Rod Ejection
- Transients
 - Turbine Trip
 - Loss of main coolant pump

Task for Class

- Predict what will happen in terms of pressure, temperature, sequence of events, final safety status.

- Homework

Go to recitation section and learn how to use PRISM and then run transient simulations filling out data sheets.

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