Operational Reactor Safety
22.091/22.903

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Simulation Exercises of
Accidents and Transients
Lecture 14

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.

22.091 Nuclear Reactor Safety

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