Power decrease Final presentation SH2705

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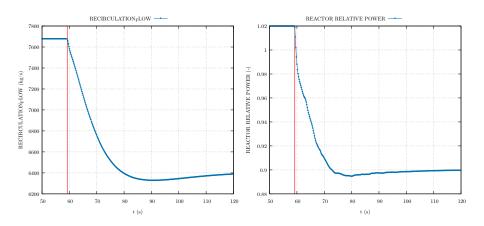
KTH
Royal Institute of Technology, Stockholm

29. 5. 2023

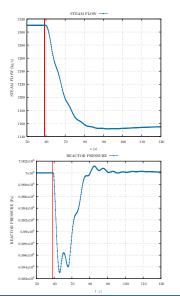
Event description

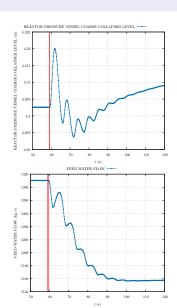
- Start of the transient:
- Setpoint value to 0.9 input for power control
- Rotation speed of recirculation pumps lowered (automation)
- Pressure drop, gets back
- Water level new asymptotic value

How the power is decreased?

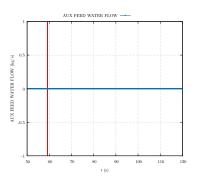


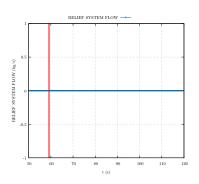
Oscillations



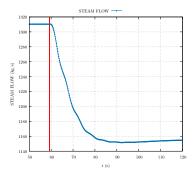


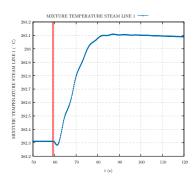
Interesting graphs





Steam generation





Lower power -> lower steam flow -> Steam more dryier

What is (not) activated

- AOO
- Standart procedure
- Adjusted power via recirculation flow
- Ajusted feed water flow
 - Lower heat needed for removal
 - Reactivity coefficients Cannot go up, but also cannot go down
 - Feed water flow modulated using control logic

- HPI (Auxilliary system) -Not activated
- Relief system Not activated
- Core spray system (LPI)
 - Not activated

Thanks for attention!