


# Simulace provozu JE typu ABWR

Lukáš Čížek, Ondřej Bačo

The background of the slide features a complex, abstract pattern of glowing blue and white light trails. These trails are composed of numerous thin, overlapping lines that create a sense of motion and energy, resembling a network or a dynamic system. The colors transition from bright white at the edges to deep blue in the center, set against a solid black background.

# Obsah

- Jaderné elektrárny ABWR
    - Historie
    - Konstrukce
    - Využití
  - Simulátor
  - Havarijní odstavení
  - Havárie napájecích čerpadel
- 

# Historie

Přímo vychází z BWR

Postupným zjednodušováním

Navržen a licencován 1978

Dnes hlavně v Japonsku

# Specifikace

Tepelný výkon: 3900MW

Elektrický výkon: 1300 MW

Počet regulačních tyčí: 205

Tlak v reaktoru: 7,07 MPa

# Způsob regulace

Regulační tyče

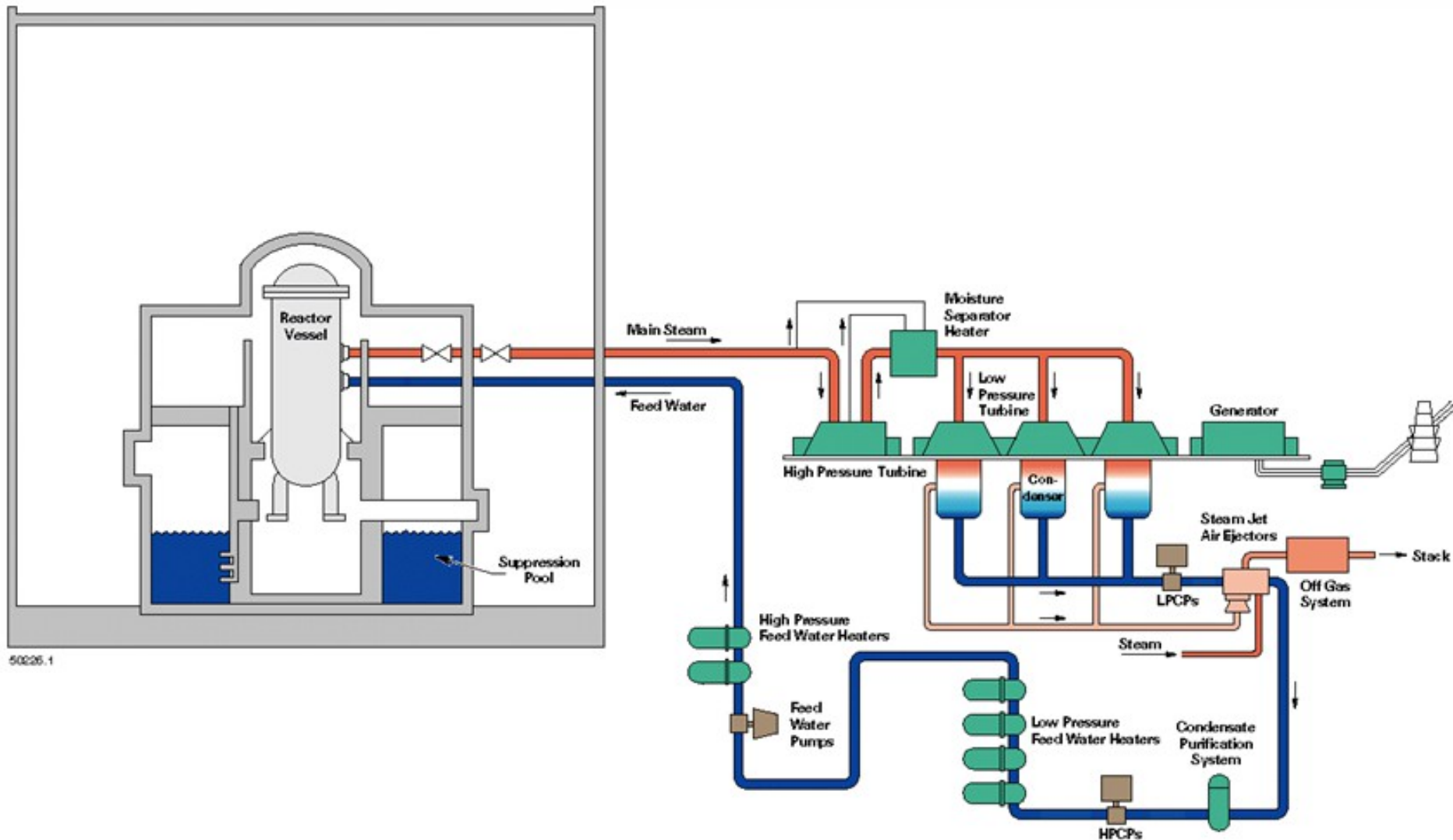
Regulace průtoku smyčkou

Regulace průtoku AZ

Obsah kyseliny borité



# ABWR elektrárna



# Simulátor

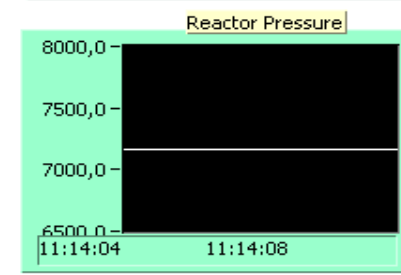
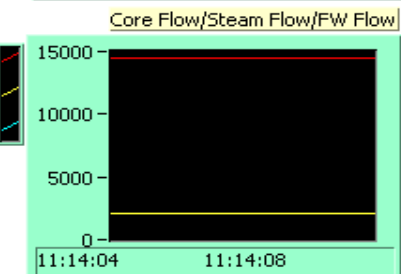
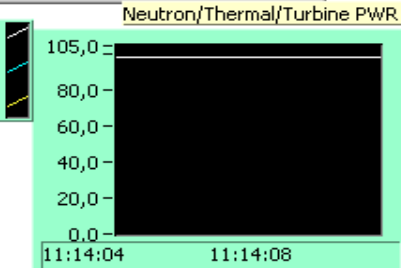
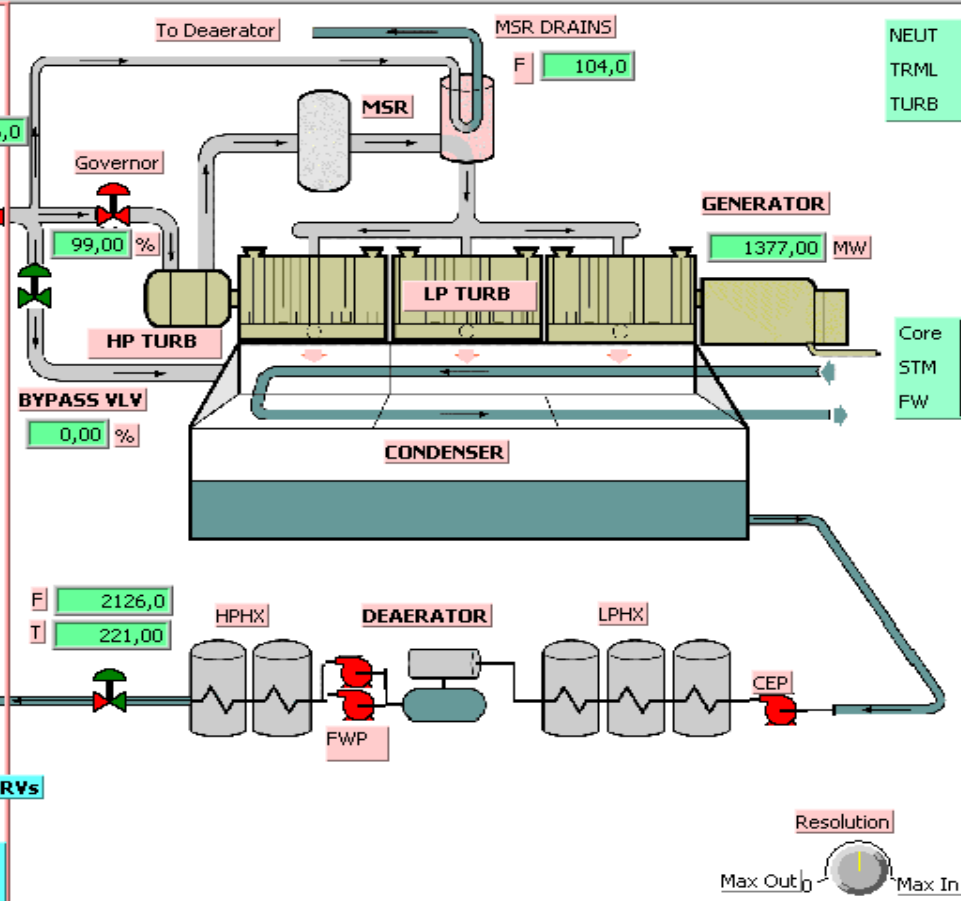
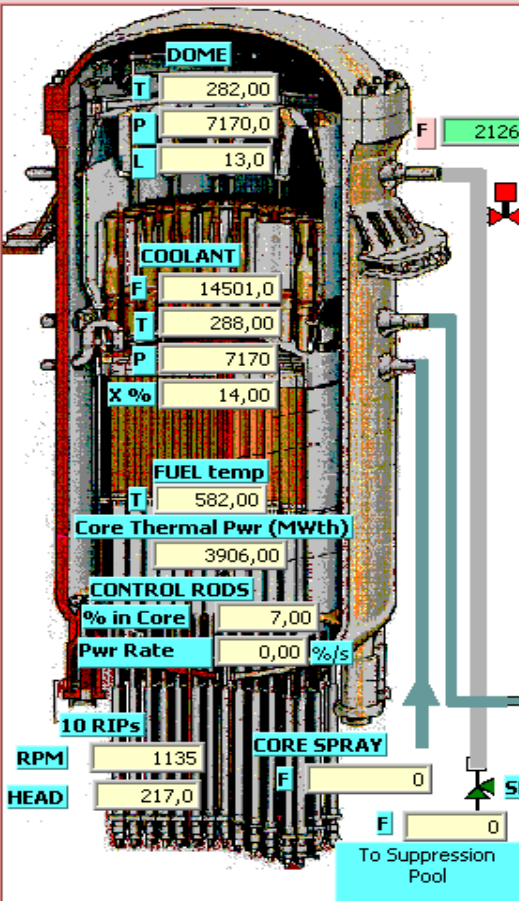
Labview

8

CASSIM

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Reactor Scram	Turbine Trip	Reactor Pres V. Lo	Rods Run-in Req'd	Hi Dryw P/LOCA	Turbine Runback	Gen Breaker Opn
Hi Neut Pwr vs Flow	Reactor Pres V. Hi	Reactor Pres Lo	Reactor Level Lo	Reactor Lvl V. Lo	Lo Turb Fwd Pwr	FW Pump(s) Trip
Reactor Isolated	Reactor Press Hi	Core Flow Lo	Reactor Level Hi	Spdr Gear in Man	Loss RIP Pmp(s)	Malfunction Active



Resolution:  Max Out  Max In

Time Scroll:

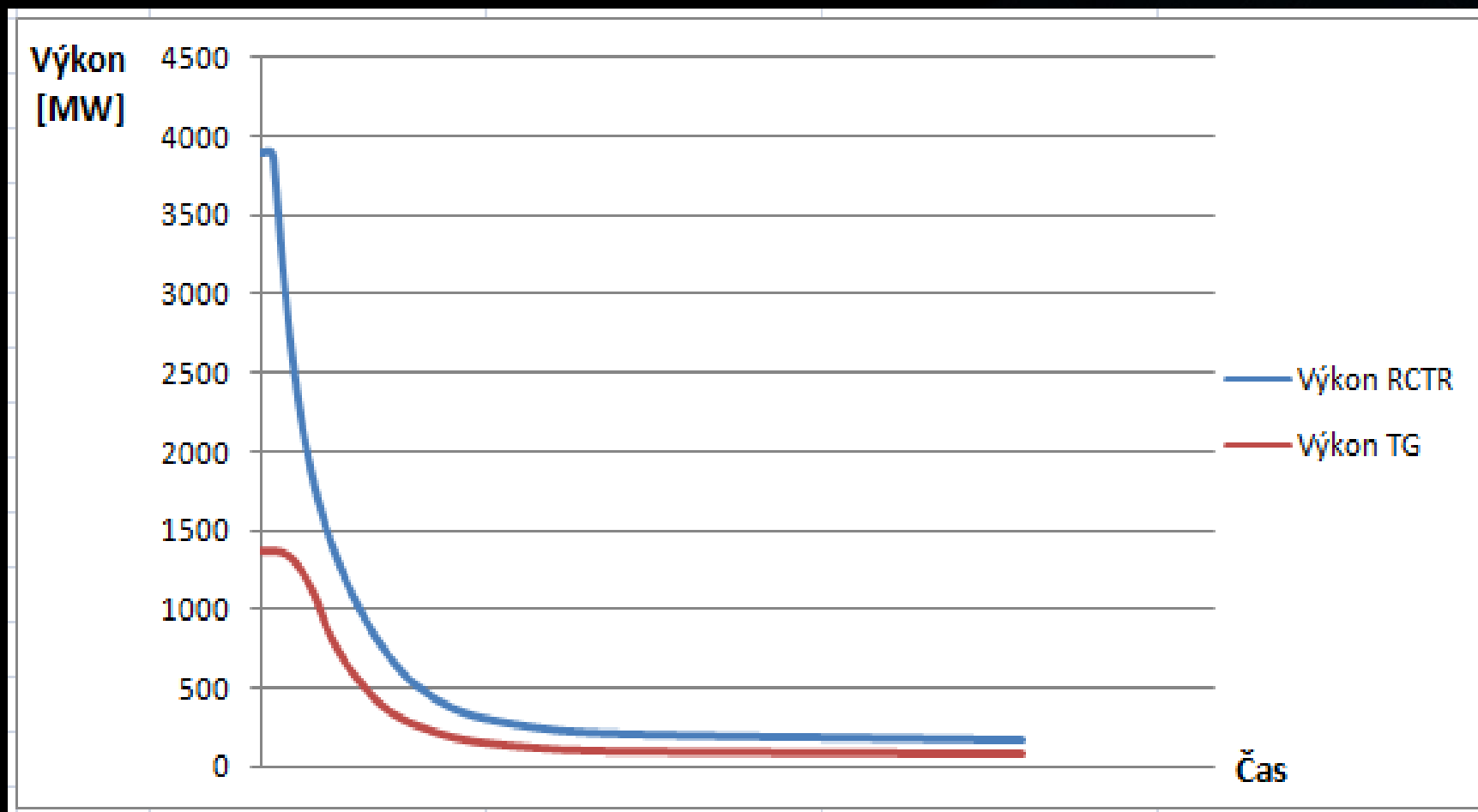
**BWR Plant Overview**

Reactor Trip	Turbine Trip
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Reactor Neutron Pwr (%)	Reactor Thermal Pwr(%)	Generator Output(%)	Reactor Pressure (kPa)	Core Flow (kg/s)	RCTR Lvl	13,0
99,00	99,00	99,00	7170,00	14501,00	BOP STM Flow	2126,0
					FW Flow	2126,0
					Fuel Temp	582,0

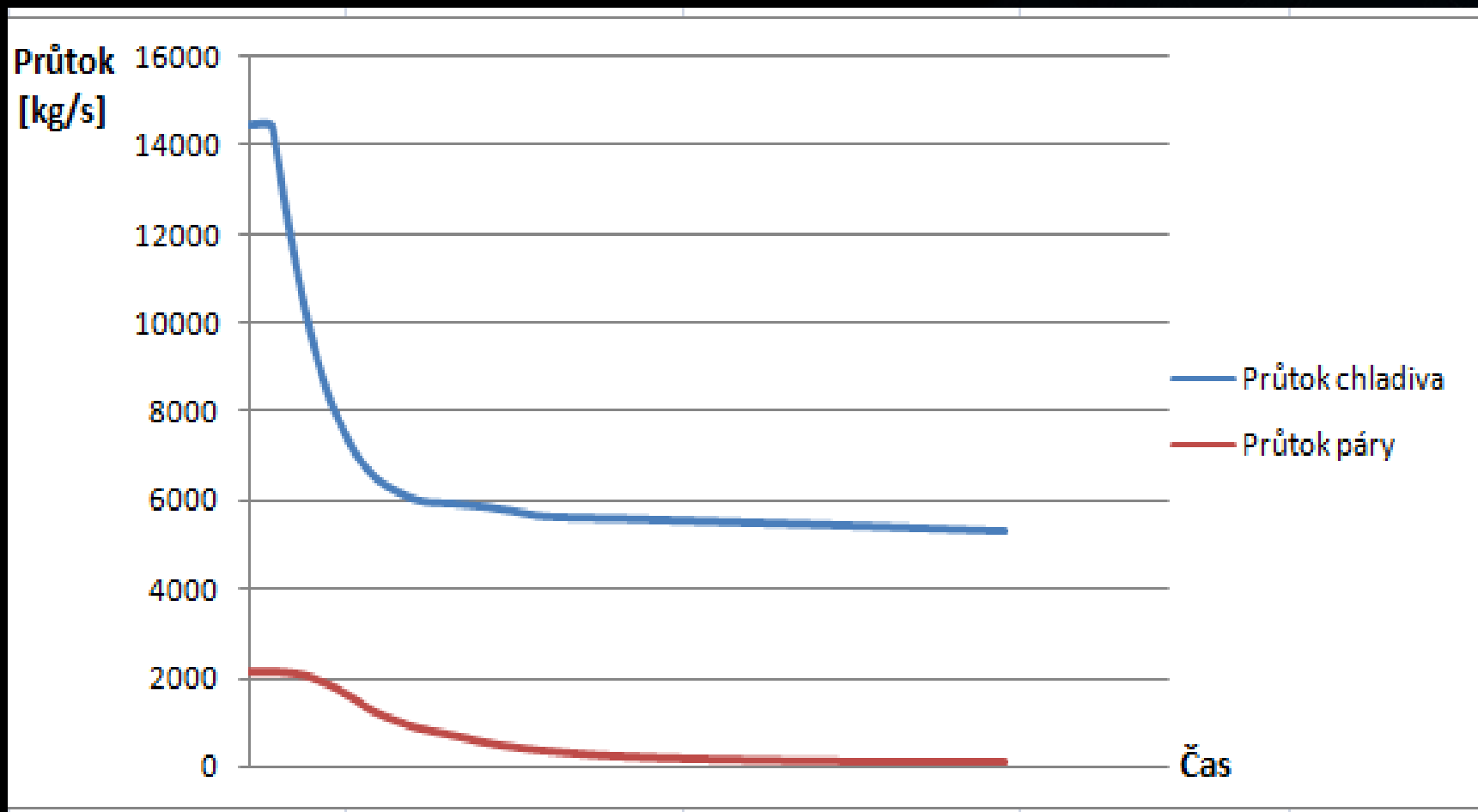
Freeze	Run	Iterate
IC	Malf	Help

# Havarijní odstavení

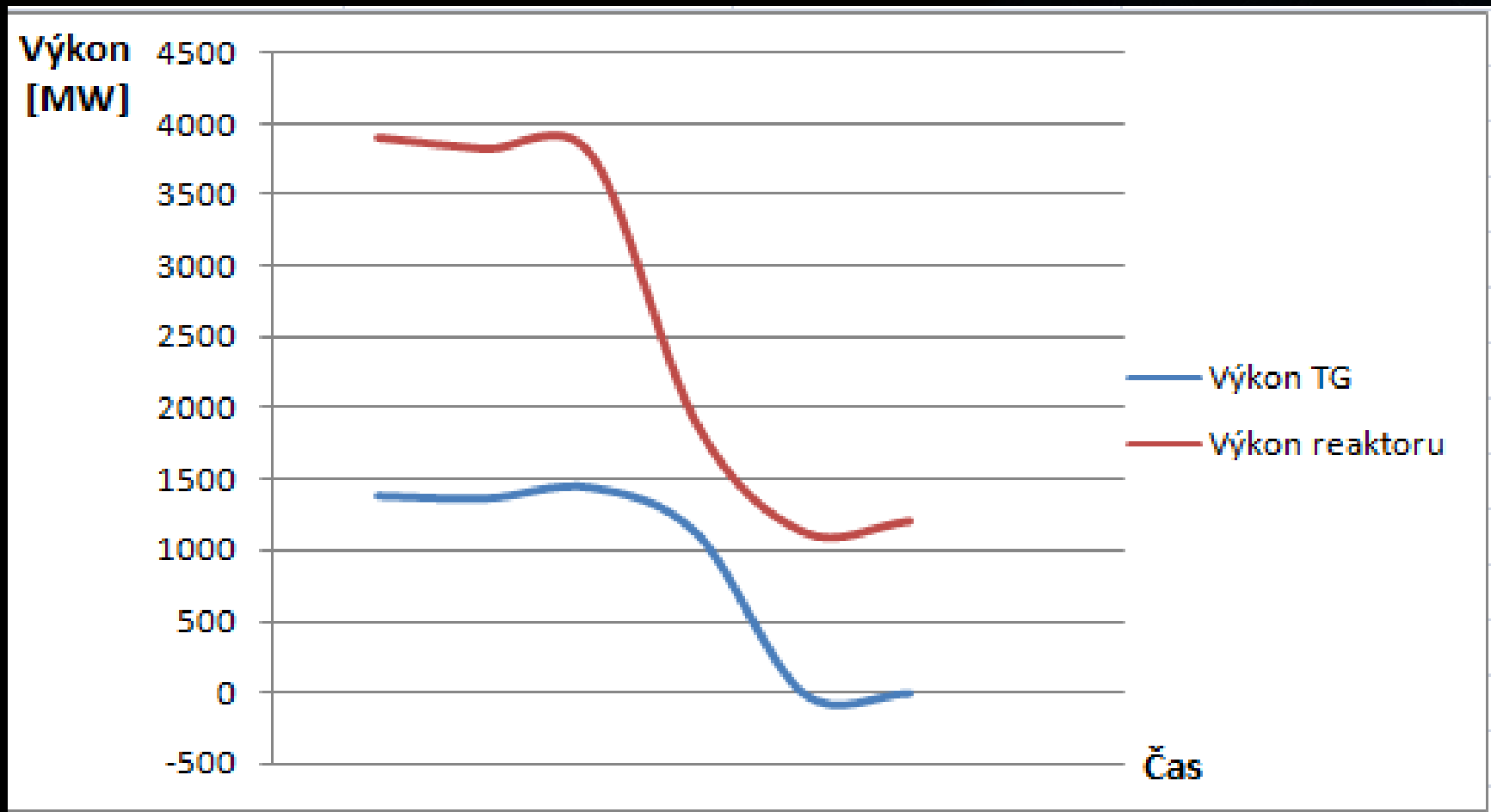




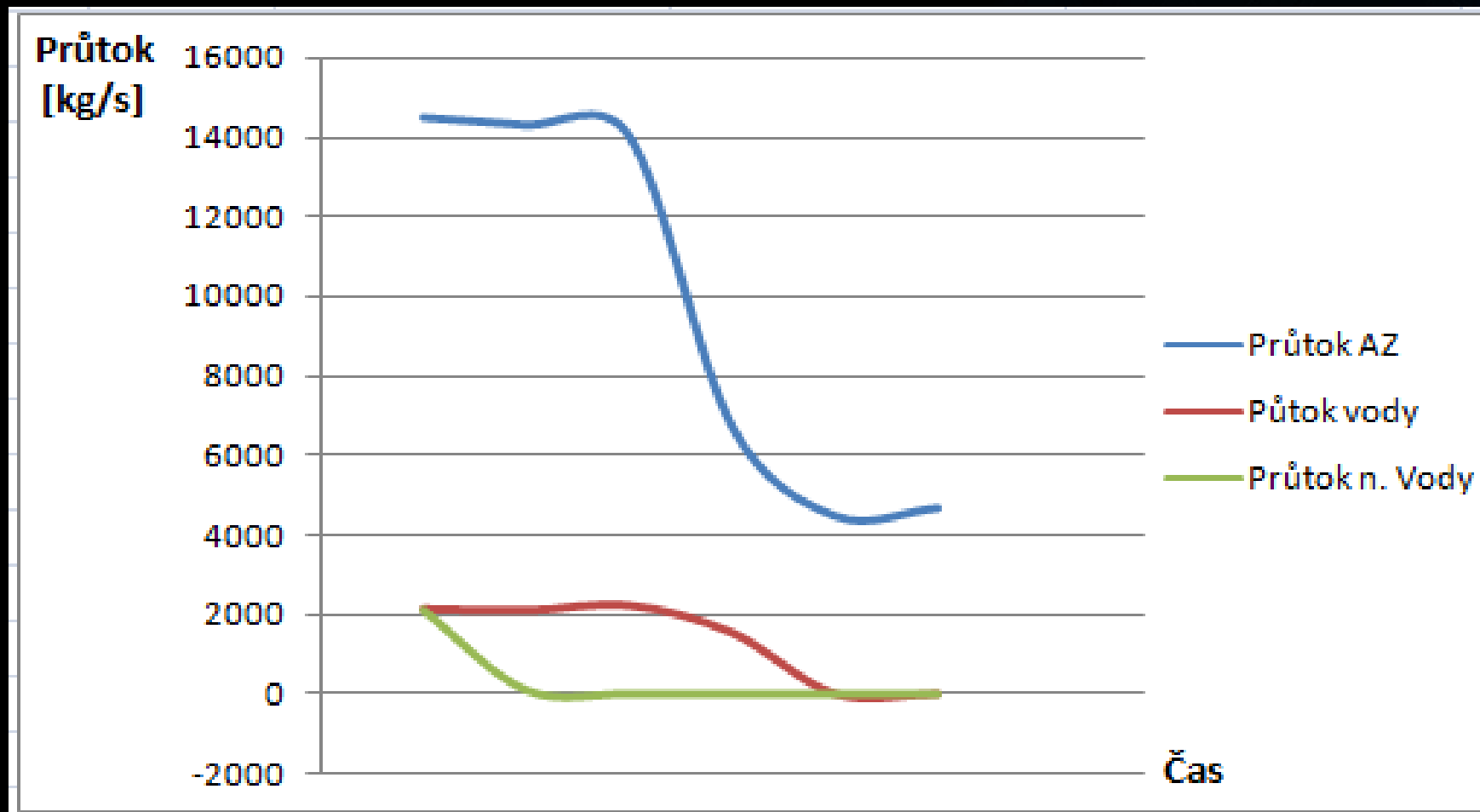
# Havarijní odstavení



# Havárie napájecích čerpadel



# Havárie napájecích čerpadel



# Zdroje

FJFI – Katedra jaderných reaktorů

IAEA *Boiling water reactor simulator* Workshop  
material, IAEA 2003

Děkujeme za pozornost

