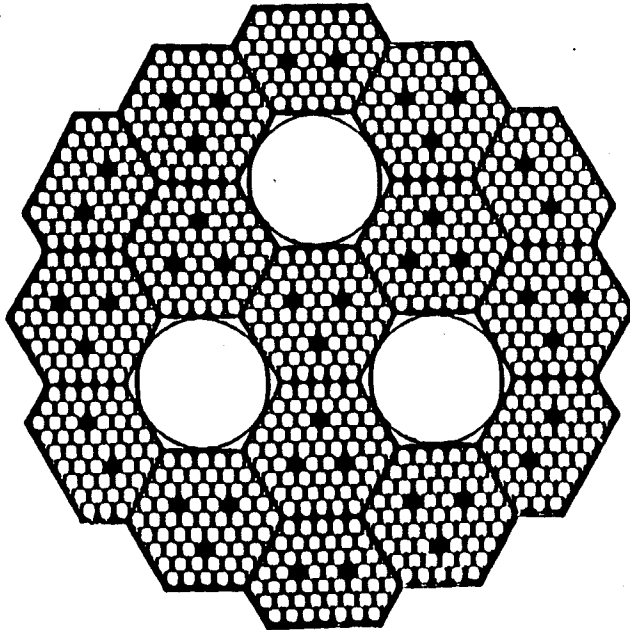




1992

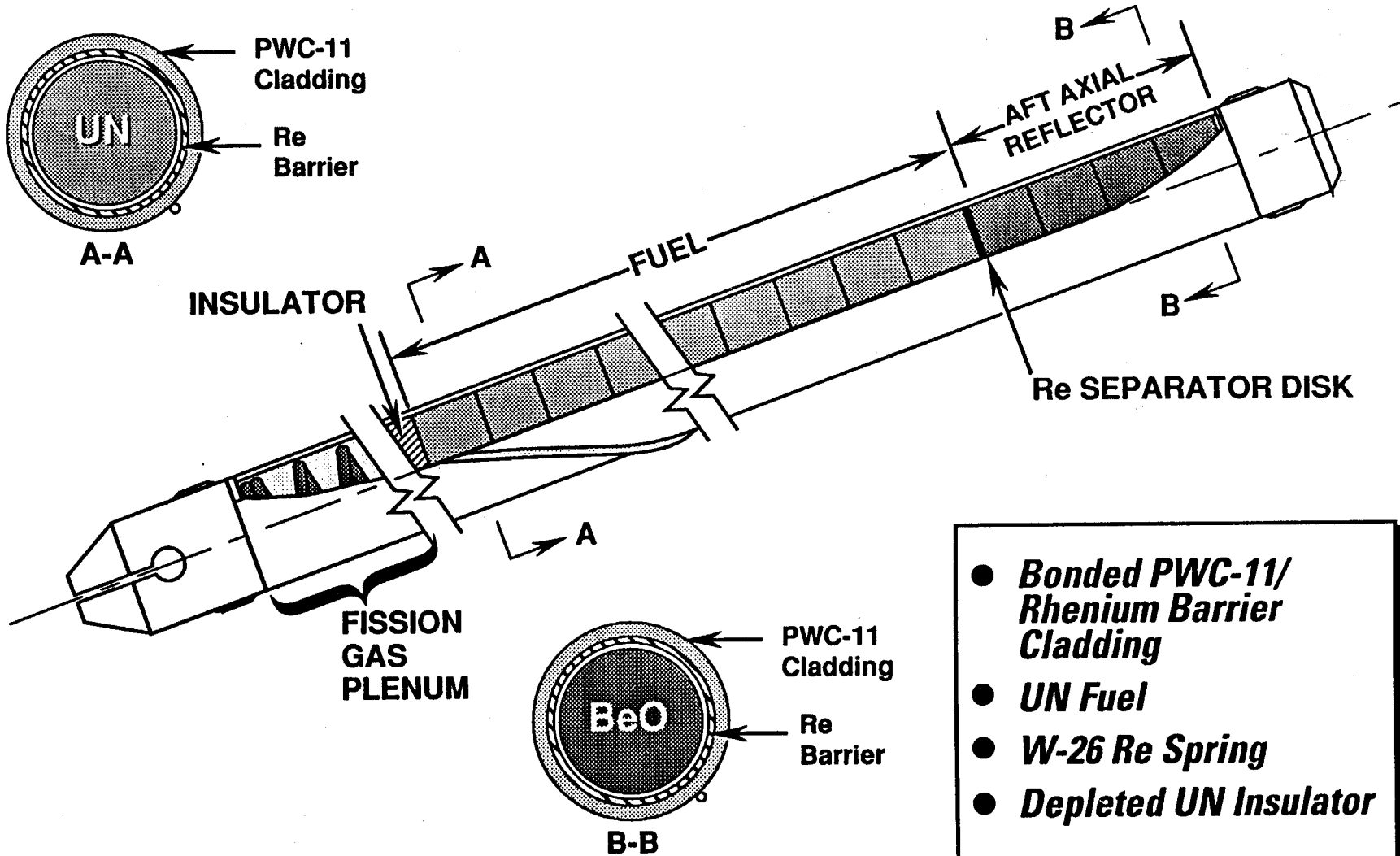
Reactor Core



Design Feature	GFS Design
	(mm)
No. of safety rods	3
Safety rod diameter (mm)	64.0
No. of fuel pins	868
Fuel pin diameter (mm)	8.5
Cladding thickness (mm)	0.25
Liner thickness (mm)	0.13
Plenum length (mm)	185.4
Axial reflector thickness (mm)	190.
Radial reflector thickness (mm)	76.
Honeycomb thickness (mm)	1.0
Core diameter (mm)	345.
Core height (mm)	302.
Vessel outer diameter (mm)	353.
Vessel Length (mm)	1072.
No. of ACL bayonets	42
Peak LOCA fuel temp. (K)	~2000.



GFS Fuel Pin Design

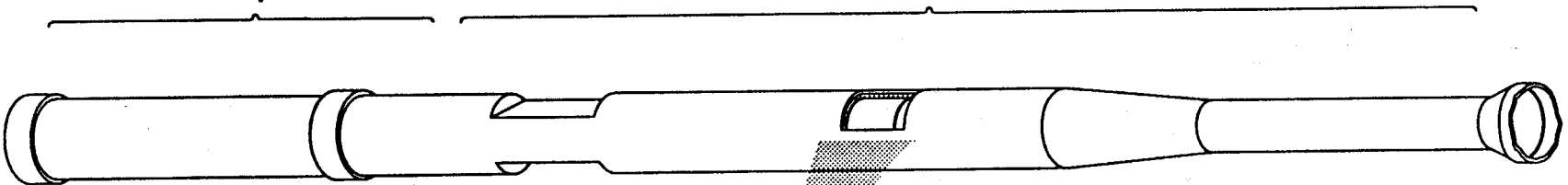




Example Design Margin Analysis – Safety Rod

B_4C

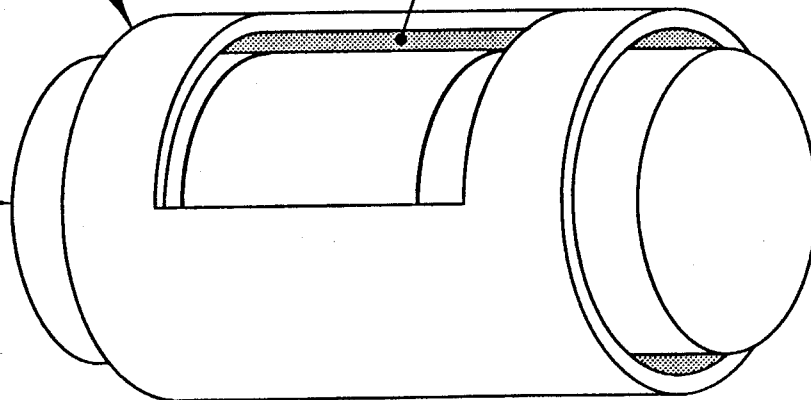
BeO



PWC-11 Tube

Expansion Gap

BeO Compacts



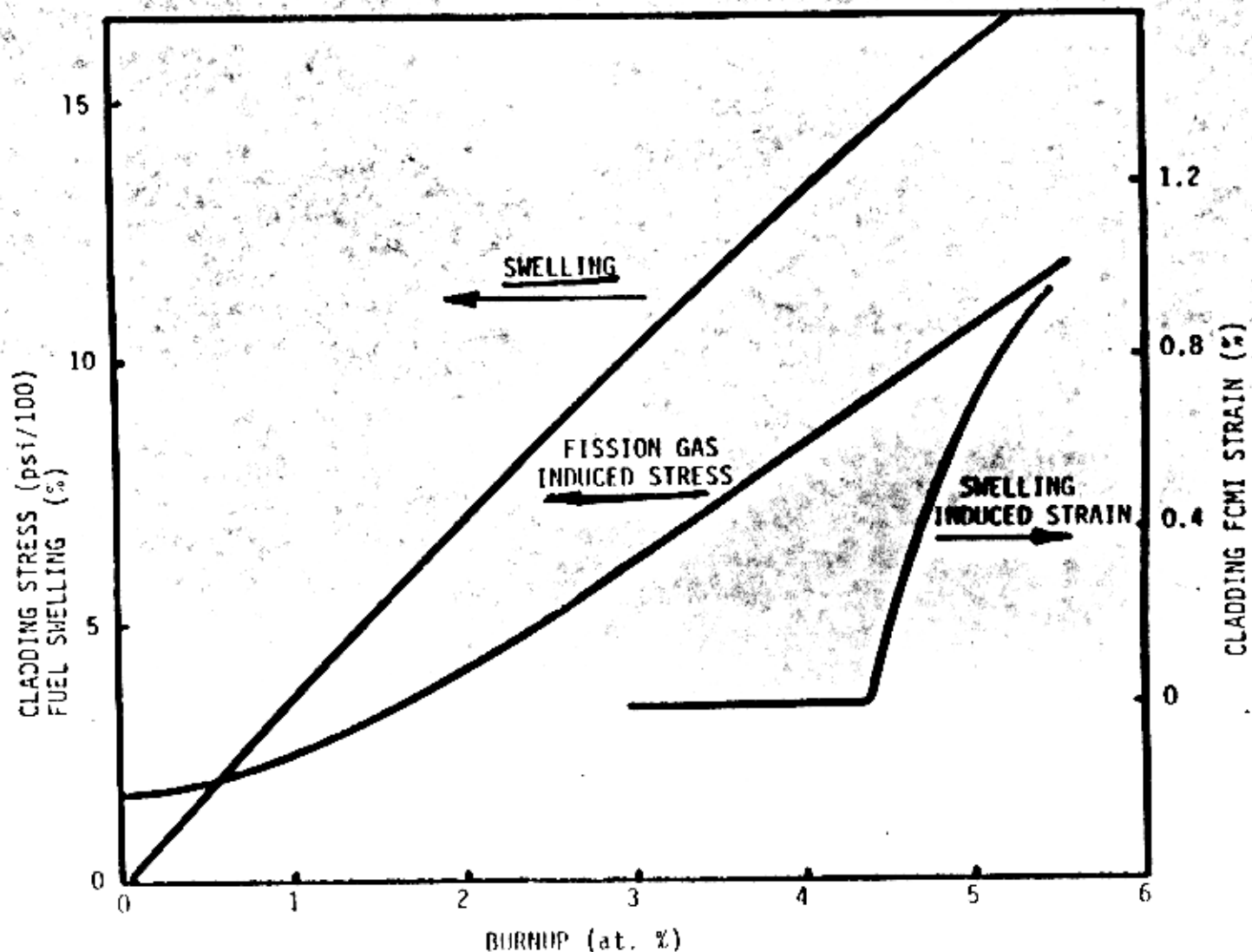
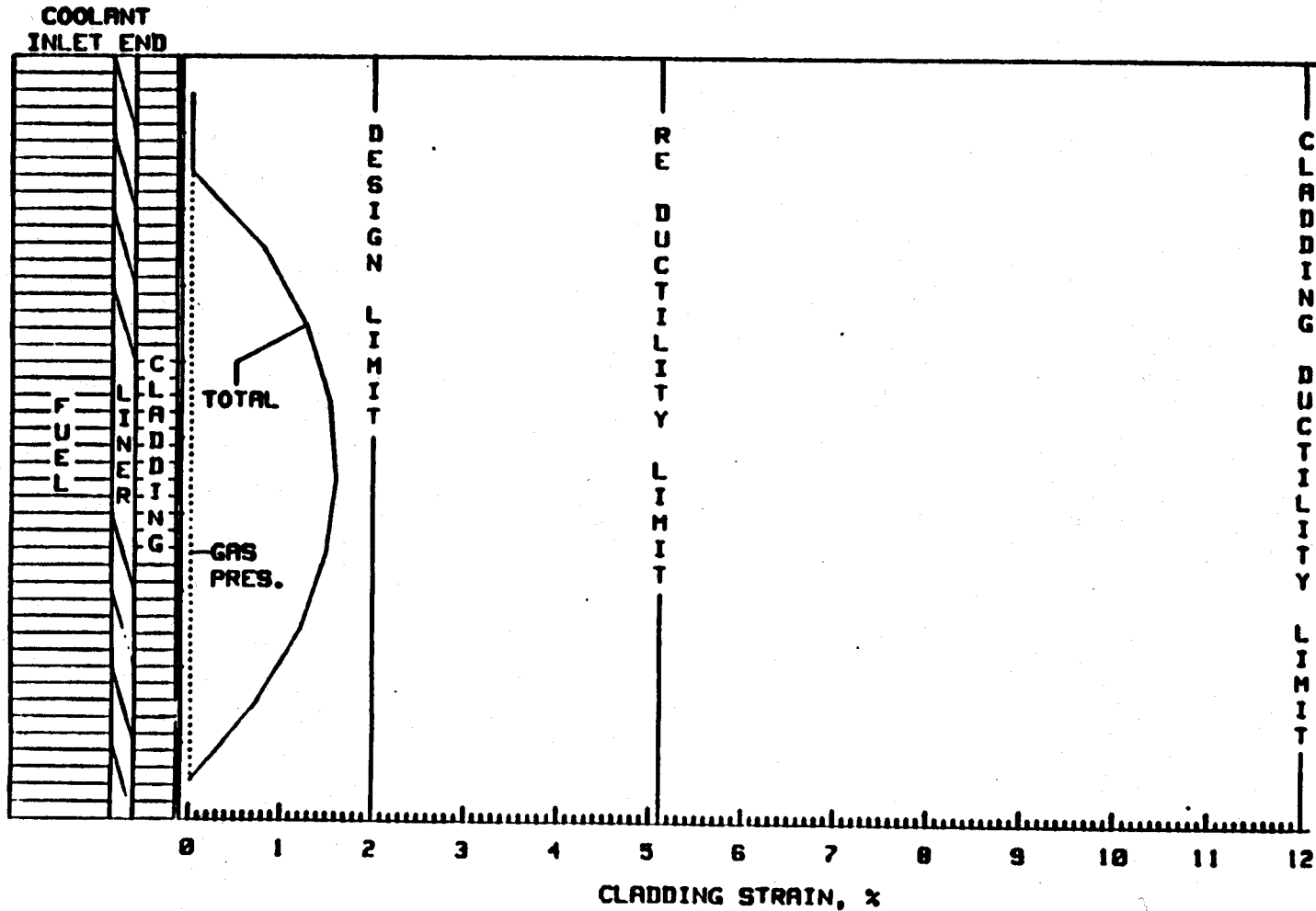


Figure 3-9 Fuel Swelling, Cladding Stress and Cladding Strain Histories in Peak Fuel Pin As a Function of Burnup.

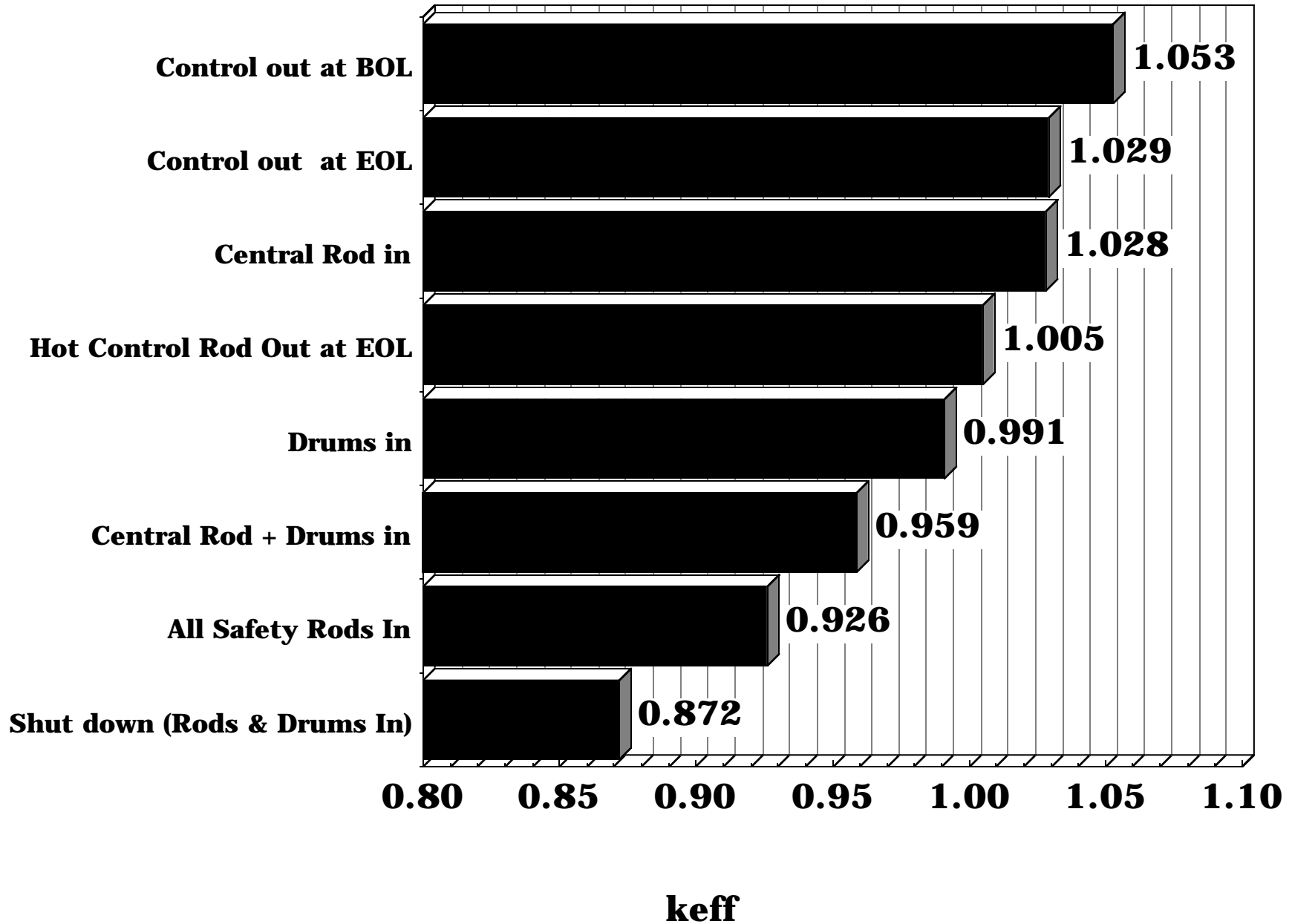


FUEL PIN DESIGN MARGIN

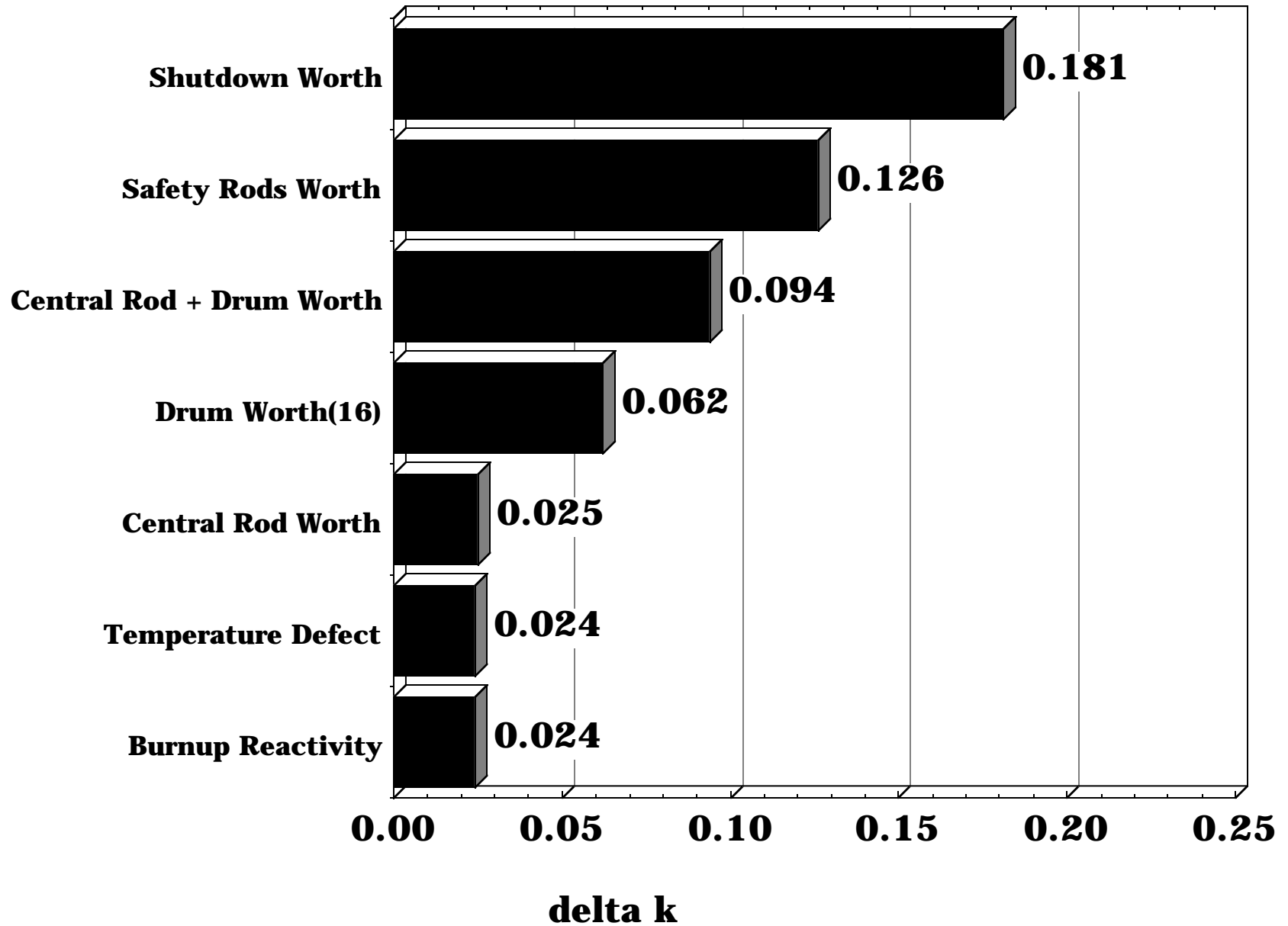
CLADDING STRAIN PROFILE-PEAK PIN

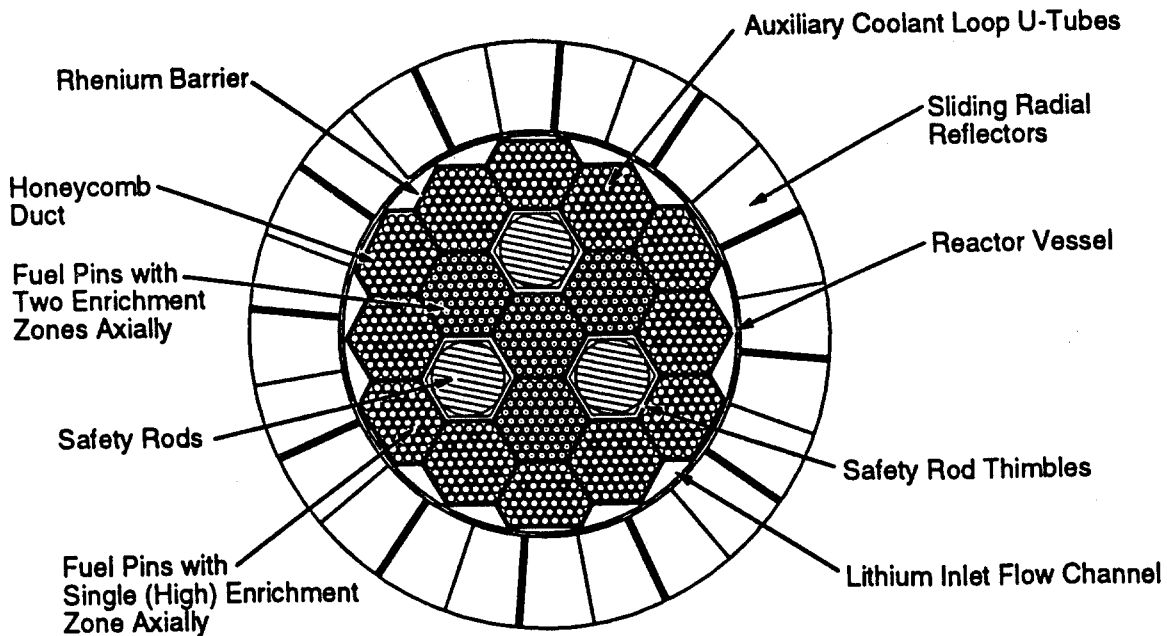
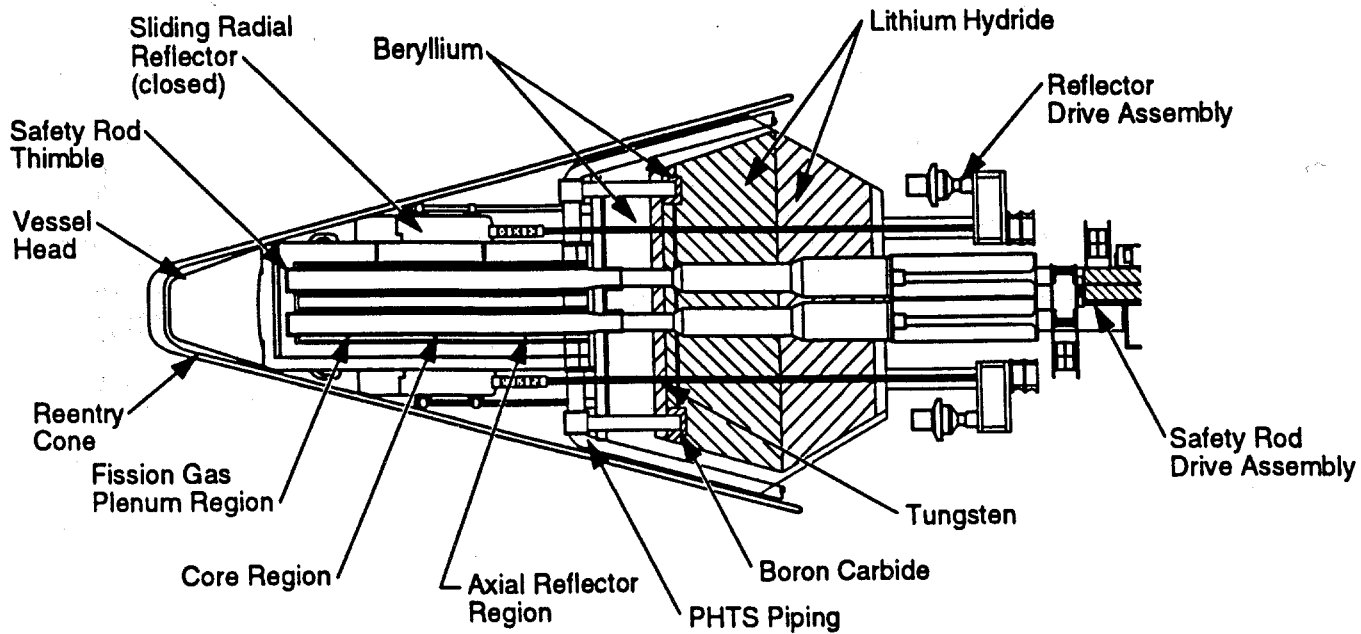


SP-100 Reactor Design Characteristics



SP-100 Reactivity







Reactor Subsystem

