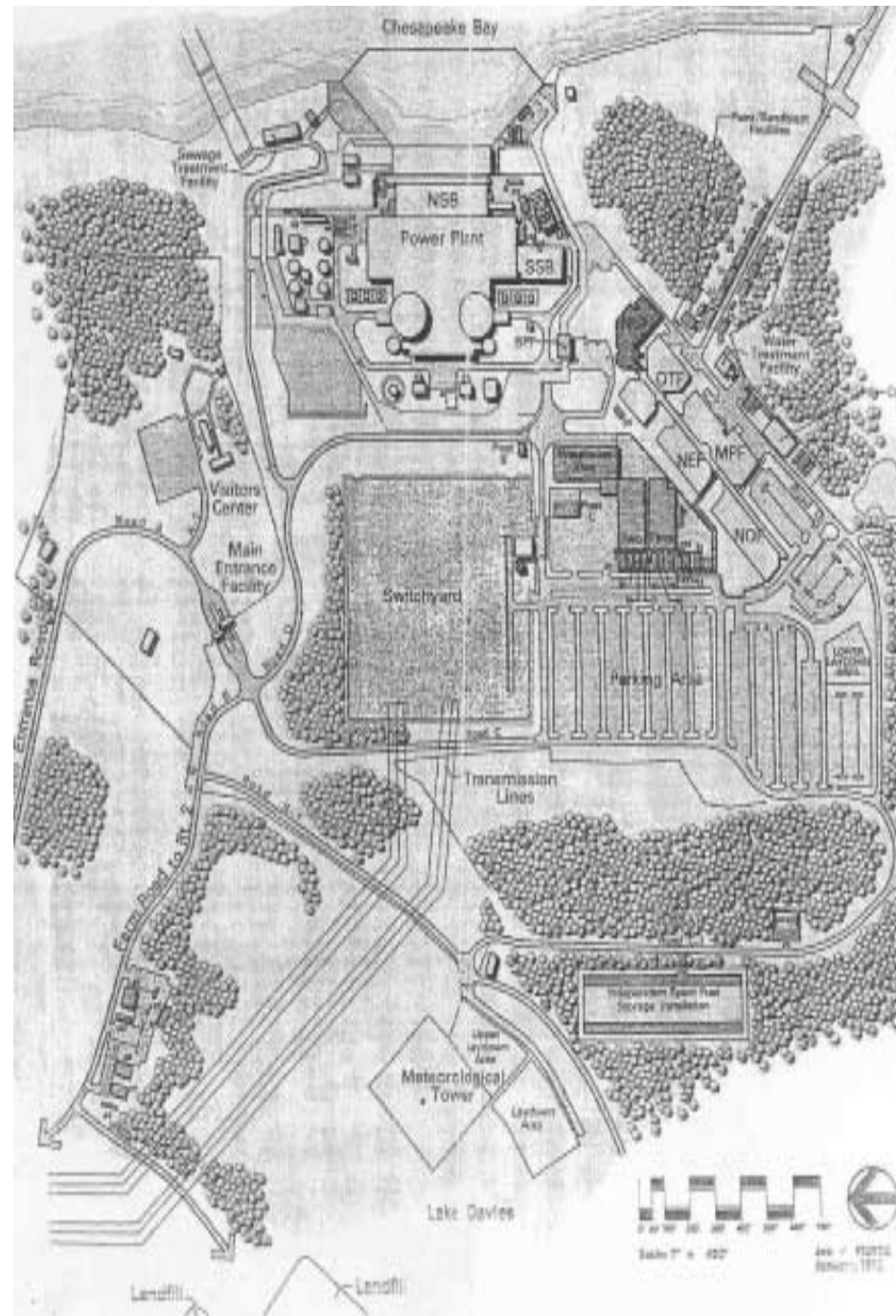




New fuel at the fabricators, standing vertical about 12 feet tall, being inspected.

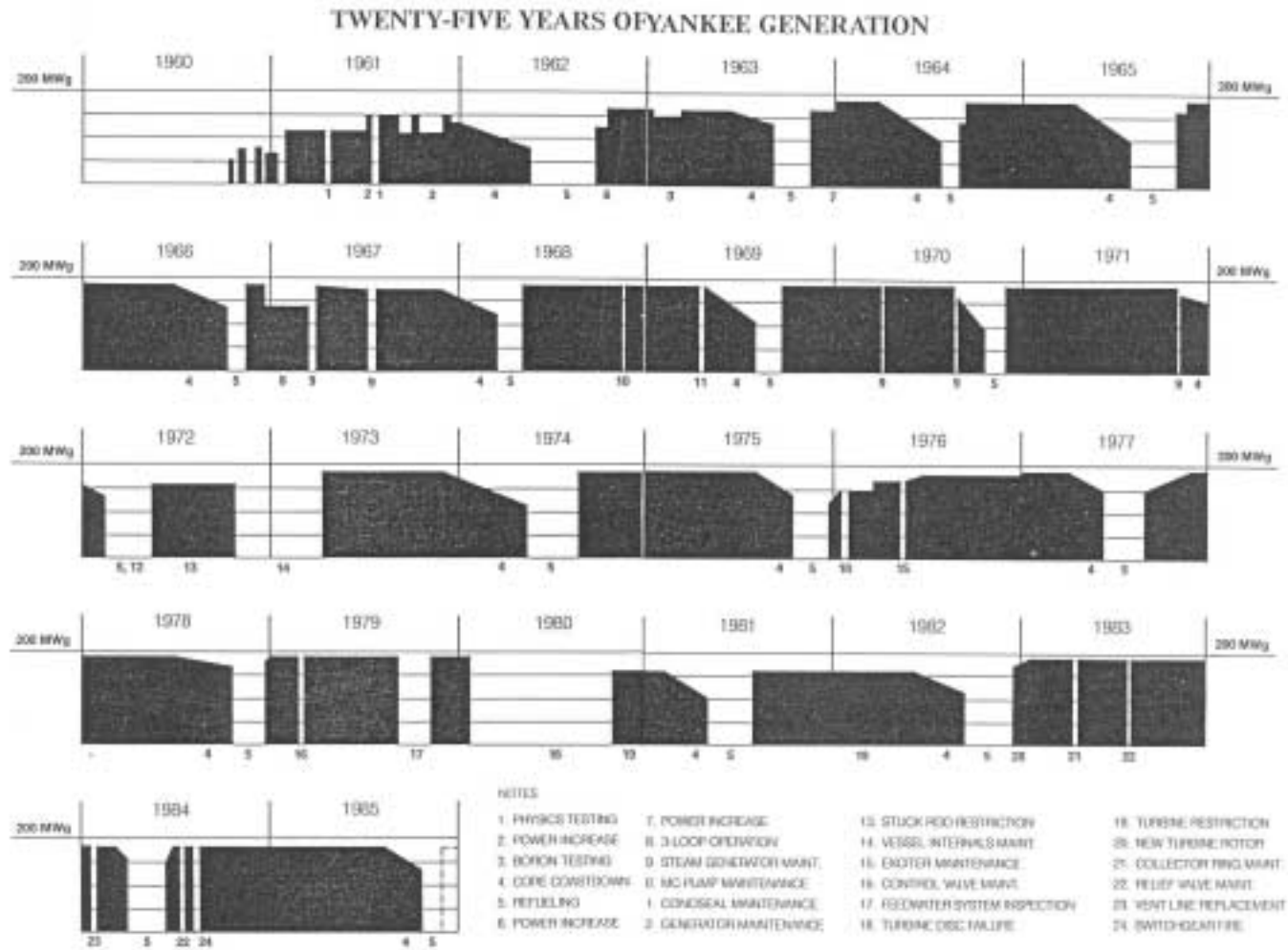
Calvert Cliffs Nuclear Plant Plot Plan



Steam Turbine and Electricity Generator



Yankee Rowe 25 Year Power History



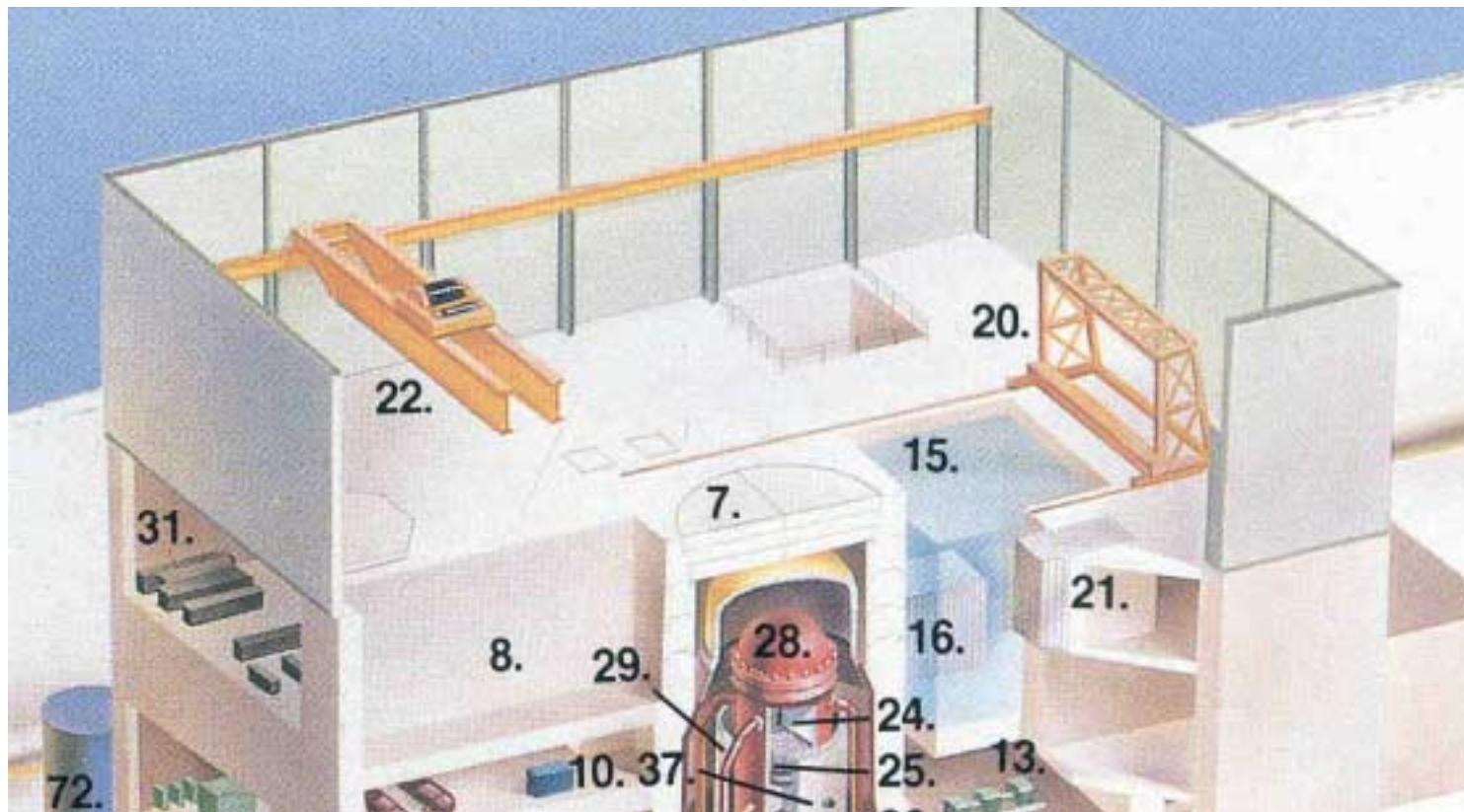
VY (a BWR) from the Air



VY Cutaway Section



VY Re-Fueling Floor



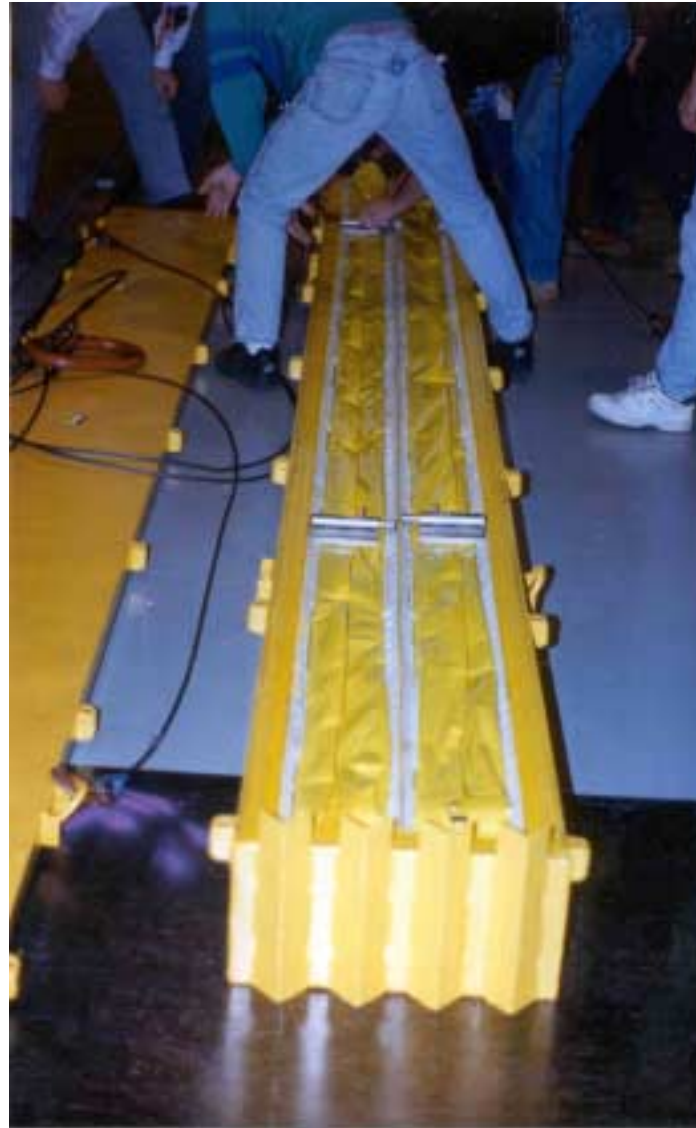
BWR REFUELING FLOOR



BWR NEW FUEL ON FLOOR



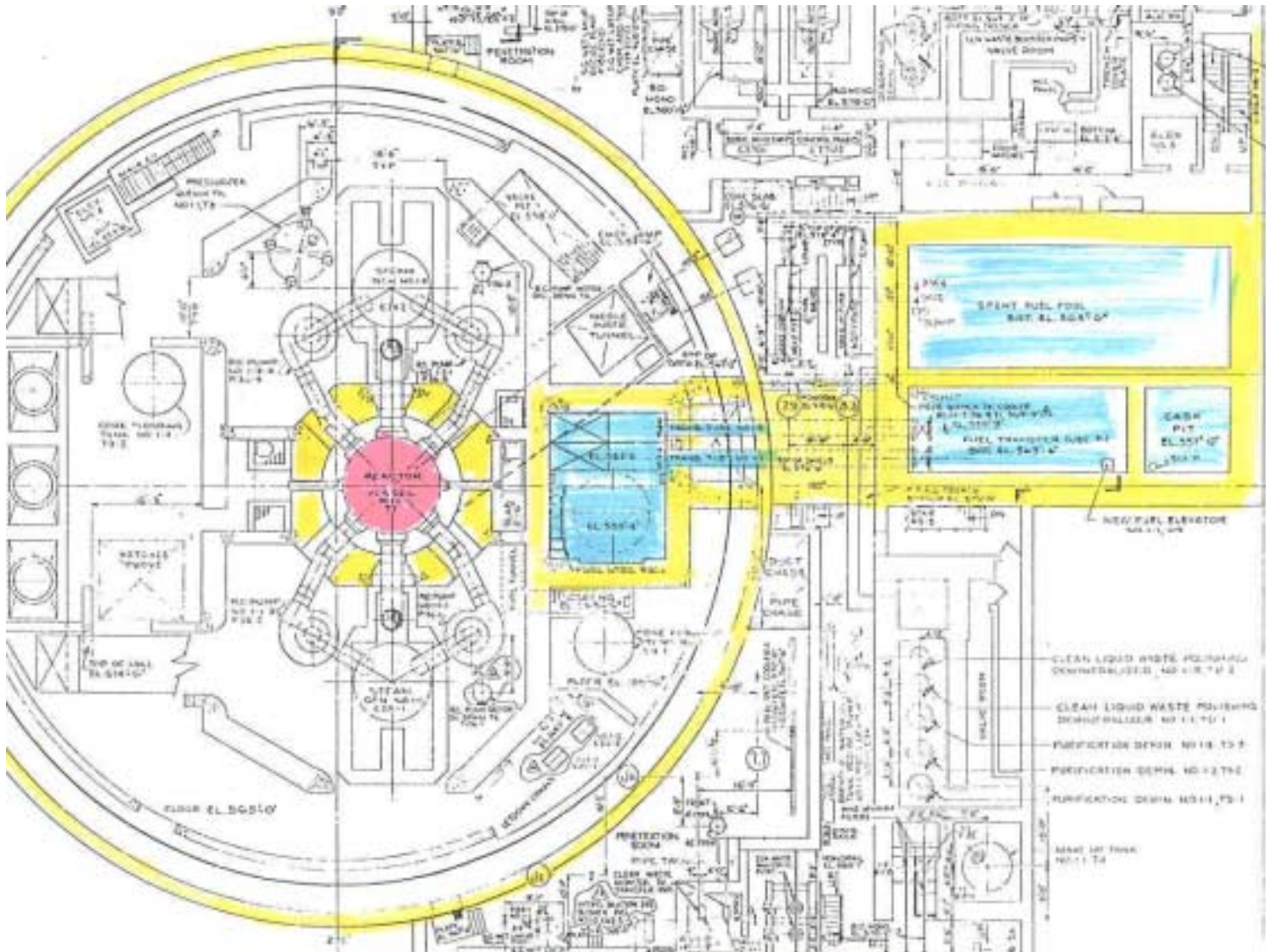
TWO
ASSEMBLIES
BOXED



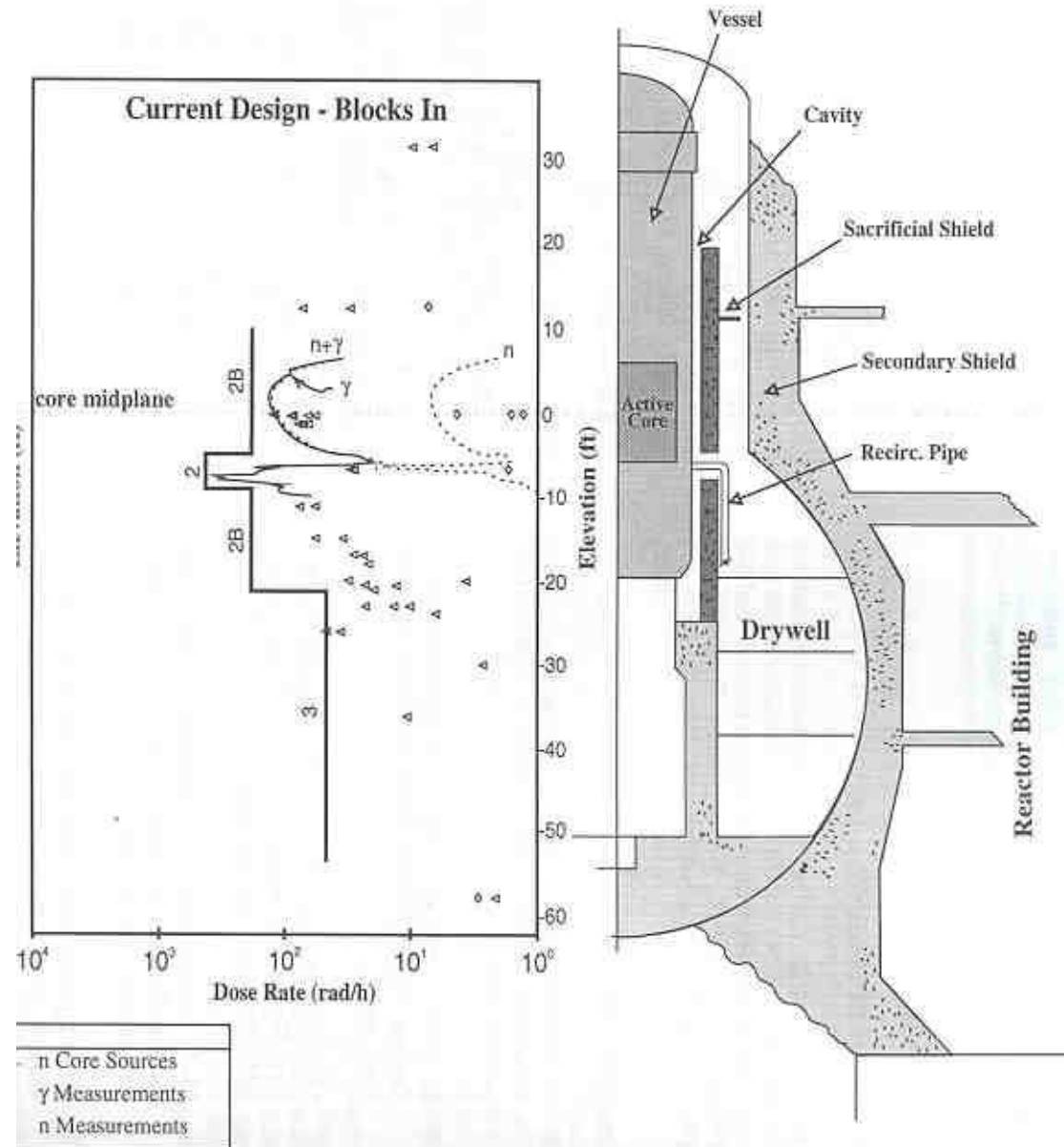
ASSEMBLIES STANDING



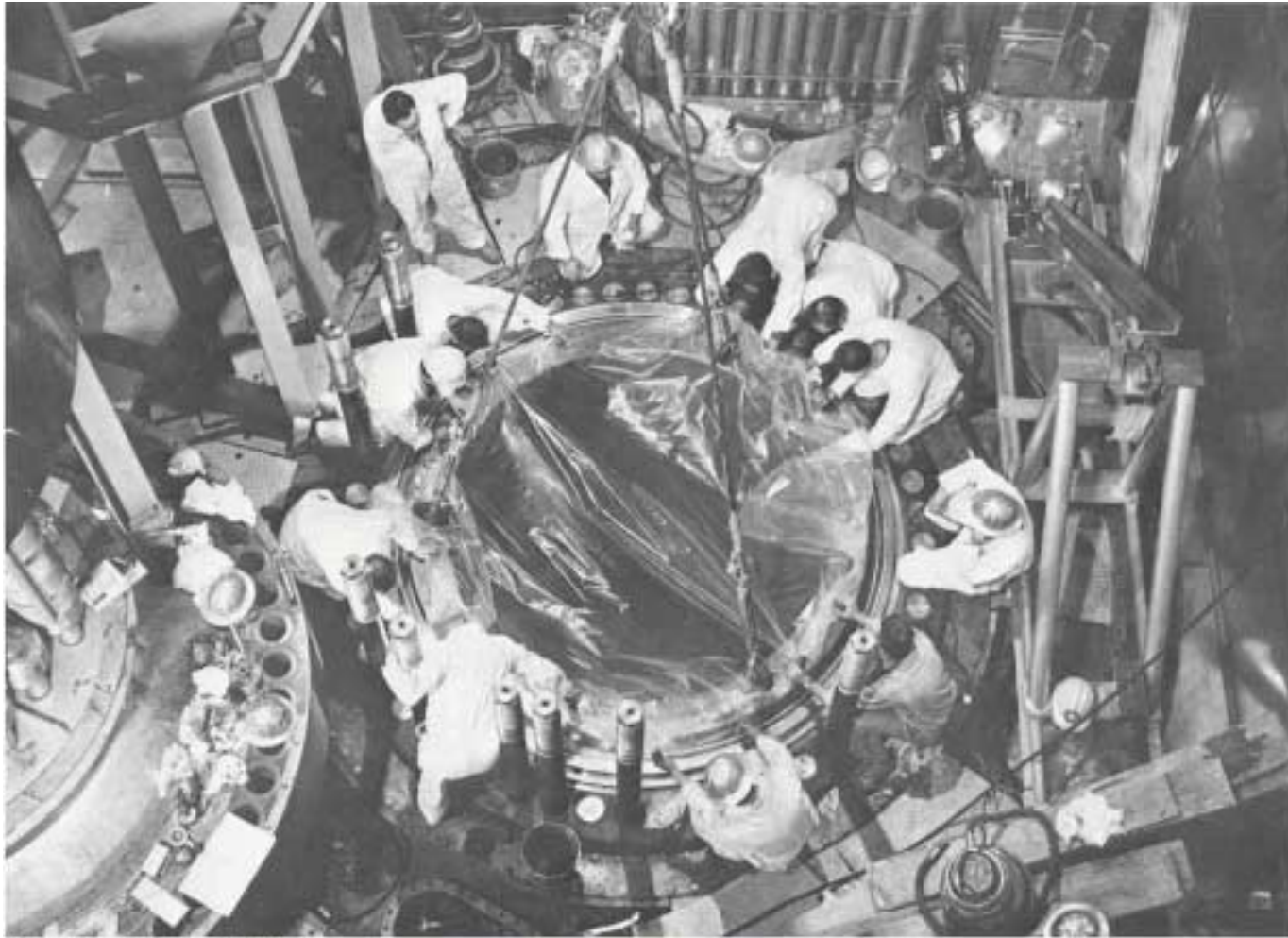
PWR Reactor and Fuel Pool



VY (BWR) Section Through Reactor

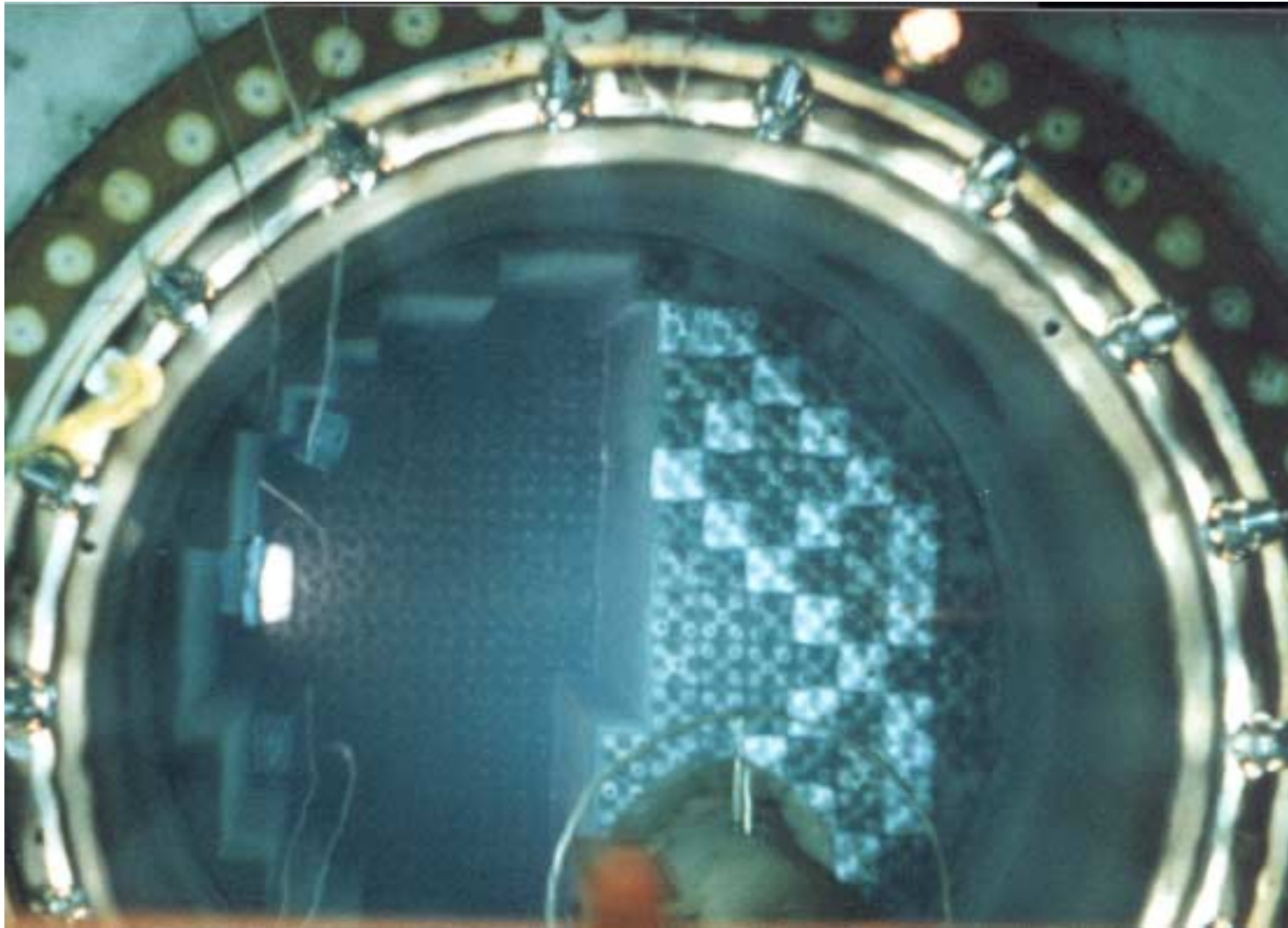


Installing the Core Barrel at Yankee Rowe

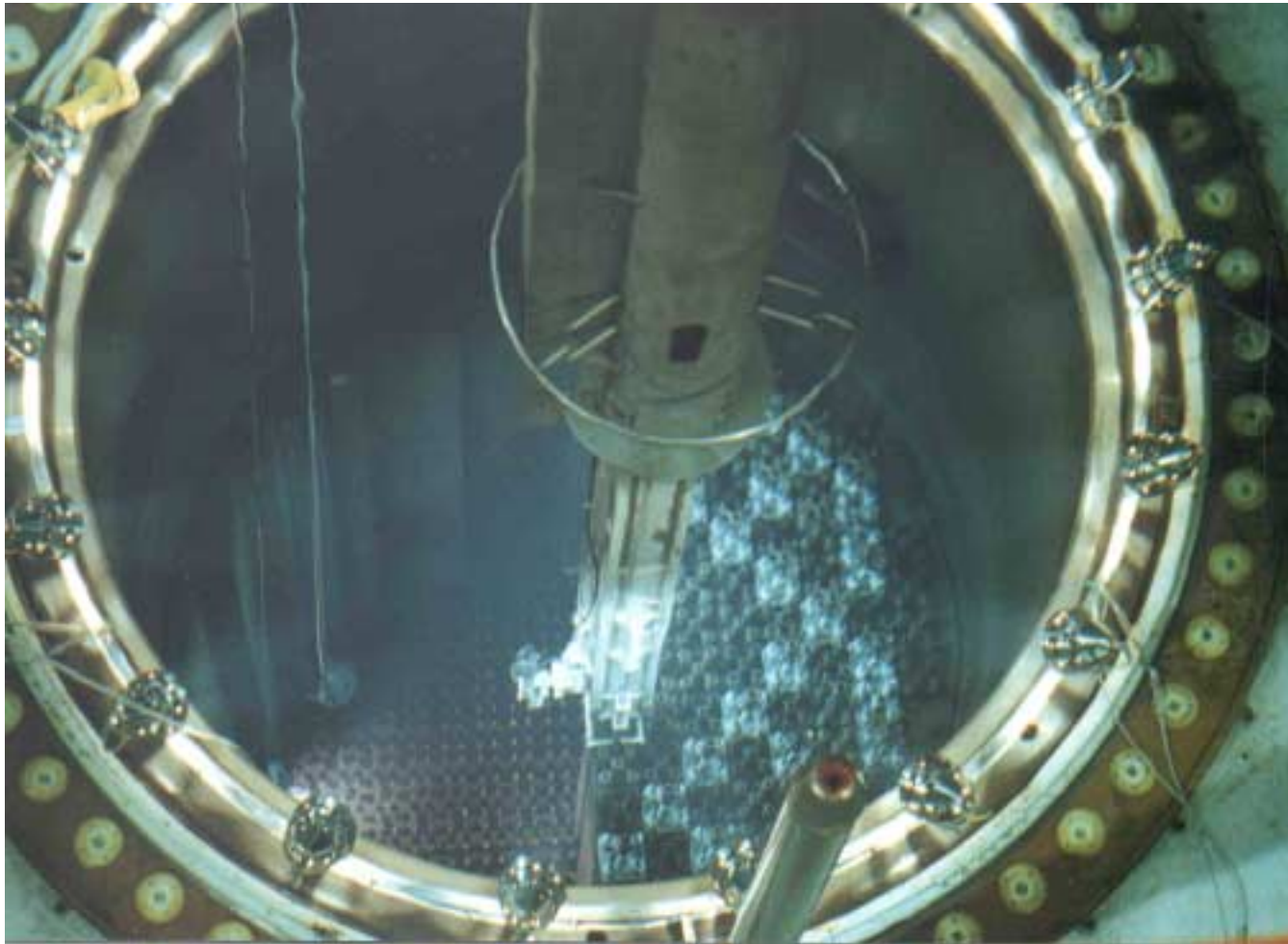


Core Barrel Installed—July 1960

REACTOR THROUGH 30 Feet WATER

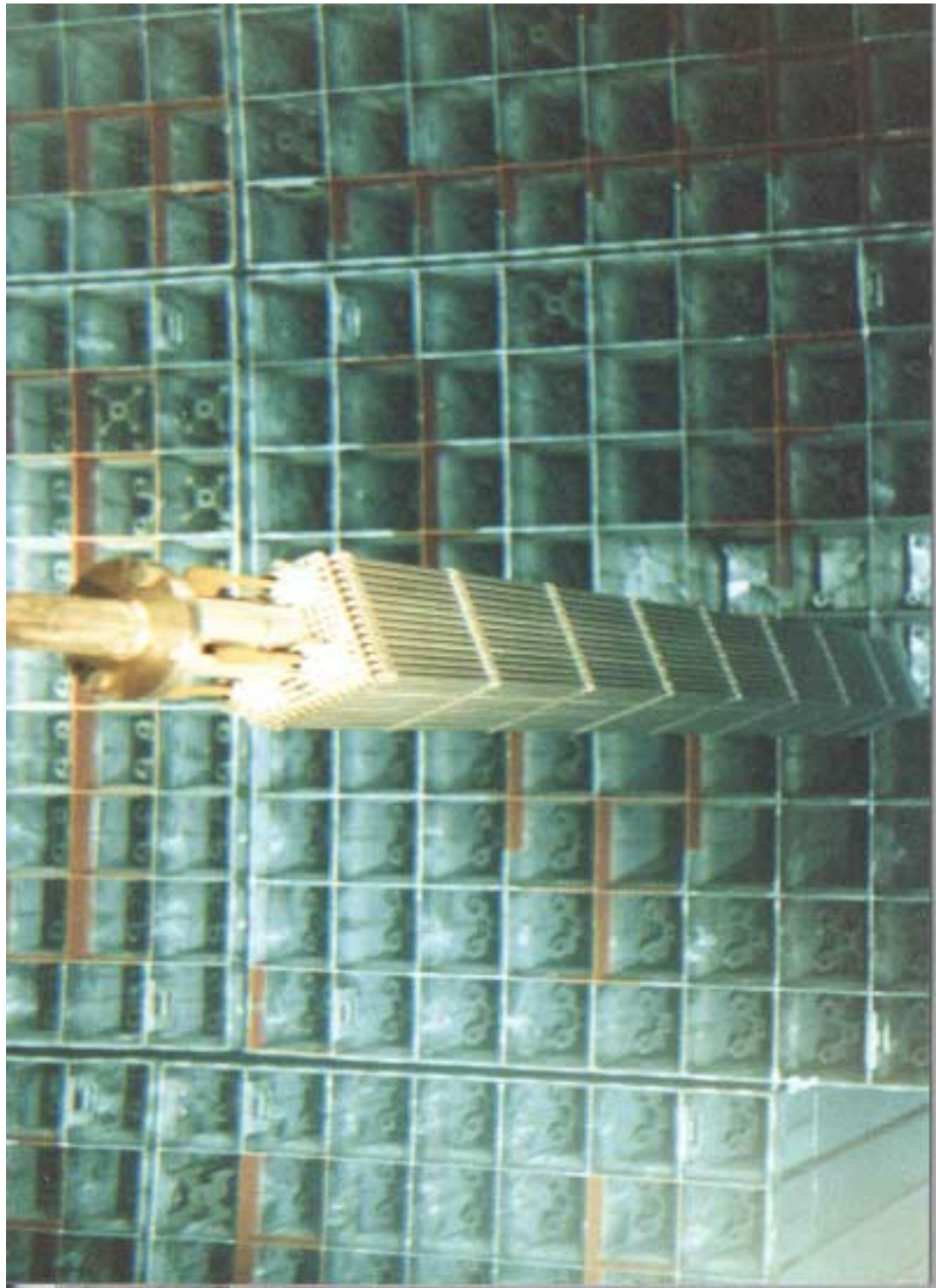


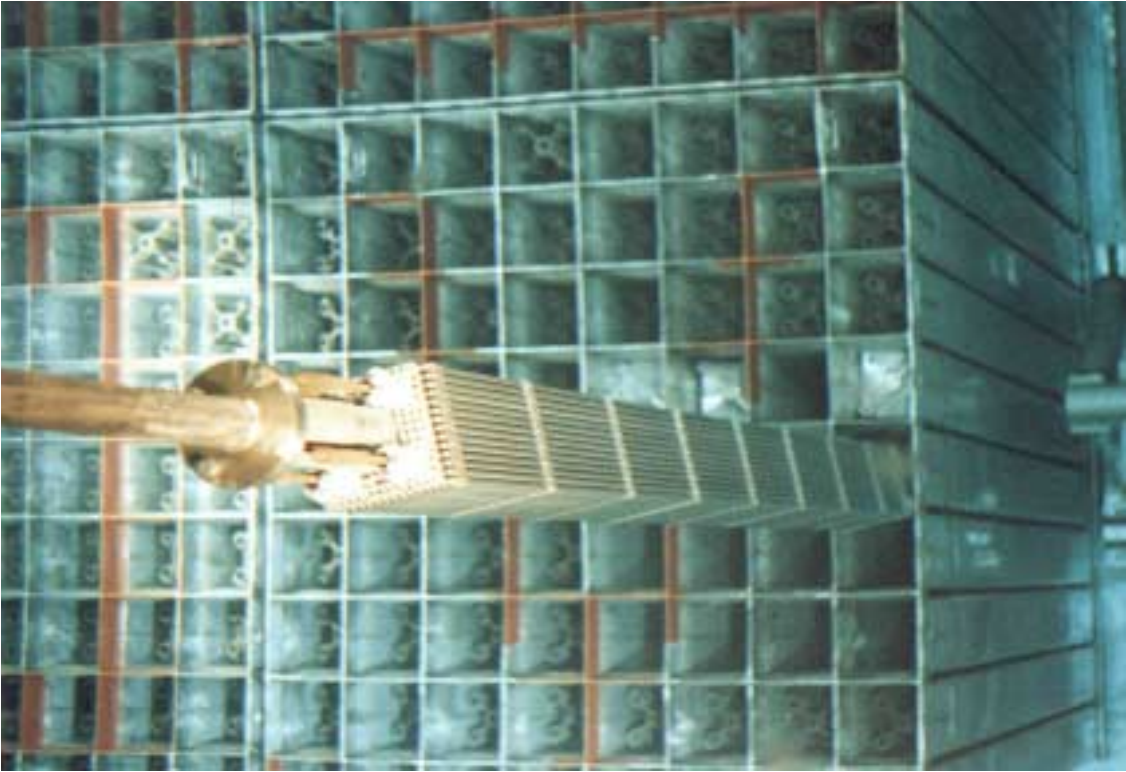
NEW FUEL IS LIGHT, OLD IS DARK



FUEL POOL AT
FRENCH
REPROCESSING
FACILITY
*(from National
Geographic)*







BRAND NEW SPENT FUEL RACKS

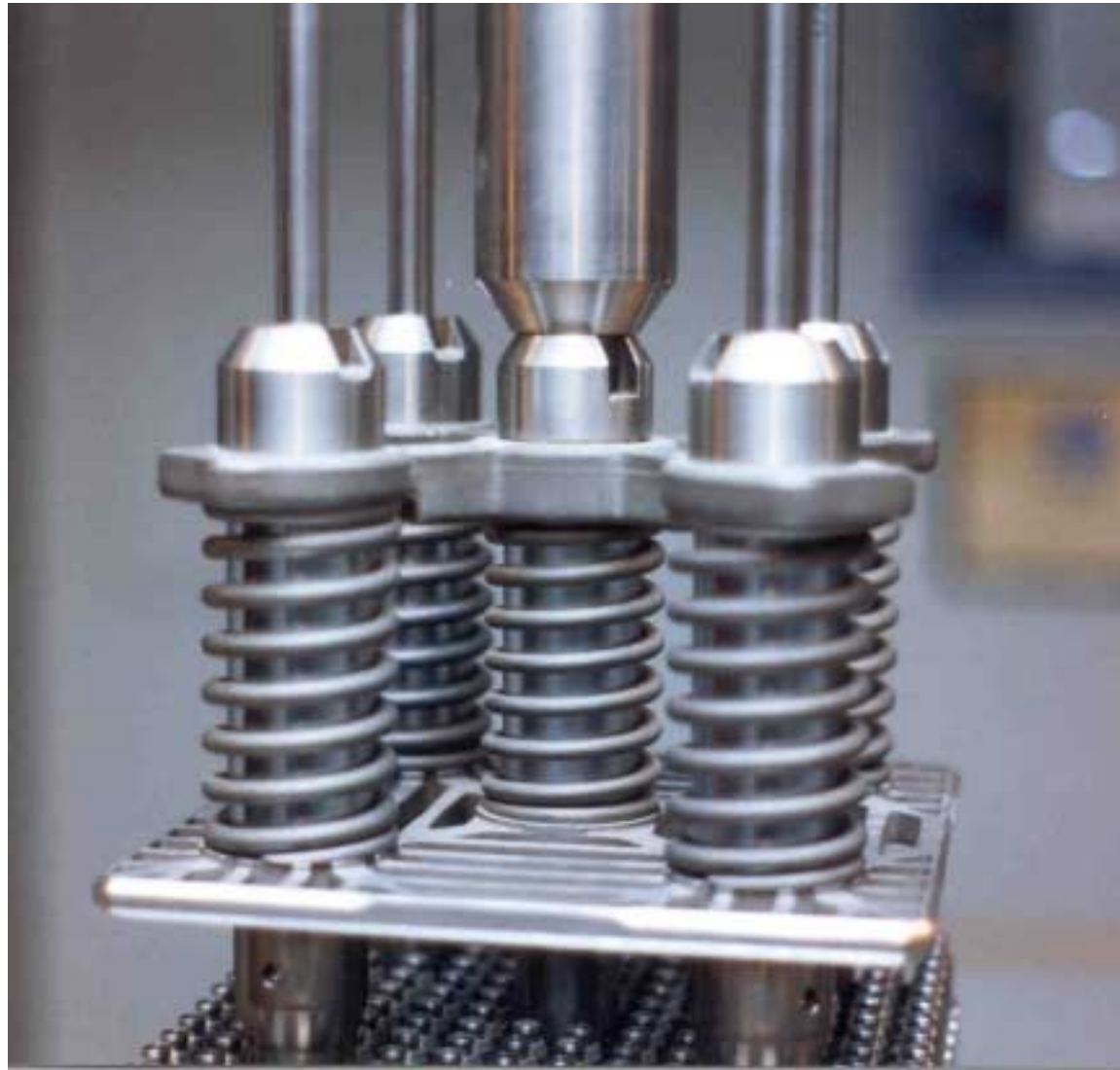




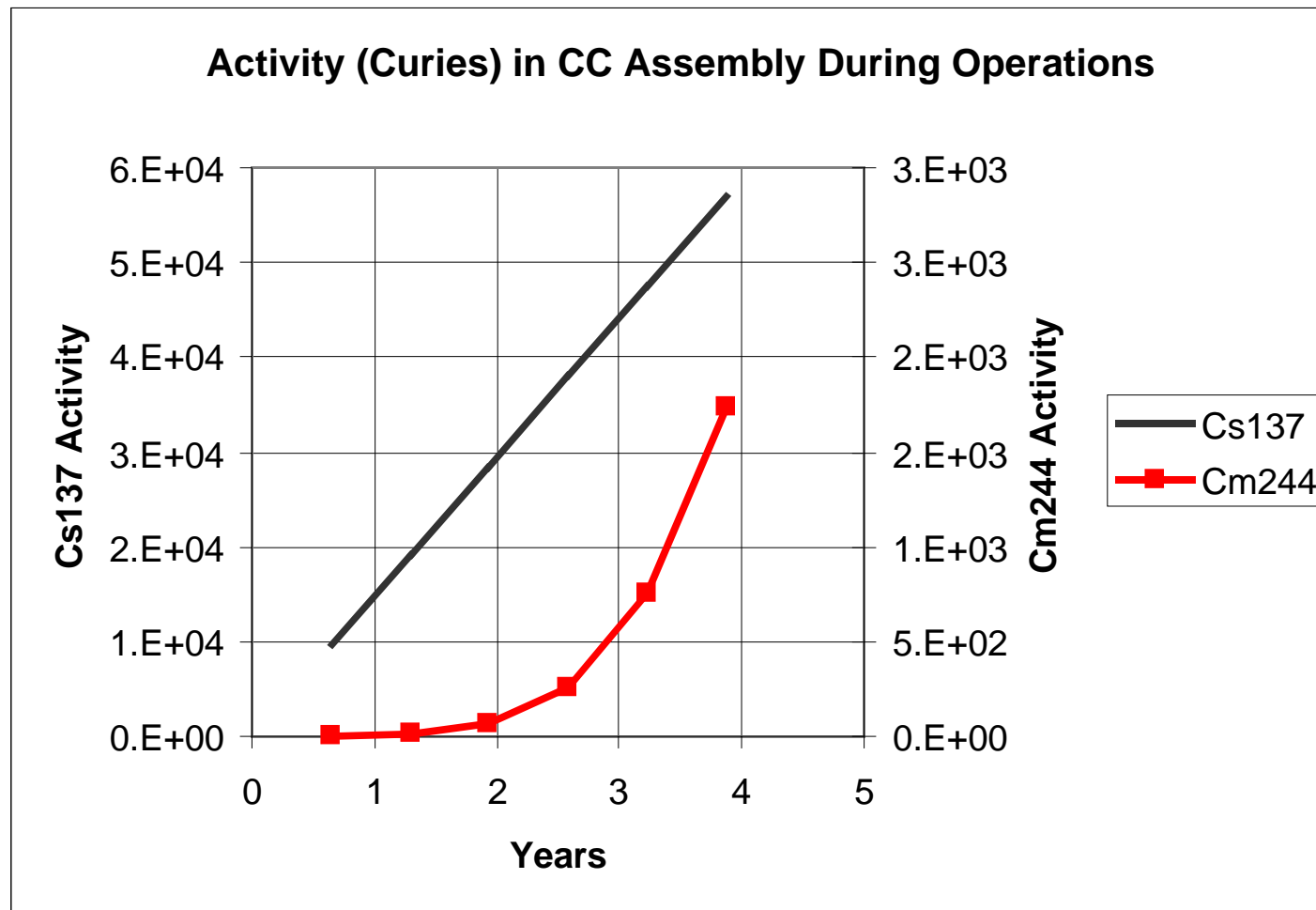
DEMO
FUEL –
CONTROL
RODS IN
AND OUT



UPPER
END
FITTING –
INCONEL
SPRINGS



Cesium and Curium vs Operating Time

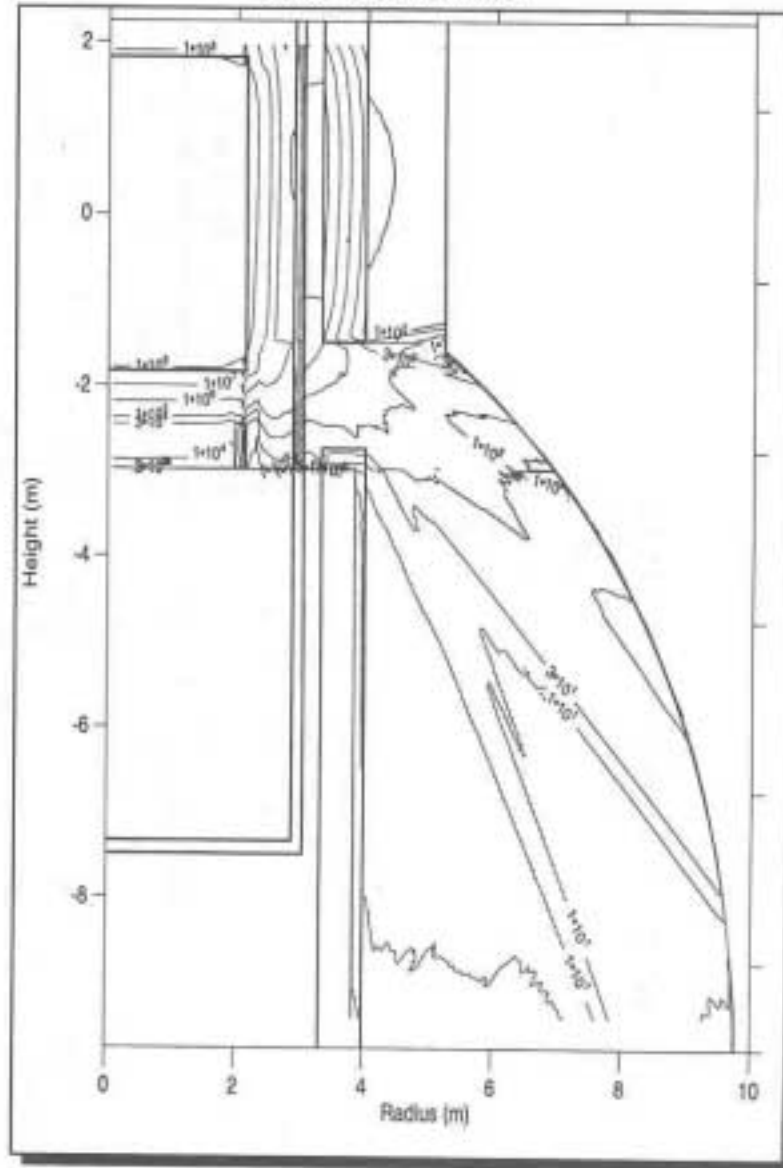


Dose Methods

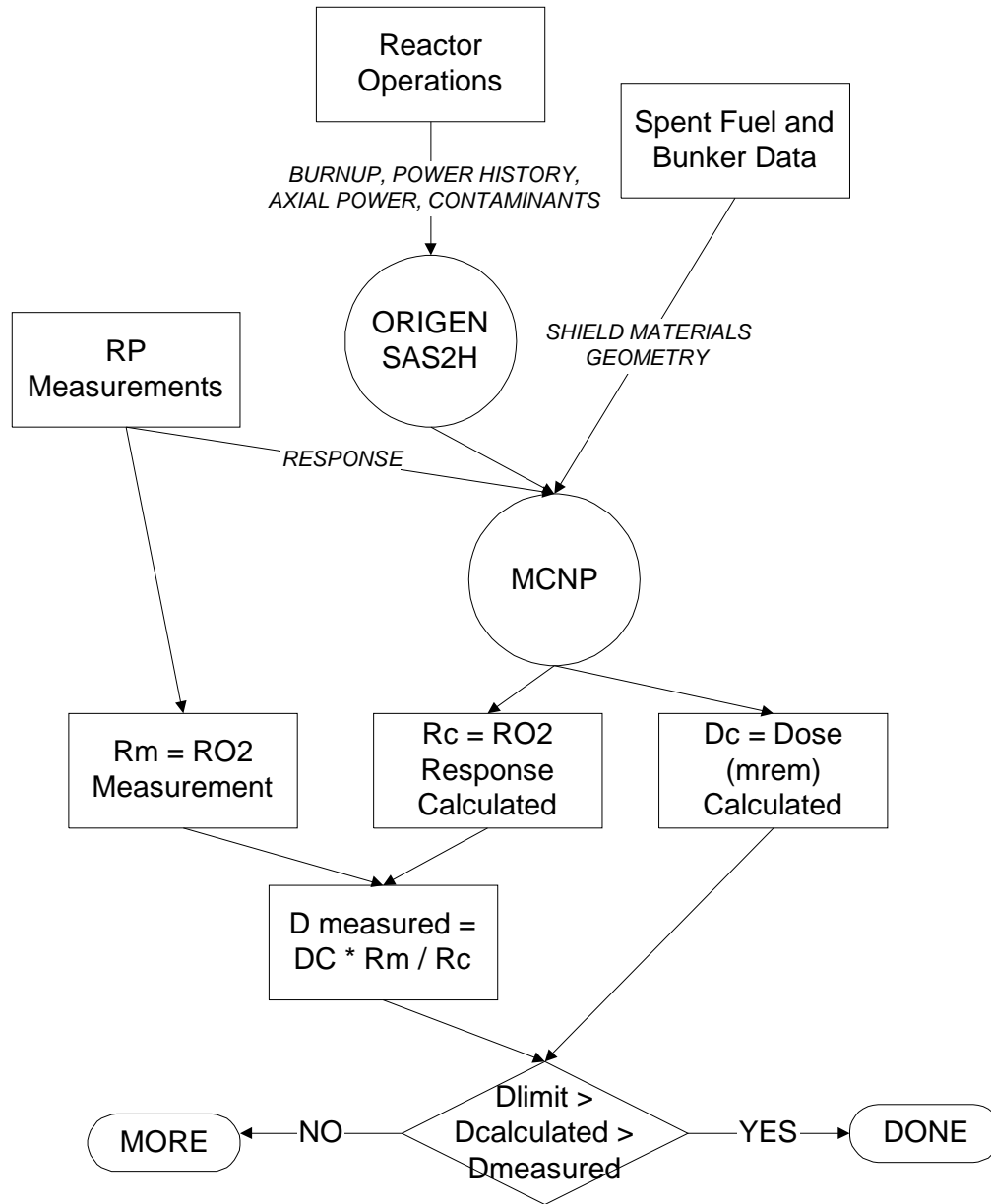
	Monte Carlo	Discrete Ordinates	Parametric
1D		ANISN	QAD <i>transport</i> G3 MicroShield Rankern Skyshine
2D		DORT	
3D	MCNP TRIPOLI MCBEND EGS MORSE	TORT ATILA	QAD <i>materials</i>

Streaming Ray Problem in DORT

Figure 8
Design Gamma Dose Rates (Rads/hr)
Shield Blocks Removed

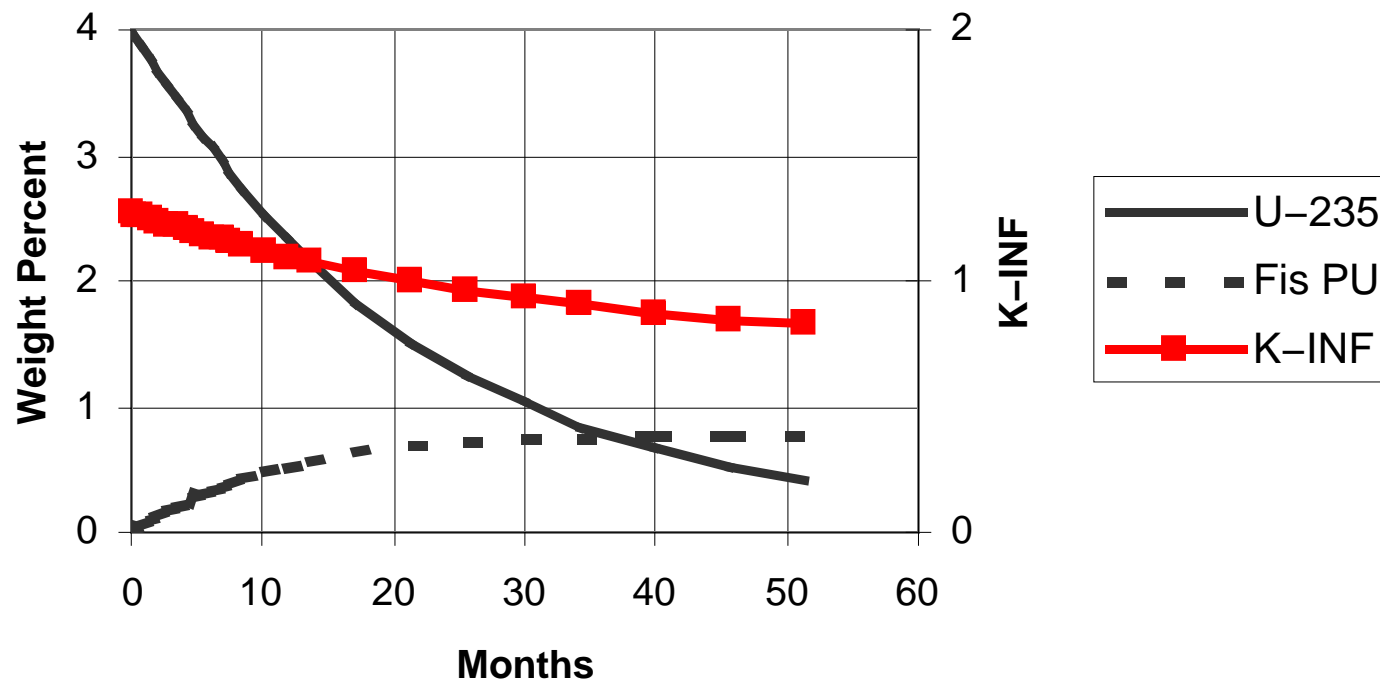


METHOD FLOW DIAGRAM



K versus Time in Reactor

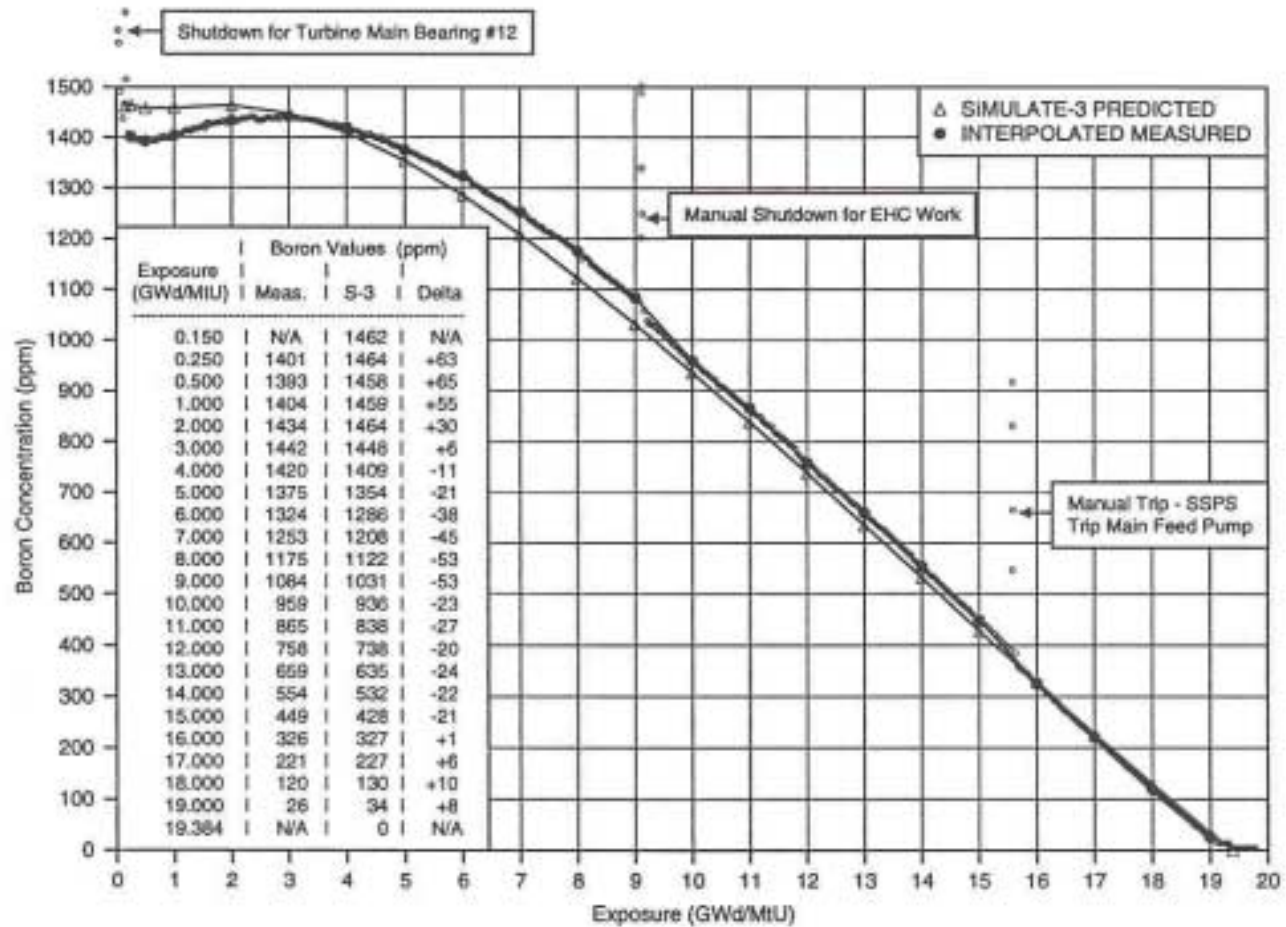
Seabrook Fuel Assembly



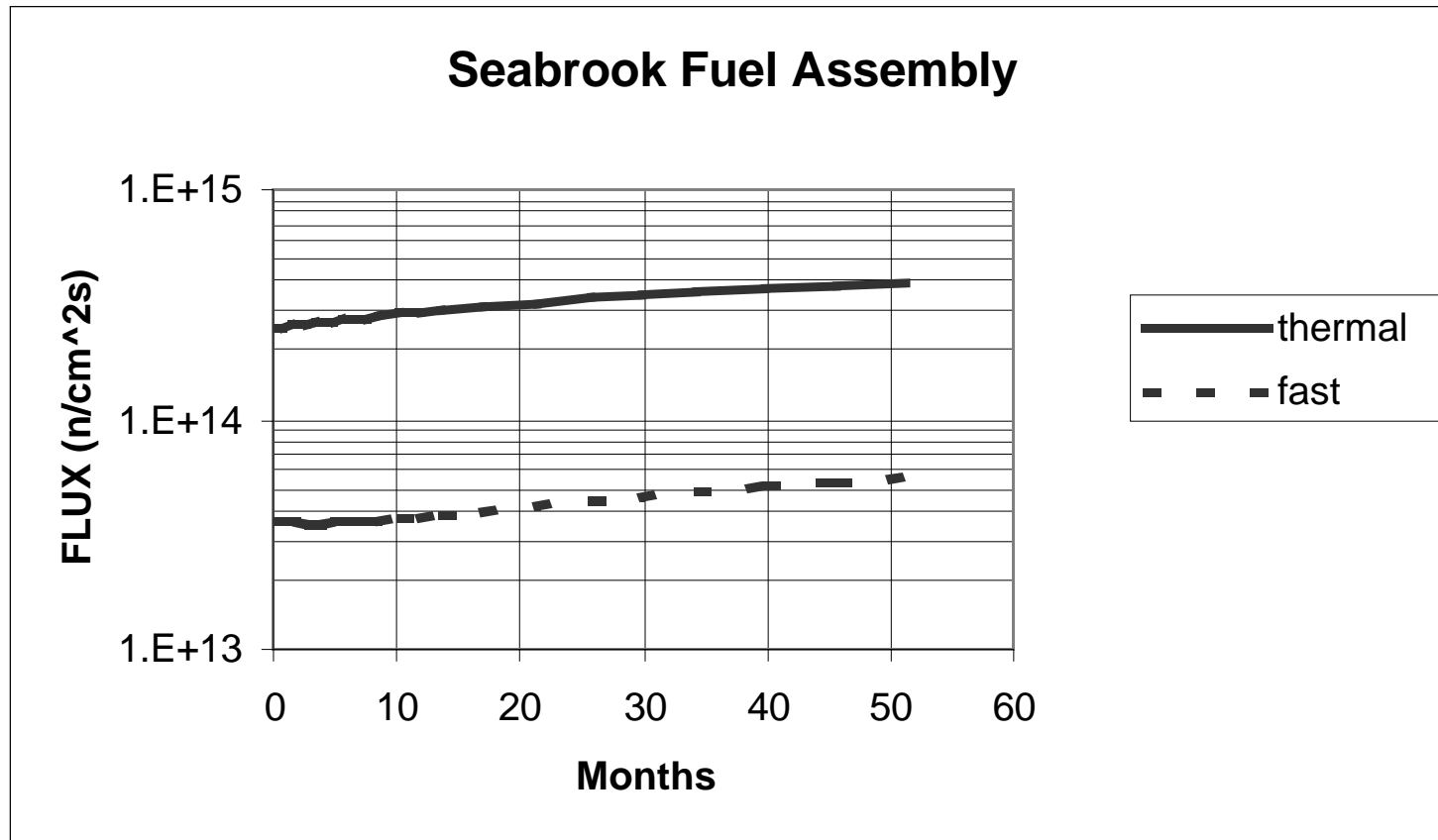
Neutron Absorption – Percent by Nuclide

	start of life	end of life
u235	68.3	13.4
u238	31.4	28.9
pu239		26.3
pu240		7.6
pu241		6.5
xe135		2.0
nd143		1.4
rh103		1.4
xe131		0.8
cs133		0.8
sm149		0.8
tc 99		0.7
	99.7	90.5

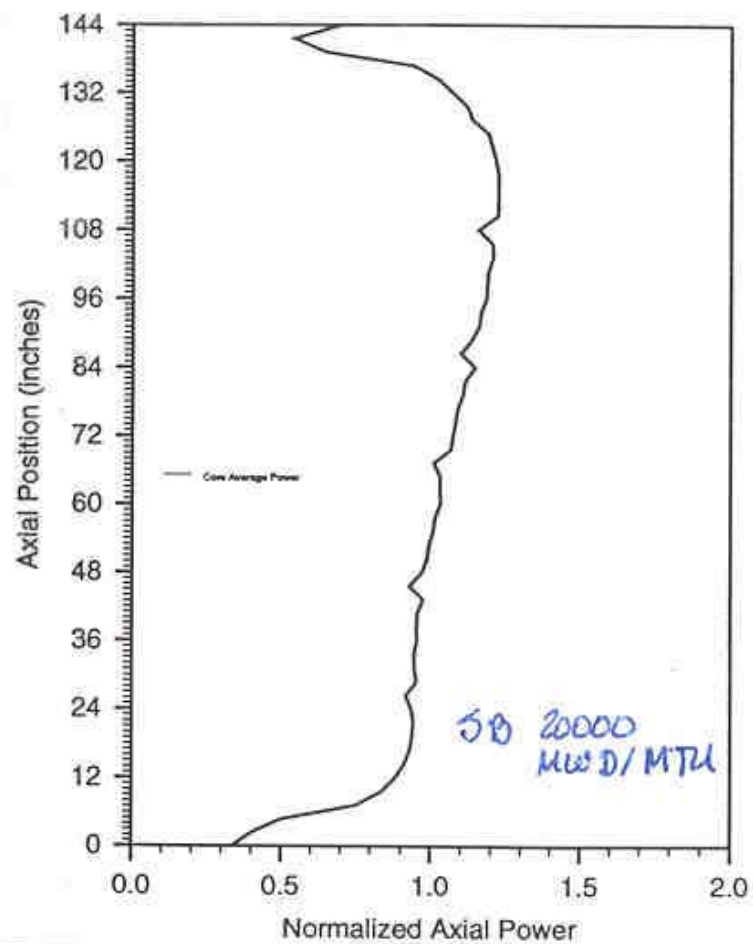
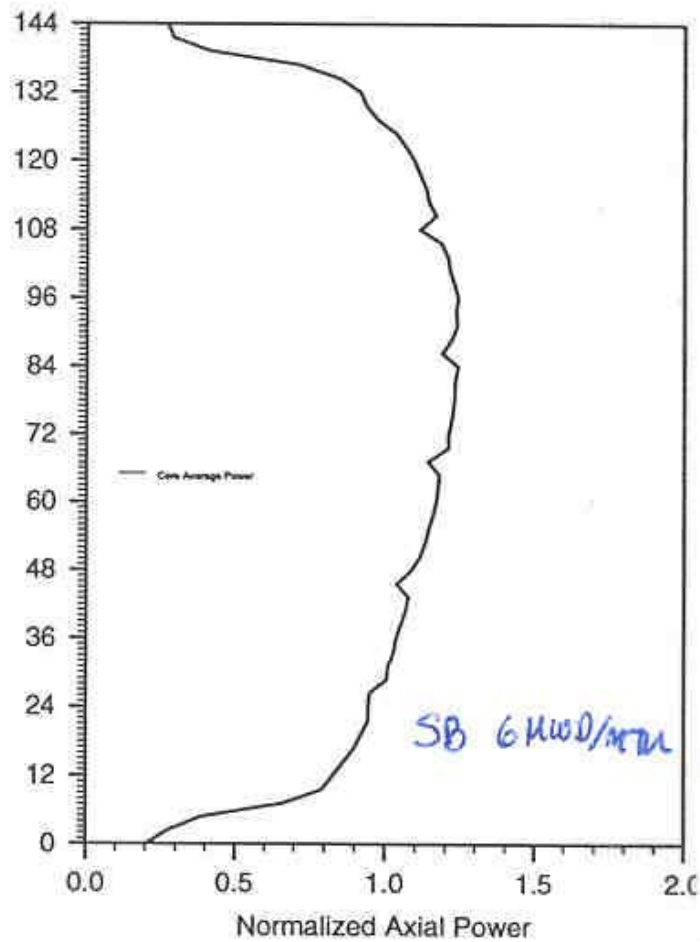
BORON ABSORBER FOR CONTROL



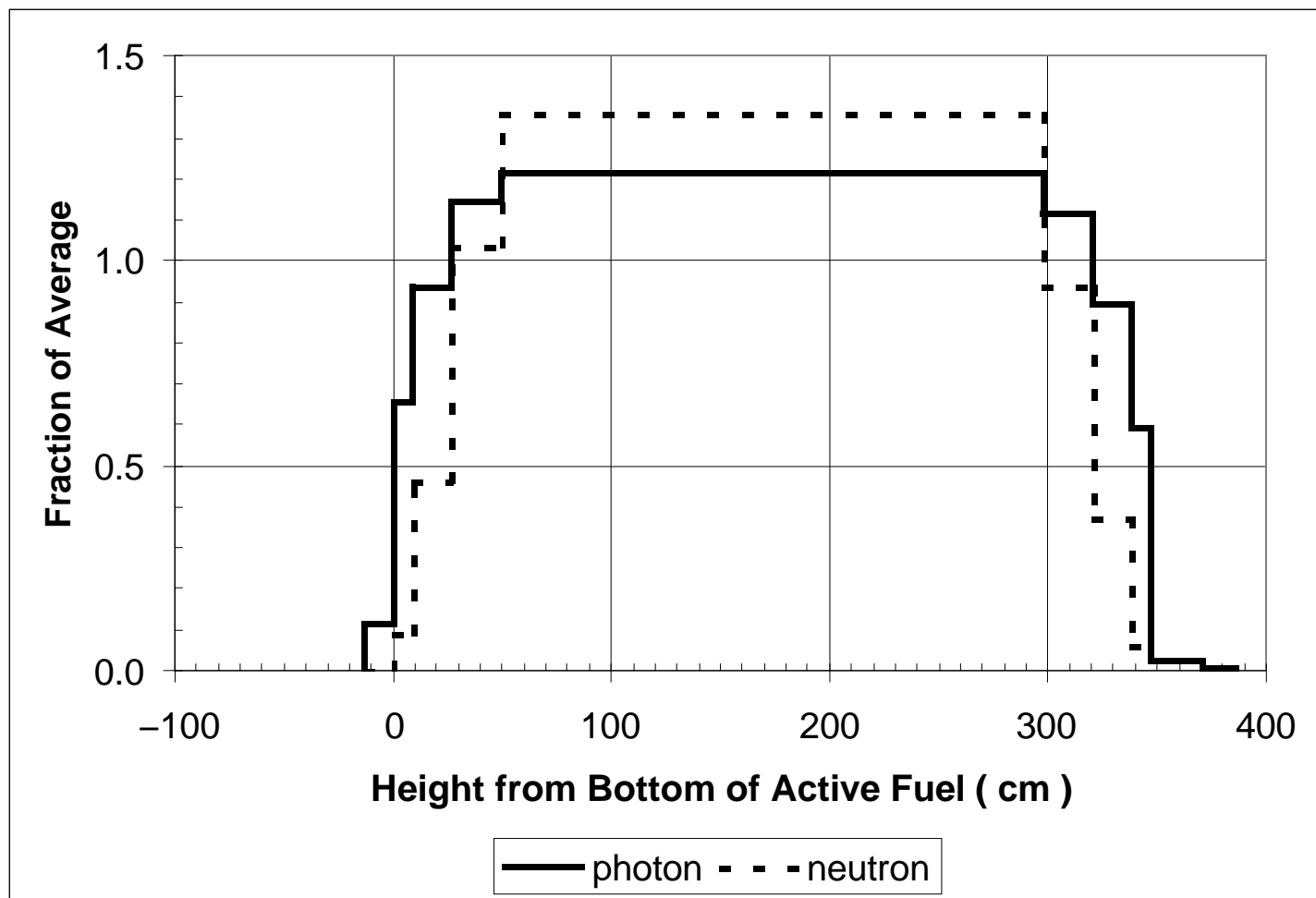
Spectral Shift During Operations



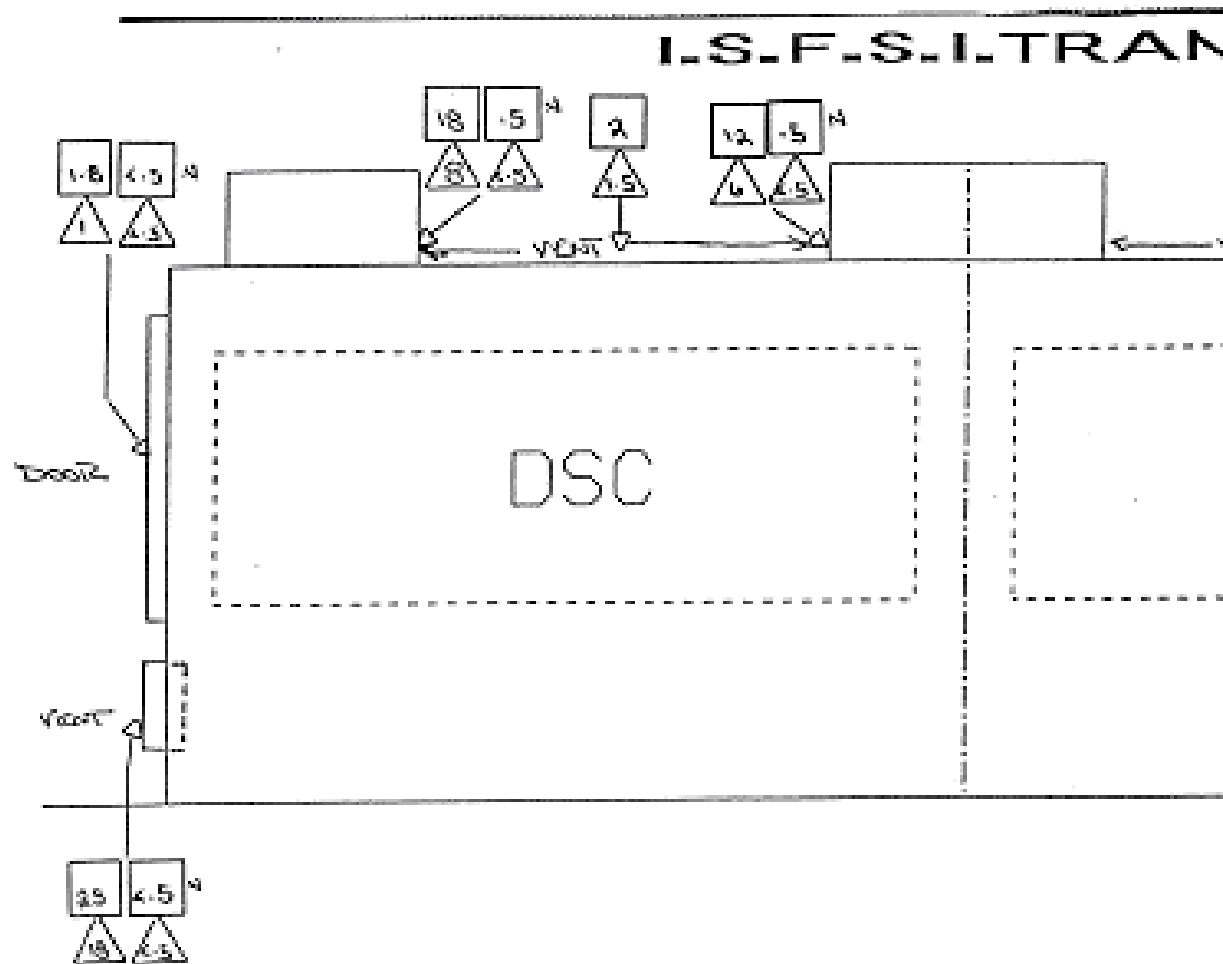
AXIAL POWER DISTRIBUTION



AXIAL ACTIVITY IN FUEL



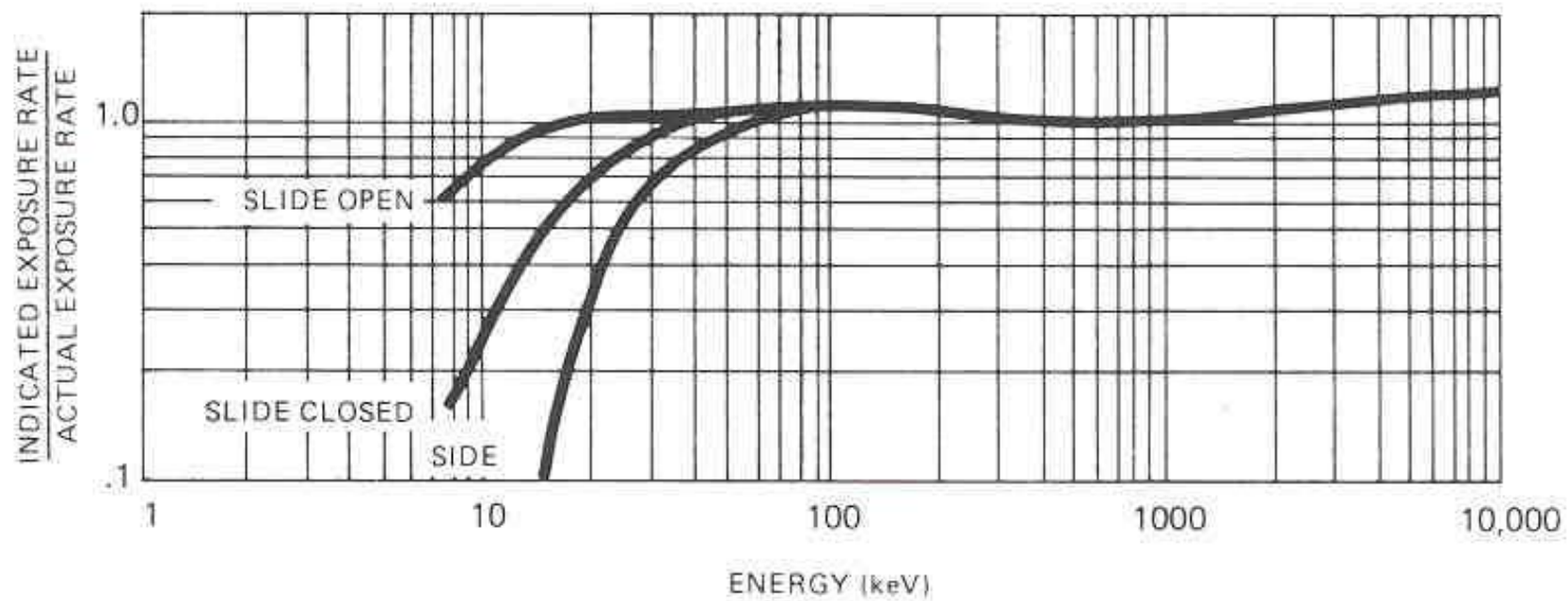
Typical RP (Radiation Protection) Survey



Eberline RO2 Photon (and Electron) Ion Chamber



RO2 (photon)Response



RO2 – Slide Closed



RO2 – slide open for Electrons



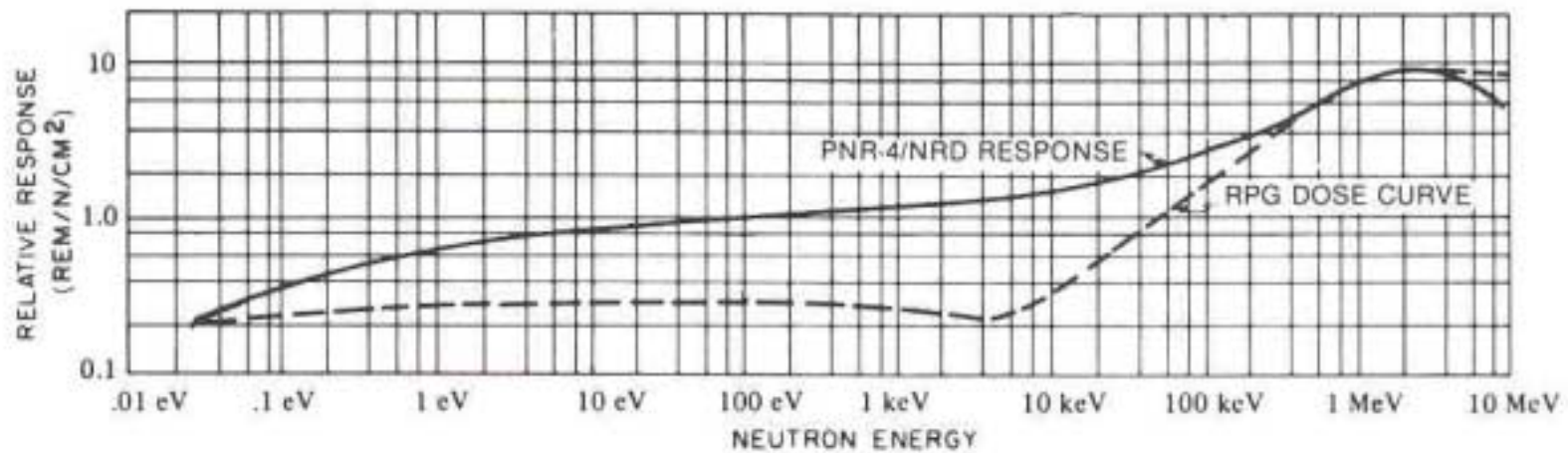
RO2 – Cover Off



Eberline
NRD



Eberline NRD (Neutron) Energy Response



Neutron Energy Response Curve