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ภาคผนวก

REACTOR PRINCIPAL PARAMETERS

Reactor Vessel

Overall length of assembled vessel, closure head, and nozzles	39 ft, 1 in.
Inside diameter of shell	132 in.
Radius from center of vessel to nozzle face	
Inlet	9 ft, 7 in.
Outlet	9 ft, 1 in.
Nominal cladding thickness	7/32 in.
Minimum cladding thickness	5/32 in.
Coolant volume with core and internals in place	2472 cu ft
Operating pressure	2250 psia
Design pressure	2500 psia
Design temperature	650° F
Vessel material	Carbon steel
Cladding material	Stainless steel

Reactor Core

Total heat output	1876 MWt 6402.3 x 10 ⁶ Btu/hr
Heat generated in fuel	97.4 %

REACTOR PRINCIPAL PARAMETERS (Cont.)

Nominal system pressure	2250 psia
Total coolant flow rate	67.5×10^6 lb per hr
Coolant temperature	
Nominal inlet	543.5° F
Average rise in vessel	70.6° F
Outlet from vessel	614.1° F
Equivalent core diameter	8.1 ft
Core length, between fuel ends	12.0 ft
Fuel weight, uranium (first core)	47,450 kg
Number of fuel assemblies	121

Heat Transfer of Core

"Active" heat transfer surface area	28,715 sq ft
Average heat flux	217,100 Btu/hr sq ft
Maximum heat flux	580,600 Btu/hr sq ft
Maximum thermal output	18.8 kw/ft

Number of Control Rod Drive Mechanisms

Control rod drive mechanism housings	33
Drive mechanisms for full length control rods	29
Drive mechanisms for part length control rods	4

REACTOR PRINCIPAL PARAMETERS (Cont.)

Number of Rod Cluster Control Assemblies

Full length	29
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Part length	4
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Fuel Rod

Outside diameter	0.422 in.
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Cladding thickness	0.0243 in.
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Diametral gap (first and second region/other regions)	0.0075/0.0085 in.
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Pellet diameter (first and second regions/other regions)	0.3659/0.3649 in.
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Pitch	0.556 in.
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Rods array in assembly	14 x 14
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Rods in assembly	179
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Total number of fuel rods in core	21,659
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ประวัติการศึกษา

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- การศึกษา สำเร็จวิศวกรรมศาสตรบัณฑิต สาขาไฟฟ้าสื่อสาร
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