From: Joseph Staudenmeier / NRR
To: Glenn Kelly
Date: Monday, August 14, 2000 01:23 PM
Subject: heatup times attached

4287

The times calculated are in hours for an adiabatic heatup from 30 C to 800 C with no oxidation heat source. All Adiabatic Heatups are based on a Peaking Factor of 1.5. There is a large difference for the 24 hour heatup decay time between a peaking factor of 1 and a peaking factor of 1.5.

Adiabatic Heatup Time at 1 Year

Burnup	PWR	BWR
50	4.5	8.1
55	4.1	7.4
60	3.8	6.8
70	3.2	5.8
80	2.8	5.1

Adiabatic Heatup Time at 2 Years

Burnup	PWR	BWR
50	8.2	14.3
55	7.5	12.9
60	6.9	11.9
70	5.9	10.2
80	5.2	8.9

Adiabatic Heatup Time at 5 Years

Burnup	PWR	BWR
50	20.5	32.0
55	18.6	29.1
60	17.1	26.7
70	14.6	22.8
80	12.8	20.0

Adiabatic Heatup Time at 10 Years

Burnup	PWR	BWR
50	31.4	46.4
55	28.5	42.3
60	26.1	38.7
70	22.4	33.2
80	19.6	29.0

Decay Time in Years for a 10 Hour Adiabatic Heatup Time

Burnup	PWR	BWR
50	2.5	1.4
55	2.7	1.5
60	3.0	1.7
70	3.5	2.0
80	3.9	2.4

Decay Time in Years for a 24 Hour Adiabatic Heatup Time

Burnup	PWR	BWR
50	6.4	3.6
55	7.3	4.0
60	8.7	4.4
70	12.3	5.5
80	17.1	6.7

Spent Fuel Pool Heatup and Boiloff Time to 3 feet Above Active Fuel

Decay Time	PWR	BWR
1 year	195	253
2 year	272	337
5 year	400	459
10 year	476	532