



General Electric Company  
175 Curtner Avenue, San Jose, CA 95125

April 28, 1994

Docket No. 52-001

Chet Poslusny, Senior Project Manager  
Standardization Project Directorate  
Associate Directorate for Advanced Reactors  
and License Renewal  
Office of the Nuclear Reactor Regulation

Subject: Submittal Supporting Accelerated ABWR Schedule -  
**FMCRD Scram Times**

Dear Chet:

Enclosed are the FMCRD scram times that George Thomas (NRC) and Dick Ose (GE) discussed on April 26, 1994. These scram times are for the nominal charge pressure of 2134 psig and for the minimum allowable charge pressure of 1850 psig. This is the same information that was provided at an earlier date.

Please provide a copy of this transmittal to George Thomas.

Sincerely,

Jack Fox  
Advanced Reactor Programs

cc:	Alan Beard	(GE)
	Norman Fletcher	(DOE)
	Dick Ose	(GE)
	Joe Quirk	(GE)

030103

JNP94-03

9405050327 940428  
PDR ADOL 05200001  
C PDR

2050  
1/1

ABWR FMCRD

HCU N2 CHARGE PRESSURE VERSUS SCRAM TIME  
FOR CONSTANT VESSEL PRESSURE OF 1375 psig

CASE 1: INITIAL N2 CHARGE PRESSURE = 130 kg/cm2g (1850 psig)  
KBUS = 10.0

TIME sec	HCU N2 PRESSURE psig	VESSEL PRESSURE psig	ROD POSITION %
.00	1850	1375	0
.10	1850	1375	0
.12	1848	1375	.1
.18	1842	1375	1.8
.22	1837	1375	3.4
.37	1817	1375	10
.57	1792	1375	18.4
.74	1773	1375	25
.93	1751	1375	32.7
1.13	1730	1375	40
1.43	1701	1375	50
1.76	1672	1375	60
2.16	1641	1375	70.7
2.54	1615	1375	79.3
2.84	1597	1375	85.1
3.02	1587	1375	88
3.14	1580	1375	90
3.39	1568	1375	93.1
3.57	1560	1375	95.1
3.79	1551	1375	97
4.11	1539	1375	99
4.25	1534	1375	99.5
4.53	1526	1375	100

ABWR FMCRD

HCU N2 CHARGE PRESSURE VERSUS SCRAM TIME  
FOR CONSTANT VESSEL PRESSURE OF 1375 psig

CASE 2: INITIAL N2 CHARGE PRESSURE = 150 kg/cm2g (2134 psig)  
KBUS = 10.0

TIME sec	HCU N2 PRESSURE psig	VESSEL PRESSURE psig	ROD POSITION %
.00	2134	1375	0
.10	2133	1375	0
.12	2131	1375	.3
.18	2120	1375	3
.22	2112	1375	5.5
.29	2097	1375	10
.53	2050	1375	25
.72	2013	1375	37.2
.77	2004	1375	40
.94	1975	1375	50
1.12	1946	1375	60
1.39	1904	1375	75
1.68	1863	1375	90
1.78	1849	1375	95
1.82	1844	1375	96.9
1.86	1839	1375	98.9
1.88	1836	1375	99.8
1.88	1836	1375	100