February 11, 1993

NOTE TO: Chet Poslusny, DAR, NRR

FROM: Glenn Kelly, SPSB, DSSA, NRR

SUBJECT: FAX FROM GE DOCUMENTING MODIFICATIONS MADE TO THE ABWR SEISMIC FRAGILITIES FOR SSCs

I have enclosed a fax I received from Larry Frederick, GE, that documents GE's modifications to the fragilities of SSCs modeled in the ABWR PRA-based seismic margins analysis.

Enclosure: as stated

FEB 10 '93 08:46AM

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 2

To GLEN KELLY	From LARRY FREDERICK
Co. NEC	Co. SE
Dept.	Phone #
Fax #	Fax # 301-504-1260

10E4 12:42PM
1075

LE 9I.2-1
NENTS/STRUCTURES FRAGILITIES

SYSTEM / COMPONENT	MED_CP (A_m)	LOG_STD (B_c)	HCLPF (in g)	FAIL.PROB. (Fail/Dem)
1. Plant Ess. Structures (BI)	2.8	.45	.98	0.0
-Reactor Building	2.8	.45	.98	
-Containment	4.3	.44	1.56	
-RPV Pedestal	7.9	.44	2.84	
-Control Building	2.8	.45	.98	
-Reactor Pressure Vessel	5.3	.33	2.46	
2. Support Systems (PW)				
a. AC Power (ACP)	1.8	.46	.62	1.6E-3
X -Diesel Generator	1.8 1.5	.46 .50	.62	
X -Transformer (480 V AC)	1.8 1.1	.46 .45	.62	
X -Motor Control Center	1.8 1.5	.46 .50	.62	
-Cable Tray	3.0	.60	.74	
-Relay Switch	2.0	.50	.63	
Inverter	2.2 1.1	.46 .45	.25	
b. Service Water (SW)	1.8	.46	.62	9.7E-5
~~X -Transformer~~	~~1.8 1.1~~	~~.46 .45~~	~~.62~~	
~~X -Motor Control Center~~	~~1.8 1.5~~	~~.46 .50~~	~~.62~~	
X -Pump (Motor Driven)	1.8 1.6	.46 .45	.62	
-Heat Exchanger	2.0 1.4	.45 .45	.70	
-Valve (Motor Operated)	3.0	.60	.74	
-Check Valve	3.0	.60	.74	
X -Room Air Cond. Unit	2.0 1.2	.50 .50	.63	
-Piping	3.0	.60	.74	
-SW Pump House →	~~2.8~~ 1.7 N/A	.45	.98	
-AC Ducting	3.0	.60	.74	
c. DC Power (DCP)	3.3	.46	1.13	7.2E-6
X *Batteries &	3.3 1.5	.46 .45	1.13	
X *~~Inverter~~ Charger	2.2 1.1	.46 .45	.75	
added → Cable Tray	3.0 3.0	.60 .60	.74	
3. High Press. Core Flooder (UH)	1.8	.46	.62	2.7E-3
X -Pump (Motor Driven)	1.8 1.6	.46 .45	.62	
-Injection Valve (Motor Op)	3.0	.60	.74	
-HPCF Piping	3.0	.60	.74	
added -Check Valve	3.0	.60	.74	
4. Reactor Core Is. Cooling(UR)	2.0	.45	.70	6.0E-2
-Pump (Turbine Driven)	2.0	.45	.70	
-Steam Sup. Valve (MO)	3.0	.60	.74	
-Discharge Valve (MO)	3.0	.60	.74	
-Min Flow Valve (MO)	3.0	.60	.74	
-Check Valve	3.0	.60	.74	
-RCIC Piping	3.0	.60	.74	

not modeled - typo

~~X -Transformer~~ ~~X -Motor Control Center~~ } not modeled as in SW a typo.

Red Mark: June 25, 1992 Seismic Margin Analysis

TABLE 19I.2-1 (CONTINUED)

SYSTEM / COMPONENT	MED_CP (A_m)	LOG_STD (B_c)	HCLPF (in g)	FAIL.PROB (Fail/Dem)
5. Low Pressure Core Flooder (V1)	1.8	.46	.62	3.1E-4
-Pump (Motor Driven)	1.8 1.6	.46 .45	.62	
-Check Valve	3.0	.60	.74	
-Injection Valve (MO)	3.0	.60	.74	
-Discharge Valve (MO)	3.0	.60	.74	
-LPCF Piping	3.0	.60	.74	
6. RHR Heat Exchanger (HX)	2.0	.45	.70	6.0E-5
-Heat Exchanger	2.0	.45	.70	
7. Reactivity Control Sys. (C)	1.2	.35	.53	1.0E-8
-Fuel Assemblies	1.2	.35	.53	
-CRD Guide Tube	1.7	.36	.74	
-CRD Housing	3.9	.46	1.33	
-Shroud Support	1.9	.36	.82	
-Hydraulic Control Unit	2.0	.50	.63	
8. SRVs Close (PC,PC1)	3.0	.60	.74	2E-3,1E-1
-Safety Relief Valve	3.0	.60	.74	
9. Depressurization (X)	3.0	.60	.74	6.2E-6
-Safety Relief Valve	3.0	.60	.74	
10. Level & Press. Control (LPL)	3.0	.60	.74	1.0E-2
-Safety Relief Valve	3.0	.60	.74	
11. Inhibit ADS (PA)	3.0	.60	.74	2.4E-3
-Safety Relief Valve	3.0	.60	.74	
12. Standby Liq. Cont. Sys. (C4)	1.8	.46	.62	1.4E-2
-SLC Tank	1.8 1.1	.46 .45	.62	
-SLC Pump	1.8 1.6	.46 .45	.62	
-Valve (Motor Operated)	3.0	.60	.74	
-SLC Piping	3.0	.60	.74	
13. Condensate Injection (V2)	1.8	.46	.62	1.0E-1
-Pump (Motor Driven)	1.8	.46	.62	
-Injection Valve (MO)	3.0	.60	.74	
-Piping	3.0	.60	.74	
14. Fire Water System (FW)	1.8	.46	.62	1E-3,1E-1
-FW Tank	2.1	.45	.79	
-Pump (Diesel Driven)	1.8 1.6	.46 .45	.62	
-Injection Valve (Manual)	3.6 3.0	.60 .60	.89	
-FW Piping	3.0	.60	.74	
-Valve (Manual)	3.6	.60	.89	

Note: HCLPF = A_m*exp(-2.326*B_c)