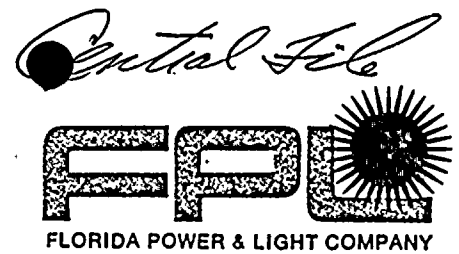


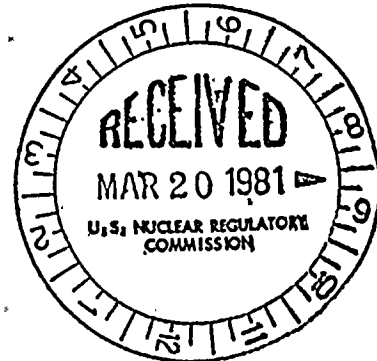
USNRC REGION II
ATLANTA, GEORGIA

81-88-17 A2; 34



February 12, 1981
L-81-49

Mr. James P. O'Reilly, Director, Region II
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303




Dear Mr. O'Reilly:

Re: RII:JPO
50-250, 50-251
IE BULLETIN 79-01B (Supplement 3)

Enclosed as attachments to this letter are new Component Evaluation Sheets and index pages, revised Master List pages and index pages, and a listing of changes resulting from the Unit 3 containment walk-down which supplement FPL's response to NRC IE Bulletin 79-01B, (FPL letter L-80-210) dated July 3, 1980. The Component Evaluation Sheets and Master List pages are applicable to installed and operating equipment required as a result of TMI which falls within the scope of IE Bulletin 79-01B.

Very truly yours,


Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/PLP/mrs

cc: Director, Office of Inspection and Enforcement
Harold F. Reis, Esquire

8103230409

Q

SECTION B.2

INDEX FOR MASTER LIST

Facility: Turkey Point

Unit: 3 & 4

Docket No:

Unit 3 - 50-250

Unit 4 - 50-251

PAGE NO.	SYSTEM	REV	DATE	REMARKS
1A	REACTOR COOLANT	1	6/27/80	
1B	REACTOR COOLANT			
1C	REACTOR COOLANT			
1D	REACTOR COOLANT	2	1/28/81	
1E	REACTOR COOLANT	0	1/28/81	
2A	CHEMICAL & VOLUME CONTROL	1	6/27/80	
2B	CHEMICAL & VOLUME CONTROL			
2C	CHEMICAL & VOLUME CONTROL			
2D	CHEMICAL & VOLUME CONTROL			
2E	CHEMICAL & VOLUME CONTROL	Y	Y	
3A	SAFETY INJECTION & RESIDUAL HEAT REMOVAL	1	6/27/80	
3B	SAFETY INJECTION & RESIDUAL HEAT REMOVAL			
3C	SAFETY INJECTION & RESIDUAL HEAT REMOVAL			
3D	SAFETY INJECTION & RESIDUAL HEAT REMOVAL			
3E	SAFETY INJECTION & RESIDUAL HEAT REMOVAL			
3F	SAFETY INJECTION & RESIDUAL HEAT REMOVAL	Y	Y	

SECTION B.2

INDEX FOR MASTER LIST

Facility: Turkey Point
Unit: 3 & 4

Docket. No:
Unit 3 - 50-250
Unit 4 - 50-251

PAGE NO.	SYSTEM	REV	DATE	REMARKS
12E	MISCELLANEOUS-ELECTRICAL PENETRATIONS	1	6/27/80	
12F	MISCELLANEOUS-ELECTRICAL PENETRATIONS			
12G	MISCELLANEOUS-ELECTRICAL PENETRATIONS			
13A	MISCELLANEOUS - CABLES	1	6/27/80	
13B	MISCELLANEOUS - CABLES	2	1/28/81	
14A	MISCELLANEOUS - TERMINAL BOXES	1	6/27/80	
14B	MISCELLANEOUS - TERMINAL BOXES			
14C	MISCELLANEOUS - TERMINAL BOXES			
14D	MISCELLANEOUS - TERMINAL BOXES			
14E	MISCELLANEOUS - TERMINAL BOXES			
14F	MISCELLANEOUS - TERMINAL BOXES			

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM:

REACTOR COOLANT SYSTEM

See Dwg. 5610-T-E-4501, Sht. 1 of 1, Rev. 6

FUNCTION LEGEND

L - LOCA

H - HELB

I - INSIDE CTMT

O - OUTSIDE CTMT

Mi - MITIGATE

Mo - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
1-43	TE-4-410	RESISTANCE TEMPERATURE DETECTOR	X		Mo - L/HI,HO
1-44	TE-4-413	RESISTANCE TEMPERATURE DETECTOR	X		Mo - L/HI,HO
1-45	TE-4-420	RESISTANCE TEMPERATURE DETECTOR	X		Mo - L/HI,HO
1-46	TE-4-423	RESISTANCE TEMPERATURE DETECTOR	X		Mo - L/HI,HO
1-47	TE-4-430	RESISTANCE TEMPERATURE DETECTOR	X		Mo - L/HI,HO
1-48	TE-4-433	RESISTANCE TEMPERATURE DETECTOR	X		Mo - L/HI,HO
1-49	TE-3-413A	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO
1-50	TE-3-413B	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO
1-51	TE-3-423A	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO
1-52	TE-3-423B	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO
1-53	TE-3-433A	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO
1-54	TE-3-433B	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO
1-55	TE-4-413A	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO
1-56	TE-4-413B	RESISTANCE TEMPERATURE DETECTOR	X		Mi & Mo-L/HI, HO

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM:

See Dwg. 5610-T-E-451, Sheet 1 of 1, Revision 6

FUNCTION LEGEND

L - LOCA

H - HELB

I - INSIDE CTMT

0 - OUTSIDE CTMT

Mi - MITIGATE

Mo - MONITOR

[illegible]

MASTER LIST

FACILITY: TURKEY POINT

UNIT: 3 & 4

(Class IE Electrical Equipment Required to
Function Under Postulated Accident Conditions)

DOCKET NO:

UNIT 3 - 50-250

UNIT 4 - 50-251

SYSTEM: MISCELLANEOUS -- CABLES

FUNCTION LEGEND

L - LOCA
H - HELB
I - INSIDE CTMT
O - OUTSIDE CTMT
MI - MITIGATE
MO - MONITOR

COMPONENTS					
SECTION/ ITEM NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	COMPONENT LOCATION		COMPONENT FUNCTION
			INSIDE CTMT	OUTSIDE CTMT	
13-15	Cable Code N20	3/C #12 Power Cable		X	MI & Mo-L/HI&HO
13-16	Cable Code 21	2/C #12 Control Cable		X	MI & Mo-L/HI&HO
13-17	Cable Code 22	3/C #12 Control Cable		X	MI & Mo-L/HI&HO
13-18	Cable Code 23	5/C #12 Control Cable		X	MI & Mo-L/HI&HO
13-19	Cable Code 24	7/C #12 Control Cable		X	MI & Mo-L/HI&HO
13-20	Cable Code 25	9/C #12 Control Cable		X	MI & Mo-L/HI&HO
13-21	Cable Code 26	12/C #12 Control Cable		X	MI & Mo-L/HI&HO
13-22	Cable Code 63	2/C #16 Instrument Cable		X	MI & Mo-L/HI&HO
13-23	Cable Code 64	4/C #16 Instrument Cable		X	MI & Mo-L/HI&HO
13-24	Cable Code 80	2PR #16 Instrument Cable		X	MI & Mo-L/HI&HO
13-25	Cable Code L1P	2/C #16 Instrument Cable	X		MI & Mo-L/HI&HO
13-26	Cable Code LT1	3/C # 16 Instrument Cable	X	X	MI & Mo-L/HI & HO
13-27	Cable Code LP1	2/C #16 Instrument Cable	X	X	MI & Mo-L/HI & HO
13-28	Cable Code LT1	3/C #16 Instrument Cable	X		MI & Mo-L/HI & LO

SECTION C2-1

FACILITY: TURKEY POINT
UNIT: 3 & 4

INDEX
TO COMPONENT EVALUATION
WORK SHEETS

DOCKET NO:
UNIT 3 - 50-250
UNIT 4 - 50-251

SYSTEM: REACTOR COOLANT					
PAGE NO.	PLANT IDENTIFICATION NUMBER	GENERIC NAME	REV	DATE	REMARKS
1-41	TE-3-430	RESISTANCE TEMPERATURE DETECTOR	1	6/27/80	
1-42	TE-3-433	RESISTANCE TEMPERATURE DETECTOR			
1-43	TE-4-410	RESISTANCE TEMPERATURE DETECTOR			
1-44	TE-4-413	RESISTANCE TEMPERATURE DETECTOR			
1-45	TE-4-420	RESISTANCE TEMPERATURE DETECTOR			
1-46	TE-4-423	RESISTANCE TEMPERATURE DETECTOR			
1-47	TE-4-430	RESISTANCE TEMPERATURE DETECTOR			
1-48	TE-4-433	RESISTANCE TEMPERATURE DETECTOR	Y	Y	
1-49	TE-3-413A	RESISTANCE TEMPERATURE DETECTOR	0	01-28-81	
1-50	TE-3-413B	RESISTANCE TEMPERATURE DETECTOR	0	01-28-81	
1-51	TE-3-423A	RESISTANCE TEMPERATURE DETECTOR	0	01-28-81	
1-52	TE-3-423B	RESISTANCE TEMPERATURE DETECTOR	0	01-28-81	
1-53	TE-3-433A	RESISTANCE TEMPERATURE DETECTOR	0	01-28-81	
1-54	TE-3-433B	RESISTANCE TEMPERATURE DETECTOR	0	01-28-81	
1-55	TE-4-413A	RESISTANCE TEMPERATURE DETECTOR	0	01-28-81	
1-56	TE-4-413B	RESISTANCE TEMPERATURE DETECTOR	0	01-28-81	
1-57	TE-4-423A	RESISTANCE TEMPERATURE DETECTOR	0	01-28-81	
1-58	TE-4-423B	RESISTANCE TEMPERATURE DETECTOR	0	01-28-81	
1-59	TE-4-433A	RESISTANCE TEMPERATURE DETECTOR	0	01-28-81	
1-60	TE-4-433B	RESISTANCE TEMPERATURE DETECTOR	0	01-28-81	

INDEX
TO COMPONENT EVALUATION
WORK SHEETS

DOCKET NO:
UNIT 3 - 50-250
UNIT 4 - 50-251

[illegible]

LIST OF CHANGES TO IEB 79-01B PHASE II SUBMITTAL

PAGE	TAG NO.	MODEL	SERIAL	ELEVATION (ABOVE FLOOR)	MISCELLANEOUS
1	PT-3-403		6804A6255A49	3'-0"	
2	PT-3-405		6804A6257A25*	1'-3"	
3	PT-3-406		163398R	2'-8"	
4	PT-3-404		163399R	3'-5"	
9	PT-3-455			3'-8"	Manufacturer: Fischer & Porter
10	PT-3-456		6804A6257A82	3'-8"	
11	PT-3-457		6804A6257A84	3'-8"	
15	LT-3-459			1'-2"	Transducer Model 224
16	LT-3-460			1'-2"	Transducer Model 224
17	LT-3-461			1'-2"	Transducer Model 224
21	TE-3-412B			15'-6"	
22	TE-3-412D			15'-6"	
23	TE-3-422B			15'-6"	
24	TE-3-422D			15'-6"	
25	TE-3-432B			15'-6"	
26	TE-3-432D			15'-6"	
33	MOV-3-535		86764A		
34	MOV-3-536		86773A		
37	TE-3-410			15'-6"	
38	TE-3-413			15'-6"	
39	TE-3-420			15'-6"	
40	TE-3-423			15'-6"	
41	TE-3-430			15'-6"	
42	TE-3-433			15'-6"	
-1	SV-3-310A	HT831654		6'-1"	
-3	SV-3-310B	LB831654	7055RT	3'-1"	

This has since been changed out to serial 6804A6257A83 (Hi Temp, Hi Rad Model) PW #7811ER63

LIST OF CHANGES TO IEB 79-01B PHASE II SUBMITTAL

GE	TAG NO.	MODEL	SERIAL	ELEVATION (ABOVE FLOOR)	MISCELLANEOUS
4	Assoc. Lim. Sw.			3'-2" & 3'-5"	
9	SV-3-200A	HT831854		5'-0"	
11	SV-3-200B	HT831854	540298	4'-2"	
13	SV-3-200C	HT831854			
9	FT-3-932		6804A6255A69	2'-11"	
10	FT-3-933		7309A2751A1	3'-0"	OSC. Amp. #805B241U01
21	MOV-3-744A	MOTOR -- R71015-7	MOTOR -- 2-53197		
23	MOV-3-744B	MOTOR -- 7253251A1			
25	MOV-3-750			5'-5"	
27	MOV-3-751		MOTOR-- 434082-BT	5'-4"	
47	MOV-3-866A	SMB 00-15		10'-9"	
48	MOV-3-866B	SMB 00-15		9'-7"	
73	LS-3-1570		No Serial# on tag		
74	LS-3-1571		431065		
26	3P211B	68F13681	2S-68		
27	3P211C		3S-68		
3	PT-3-476		6804A6255A29		
18	PT-4-496		6804A6255A27		
19	PT-3-464		6804A6257A15		
20	PT-3-466		6804A6255A19		
25	FT-3-475		6804A6255A61	4'-0"	OSC. Amp. #805B217U01
26	FT-3-484		R6804A6257A59	3'-10"	OSC. Amp. #805B217U01
27	FT-3-485		7110A5531A15	3'-10"	OSC. Amp. #805B217U01
28	FT-3-494		6804A6255A63	1'-0"	
29	FT-3-495		6804A6255A65		OSC. Amp. #805B217U01
30	FT-3-474		R6804A6255A52	4'-0"	OSC. Amp. #805B217U01

LIST OF CHANGES TO IEB 79-01B PHASE II SUBMITTAL

PAGE	TAG NO.	MODEL	SERIAL	ELEVATION (ABOVE FLOOR)	MISCELLANEOUS
7-1	LT-3-474		6804A6257A69	3'-10"	
7-2	LT-3-475		R6804A6257A71	3'-10"	
7-3	LT-3-476		6804A6257A72	3'-11"	
7-4	LT-3-484	13D2497KBBABBB-NS		3'-11"	
7-5	LT-3-485			3'-11"	
7-6	LT-3-486			3'-11"	
7-7	LT-3-494		R6804A6257A72	3'-10"	
7-8	LT-3-495			3'-11"	
7-9	LT-3-496			3'-10"	
9-3	TE-3-3442			16'-0"	
9-4	TE-3-3443			12'-1"	
9-5	TE-3-3444			10'-0"	
9-6	TE-3-3445			7'-2"	
9-7	TE-3-3446			14'-1"	
9-8	TE-3-3447			12'-8"	
9-9	TE-3-3448			21'-5"	
9-10	TE-3-3449			17'-2"	
9-13	TE-3-3452			14'-1"	
9-14	TE-3-3453			12'-7"	
9-15	TE-3-3454			10'	
9-16	TE-3-3455			7'-2"	
9-17	TE-3-3456			21'-7"	
9-20	TE-3-3459			12'-0"	
9-21	TE-3-3460			10'-0"	
9-22	TE-3-3461			7'-3"	
9-23	TE-3-3462			14'-1"	

LIST OF CHANGES TO IEB 79-01B PHASE II SUBMITTAL

AGE	TAG NO.	MODEL	SERIAL	ELEVATION (ABOVE FLOOR)	MISCELLANEOUS
56	3V3B	46-26-1200			
57	3V3C	46-26-1200			
58	FS-3-1422	3500S-S	2671		
59	FS-3-1423	3500S-S	2672		
60	FS-3-1424	3500S-S	2673		Area 5, Dwg. 5610-E-102, Rev. 7
61	FS-3-1425	3500S-S	2674		Area 5, Dwg. 5610-E-102, Rev. 7
62	FS-3-1426	3500S-S	2675		
63	FS-3-1427	3500S-S	2676		
73	SV-3-2905	8211C46	S47989	4'-1"	
75	SV-3-2907		59279T4	9'-6" above per. hatch plat.	Elev. 30'-6", Dwg. 5610-E-101, Rev. 8
76	SV-3-2908			9'-6" above plat.	Elev. 30'-6", Dwg. 5610-E-101, Rev. 8
78	SV-3-2910		59279T8	4'-0"	
113	SV-3-2601		49792A	27'-10"	
114	SV-3-2804			27'-10"	
115	Lim Sw.			27'-10"	
116	SV-3-2603		49792A	15'-6"	Elev. 58', Dwg. 5610-E-102, Rev. 7
117	SV-3-2806		49792A	15'-6"	Elev. 58', Dwg. 5610-E-102, Rev. 7
118	LimSwPov 2603	D1200G-2&D120CG-2SR		15'-6"	Elev. 58', Dwg. 5610-E-102, Rev. 7
125	SV-3-2819	8316C14	21258D	11'-3"	
126	2 Lim Sw.			10'-6" & 10'-9"	
4-4	TB-3122			4'-10"	
4-5	TB-3123			3'-8"	
4-6	TB-3124			4'-10"	
4-7	TB-3125			4'-9"	
4-8	TB-3126			4'-10"	
4-9	TB-3127			4'-10"	

SECRET

[illegible]

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 1-49

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-413A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 6 Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-103/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with HAC ₄ to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SURF LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 1-50

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-413B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELBS (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 6 Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-103/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
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 3. FFL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCNET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-423A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-CS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 5 Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-100/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-423B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-CS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 5' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E 100/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURNKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 1-53

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-433A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demom: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area Elev. 64' Ref. Dwg. No. Mech. Elect. 5610-E-103/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.							

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1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-018 MASTER LIST.
61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 1-54
 REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-3-433B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-103/78-75, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <u>X</u> No <u> </u>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

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 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
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 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 1-55

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-413A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 12' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-110/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.							

*DOCUMENT REFERENCES:

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- 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-018 MASTER LIST.
61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 Docket: 50-250 & 50-251

SYSTEM CAPABILITY EVALUATION WORK SHEET

PAGE 1-56

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-413B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 12' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-110/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

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 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 1-57

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-423A Component: RESISTANCE TEMPERATURE DETECTOR	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
MANUFACTURER: PYCO	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
MODEL NO: 122-4030-04-(4)-8-GS	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
ACCURACY: Spec: .12 Demon: .52	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR	Radiation	SEE ATTACHMENT #3	2×10^8 RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5)	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
Area 11, Elev. 14, Ref. Dwg. No. Mech. Elect. 5610-E-107/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.							

- *DOCUMENT REFERENCES:
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 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SHMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURNER POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

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RIV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-423B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 11, Elev. 14, Ref. Dwg. No. Mech. Elect. 5610-E-107/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

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 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 1-59
 REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TE-4-433A Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-CS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 12, Elev. 14, Ref. Dwg. No. Mech. Elect. 5610-E-110/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SHMP LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-018 MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 1-60

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO.: TZ-4-433B Component: RESISTANCE TEMPERATURE DETECTOR FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: PYCO MODEL NO: 122-4030-04-(4)-8-GS ACCURACY: Spec: .1% Demon: .5% SERVICE: REACTOR COOLANT SUB COOL MARGIN MONITOR LOCATION: INSIDE CONTAINMENT 12'-2" ABOVE FLOOR (NOTE 5) Area 12' Elev. 14' Ref. Dwg. No. Mech. Elect. 5610-E-110/78-76, REV. 4 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	22	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST & ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	61 (Fig. 1, Page 4-5)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	NOTE 2	3	61 (Page 4-3)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	61 (Page A3-3)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	2.63	SEE NOTE 1	61 (Page A3-1)	SEQUENTIAL TEST & ENGINEERING ANALYSIS	NOTE 4
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) 3000 ppm boron as boric acid in solution with sodium thiosulfate buffered with NaOH to a pH of 10. 3) The test profile envelopes the actual profile throughout test. The actual test was conducted for 30 days. 4) The RTD was aged for 7 days at 121°C. Pyco is planning to retest these RTD's more rigorously with respect to aging in the third quarter of 1981. The age susceptible element will be replaced periodically subject to the results of this test. 5) These RTD's are located in existing thermowells on the reactor coolant piping.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. EPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SURF LEVEL.
 22. ANALYSIS OF OPERATING TIME FOR DEVICES COVERED IN IE BULLETIN 79-01B MASTER LIST.
 61. QUALIFICATION TEST REPORT #770831 FOR PYCO TEMPERATURE DETECTORS.

FACILITY: TURKEY POINT
UNIT: 3 & 4
DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 13-26

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. CABLE CODE LTI Component: 3/C #16 CABLE W/CROSS-LINKED EPR INSUL. AND HYPALON JACKET FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: ANACONDA MODEL NO: FLAME-GUARD (FR-EP) ACCURACY: Spec: N/A Demon: N/A SERVICE: 600V INSTRUMENT CABLE LOCATION: INSIDE CONTAINMENT AND OUTSIDE CONTAINMENT Area VARIOUS Elev. VARIOUS Ref. Dwg. No. Mech. N/A Elect. M/R 5177-105-E-862.1 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS	NOTE 2	62 (page 3-9 and analysis)	SIMULTANEOUS TEST AND ENGINEERING ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	385	1	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	80.7	1	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	62 (page 3-2)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	6200 PPM BORON AS H ₃ BO ₃ BUFFERED TO A pH of 8.6-10.0	3	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	62 (page 3-1)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	62 (page 3-1)	SEQUENTIAL TEST	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This time is based on the longest operating time of the devices served by this cable. (Associated Device: TE-413A)						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 62. QUALIFICATION TEST REPORT #F-C4836-2 FOR ANACONDA FLAME-GUARD (FR-EP) IE CABLES, AND TEMPERATURE EXTRAPOLATION.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 DOCKET: 50-250 & 50-251

SYSTEM COMPONENT EVALUATION WORK SHEET

PAGE 13-28

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT CABLE ID NO.: CABLE CODE LT1 Component: 3/C #16 CABLE W/CROSS-LINKED POLYETHYLENE INSUL. AND NEOPRENE JACKET FUNCTION: LOCA/HELB (in & out) MITIGATE & MONITOR MANUFACTURER: ROCKBESTOS MODEL NO: FIREWALL III ACCURACY: Spec: N/A Demon: N/A SERVICE: 600V INSTRUMENTATION CABLE LOCATION: INSIDE CONTAINMENT Area VARIOUS Elev. VARIOUS Ref. Dwg. No. Tech. N/A Elect. M/R 5177-105-E-857 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS NOTE 3	NOTE 2	63 (page 8)	SIMULTANEOUS TEST AND ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	346°F	1	63 (page 8)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	127.7	1	63 (page 8)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	63 (page 8)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	3000 PPM BORON BUFFERED W/NaOH to pH 9.0-11.0	3	63 (page 8)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	63 (page 9)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	63 (page 2)	SEQUENTIAL TEST	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This time is based on the longest operating time of the devices served by this cable. (Associated device: TE-413A) 3) Actual test duration was 30 days, however the test profile envelopes the actual profile throughout test.							

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 63. ROCKBESTOS QUALIFICATION TEST REPORT OF 6/7/78 FOR FIREWALL III CLASS 1E ELECTRIC CABLES.

FACILITY: TURKEY POINT
 UNIT: 3 & 4
 LOCKET: 50-250 & 50-251

SYSTEM EQUIPMENT EVALUATION WORK SHEET

PAGE 13-27

REV. 0

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENT REFERENCE*		Qualification Method	Outstanding Items
	Parameter	Specification	Qualification	Specification	Qualification		
SYSTEM: REACTOR COOLANT PLANT ID NO. CABLE CODE LP1 Component: 2/C #16 CABLE W/CROSS-LINKED EPR INSUL. AND HYPALON JACKET FUNCTION: LOCA/HELB. (in & out) MITIGATE & MONITOR MANUFACTURER: ANACONDA MODEL NO: FLAME-GUARD (FR-EP) ACCURACY: Spec: N/A Demon: N/A SERVICE: 600V INSTRUMENT CABLE LOCATION: INSIDE CONTAINMENT AND OUTSIDE CONTAINMENT Area VARIOUS Elev. VARIOUS Ref. Dwg. No. Mech. N/A Elect. M/R 5177-105-E-862.1 Flood Level Elev: 19'-0" DOC. REF. 3.2 Above Flood Level: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Operating Time	31 DAYS	31 DAYS	NOTE 2	62 (page 3-9 and analysis)	SIMULTANEOUS TEST AND ENGINEERING ANALYSIS	NONE
	Temperature (°F)	SEE ATTACHMENT #1	385	1	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Pressure (PSIA)	SEE ATTACHMENT #2	80.7	1	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Relative Humidity (%)	100	100	ASSUMED	62 (page 3-2)	SIMULTANEOUS TEST	NONE
	Chemical Spray	2030 PPM BORON SOL AS BORIC ACID	6200 PPM BORON AS H ₃ BO ₃ BUFFERED TO A pH of 8.6-10.0	3	62 (page 3-9)	SIMULTANEOUS TEST	NONE
	Radiation	SEE ATTACHMENT #3	2 x 10 ⁸ RADS	2	62 (page 3-1)	SEQUENTIAL TEST	NONE
	Aging	40 YEARS	40 YEARS	SEE NOTE 1	62 (page 3-1)	SEQUENTIAL TEST	NONE
	Submergence	N/A	N/A	N/A	N/A	N/A	N/A
	NOTES: 1) In the FSAR aging and submergence were not considered environmental parameters. Aging required assumed to be 40 years. 2) This time is based on the longest operating time of the devices served by this cable.						

- *DOCUMENT REFERENCES:
1. POST LOCA PRESSURE AND TEMPERATURE TRANSIENTS INSIDE CONTAINMENT - ENGINEERING ANALYSIS.
 2. POST LOCA RADIATION DOSE INSIDE CONTAINMENT - MATHEMATICAL ANALYSIS.
 3. FPL LETTER TO USNRC L-75-210 DATED 4/30/75.
 - 3.2 CALCULATION OF POST LOCA CONTAINMENT SUMP LEVEL.
 62. QUALIFICATION TEST REPORT #F-C4836-2 FOR ANACONDA FLAME-GUARD (FR-EP) IE CABLES, AND TEMPERATURE EXTRAPOLATION.