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ATTACHMENT C

TABLE NOS. 3-16 AND 4-3

WESTINGHOUSE PROPRIETARY CLASS 3

SEABROOK STATION

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TABLE 4-3

PROTECTION CHANNEL	TOTAL ALLOWANCE		(A)	(8)	(S)	(8)	(T)
	(TA)	(8)		(1)		(2)	
1 POWER RANGE, NEUTRON FLUX-HIGH SETPOINT	7.5			*8.0		0	
2 POWER RANGE, NEUTRON FLUX-LOW SETPOINT	8.3					0	
3 POWER RANGE, NEUTRON FLUX-HIGH POSITIVE RATE	1.6					0	
4 POWER RANGE, NEUTRON FLUX-HIGH NEGATIVE RATE	1.6					0	
5 INTERMEDIATE RANGE, NEUTRON FLUX	17.0					0	
6 SOURCE RANGE, NEUTRON FLUX	17.0					0	
7 OVERTEMPERATURE ΔT	6.5				1.04 * 0.47		
8 OVERPOWER ΔT	4.8					0.12	
9 PRESSURIZER PRESSURE-LOW, REACTOR TRIP	3.1					1.69	
10 PRESSURIZER PRESSURE-HIGH	3.1					1.69	
11 PRESSURIZER WATER LEVEL-HIGH	8.0					1.82	
12 LOSS OF FLOW	2.5					0.60	
13 STEAM GENERATOR WATER LEVEL-LOW-LOW	17.0					1.76	
14 UNDERVOLTAGE-RCP	15.0					0	
15 UNDERFREQUENCY-RCP	2.9					0	
16 CONTAINMENT PRESSURE - HIGH 1	4.2					1.67	
17 PRESSURIZER PRESSURE - LOW-S-1	13.1					1.69	
18 STEAMLINE PRESSURE-LOW	13.1					1.63	
19 CONTAINMENT PRESSURE - HIGH 3	4.0					1.67	
20 CONTAINMENT PRESSURE - HIGH 2	5.2					1.67	
21 STEAM GENERATOR WATER LEVEL-HIGH-HIGH	4.0					1.76	
22 NEGATIVE STEAM PRESSURE RATE -HIGH	3.0					0	
23 Tavg - LOW	4.6					1.38	
24 Tavg - LOW-LOW	4.6					1.38	

NOTES:

- (1) [ ] \*8.0
- (2) [ ]
- (3) [ ]
- (4) [ ]
- (5) TAVG-100°F  
P - 800 PSI  
# - 120% RTP  
ΔT - 89.1°F  
ΔI - \*60XI
- (6) TAVG - 100°F  
P - 800 PSI  
# - 120% RTP  
ΔT - 89.1°F
- (7) AS NOTED IN NOTES 1,2,3 AND 4 OF TABLE 2.2-1 OF STS
- (8) ALL VALUES IN PERCENT SPAN
- (9) [ ] \*8.0

SYSTEM STS SETPOINT INPUTS  
 K STATION

(8) (3)	(8) (4)	(8) (4)	INSTRUMENT SPAN	STS TRIP SETPOINT	STS ALLOWABLE VALUE	MAXIMUM VALUE (9)	
1.75	4.56		120% RIP	109% RIP	111.1% RIP		1
1.75	4.56		120% RIP	25% RIP	27.1% RIP		2
1.08	0.50		120% RIP	5.0% RIP	6.3% RIP		3
1.08	0.50		120% RIP	5.0% RIP	6.3% RIP		4
5.05	8.41		120% RIP	25% RIP	31.1% RIP		5
5.59	10.01		1.0E+06 CPS	1.0E+05 CPS	1.6E+05 CPS		6
2.97	3.31		(5)	FUNCTION (7)	FUNCTION (7)+3.0% *I SPAN		7
3.41	1.43		(6)	FUNCTION (7)	FUNCTION (7)+3.4% *I SPAN		8
1.29	0.71		800 PSI	1945 PSIG	1935 PSIG		9
1.29	0.71		800 PSI	2385 PSIG	2395 PSIG		10
1.83	2.18		100% SPAN	92% SPAN	93.8% SPAN		11
0.53	1.87		120% DESIGN FLOW	90.0% FLOW	89.4% FLOW		12
1.10	15.28		100% SPAN	17.0% SPAN	15.9% SPAN		13
10.50	1.39		3600 VOLTS	10200 VOLTS	9822 VOLTS		14
1.04	0		17.0 HERTZ	55.5 HERTZ	55.3 HERTZ		15
1.75	0.71		60 PSI	4.3 PSIG	5.3 PSIG		16
1.29	10.71		800 PSI	1850 PSIG	1840 PSIG		17
1.30	10.71		1300 PSI	585 PSIG	568 PSIG		18
1.75	0.71		60 PSI	18.0 PSIG	19.1 PSIG		19
1.75	0.71		60 PSI	4.3 PSIG	5.3 PSIG		20
1.20	2.18		100% SPAN	86.0% SPAN	87.2% SPAN		21
1.75	0.50		1300 PSIG	-100 PSI	-123 PSI		22
2.82	1.12		100 *F	564 *F	561.2 *F		23
2.82	1.12		100 *F	550 *F	547.2 *F		24

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FOR INTERNAL PLANT USE ONLY

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NOTES FOR TABLE

- 1. ALL VALUES IN PERCENT SPAN.
- 2. AS NOTED IN TABLE 15.0-4 OF FSAR
- 3. AS NOTED IN TABLES 2.2-1 AND 2.2-2 OF PLANT TECHNICAL SPECIFICATIONS.
- 4. [ ] \*\*\*
- 5. NOT USED IN SAFETY ANALYSIS
- 6. AS NOTED IN FIGURE 15.0-1 OF FSAR
- 7. AS NOTED IN TABLE 2.2-1 NOTE 1 OF PLANT TECHNICAL SPECIFICATIONS
- 8. AS NOTED IN TABLE 2.2-1 NOTE 3 OF PLANT TECHNICAL SPECIFICATIONS
- 9.c ] \*\*\*

- 10.c
- 11. [ ] \*\*\*
- 12. ALLOWANCE FOR REFERENCE LEG HEATUP
- 13.c ] \*\*\*
- 14. [ ] \*\*\*
- 15. INCLUDED
- 16. INCORE/EXCORE f(\*1) COMPARISON AS NOTED IN TABLE 4.3-1 OF PLANT TECHNICAL SPECIFICATIONS
- 17.c ] \*\*\*

TABLE

REACTOR PROTECTION SYSTEM/E  
ACTUATION SYSTEM CHANNELS  
SEABROOK

	PROTECTION CHANNEL	SENSOR						
		1 PROCESS MEASUREMENT ACCURACY (1)	2 PRIMARY ELEMENT ACCURACY (1)	3 CALIBRATION ACCURACY (1)	4 PRESSURE EFFECTS (1)	5 TEMPERATURE EFFECTS (1)	6 DRIFT (1)	7 ENVIRONMENT ALLOWANCE (1)
1	POWER RANGE, NEUTRON FLUX - HIGH SETPOINT							
2	POWER RANGE, NEUTRON FLUX - LOW SETPOINT							
3	POWER RANGE, NEUTRON FLUX - HIGH POSITIVE RATE							
4	POWER RANGE, NEUTRON FLUX - HIGH NEGATIVE RATE							
5	INTERMEDIATE RANGE, NEUTRON FLUX							
6	SOURCE RANGE, NEUTRON FLUX							
7	OVERTEMPERATURE *T            *T CHANNEL (RdF RTD)							
8	TAVG CHANNEL (RdF RTD)							
9								
10	(VERITRAK XMITTER)            PRESSURIZER PRESSURE CHANNEL							
11	f(*1) CHANNEL							
12	OVERPOWER *T                    *T CHANNEL (RdF RTD)							
13								
14	TAVG CHANNEL (RdF RTD)							
15	PRESSURIZER PRESSURE - LOW, REACTOR TRIP (VERITRAK XMITTER)							
16	PRESSURIZER PRESSURE - HIGH (VERITRAK XMITTER)							
17	PRESSURIZER WATER LEVEL - HIGH (VERITRAK XMITTER)							
18	LOSS OF FLOW (VERITRAK XMITTER)							
19	STEAM GENERATOR WATER LEVEL - LOW-LOW (VERITRAK XMITTER)							
20	UNDervOLTAGE - RCP (G.E. NGV RELAY)							
21	UNDERFREQUENCY - RCP (G.E. SFF RELAY)							
22	CONTAINMENT PRESSURE HIGH-1 (BARTON XMITTER)							
23	PRESSURIZER PRESSURE - LOW, SI (VERITRAK XMITTER)							
24	STEAMLINE PRESSURE - LOW (VERITRAK XMITTER)							
25	CONTAINMENT PRESSURE HIGH-2 (BARTON XMITTER)							
26	CONTAINMENT PRESSURE HIGH-3 (BARTON XMITTER)							
27	NEGATIVE STEAM PRESSURE RATE-HIGH (VERITRAK XMITTER)							
28	STEAM GENERATOR WATER LEVEL -HIGH-HIGH (VERITRAK XMITTER)							
29	Tavg - LOW (RdF RTD)							
30	Tavg -LOW-LOW (RdF RTD)							

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- 18. NOT NOTED IN TABLE 15.0-4 OF FSAR BUT USED IN SAFETY ANALYSIS
- 19. ALLOWANCE FOR MEASUREMENT AND TEST EQUIPMENT UNCERTAINTY.

3-16

ENGINEERED SAFETY FEATURES  
CHANNEL ERROR ALLOWANCES  
STATION

INSTRUMENT RACK				12	13	14	15	16	17
8	9	10	11	12	13	14	15	16	17
CALIBRATION ACCURACY (1)	COMPARATOR SETTING ACCURACY (1)	TEMPERATURE EFFECTS (1)	DRIFT (1)	SAFETY ANALYSIS LIMIT (2)	STS ALLOWABLE VALUE (3)	STS TRIP SETPOINT (3)	TOTAL ALLOWANCE (1)	CHANNEL STATISTICAL ALLOWANCE (1)	MARGIN (1)
			1.0	118% RTP	111.1% RTP	109% RTP			
			1.0	35% RTP	27.1% RTP	25% RTP			
			0.5	(5)	6.3% RTP	5.0% RTP			
			0.5	6.9% RTP (18)	6.3% RTP	5.0% RTP			
			4.2	(5)	31.1% RTP	25% RTP			
			3.0	(5)	1.6E+05 CPS	1.0E+05 CPS			
			1.0						
			1.0						
				function (6)	function (7) +3.0% AT open	function (7)			
			---						
			---						
			1.0						
				function (6)	function (8) +3.4% AT open	function (8)			
			1.0						
			1.0	1920 psig	1935 psig	1945 psig			
			1.0	2410 psig	2395 psig	2385 psig			
			1.0	(5)	93.8% open	92% open			
			0.6	87% design	89.4% design	90.0% design			
			1.0	0% open	15.9% open	17.0% open			
			1.5	9660 volts	9822 volts	10200 volts			
			1.0	55.0 Hz (18)	55.3 Hz	55.5 Hz			
			1.0	6.8 psig (18)	5.3 psig	4.3 psig			
			1.0	1745 psig (18)	1840 psig	1850 psig			
			1.0	415 psig (18)	568 psig	585 psig			
			1.0	7.4 psig	5.3 psig	4.3 psig			
			1.0	20.4 psig	19.1 psig	18.0 psig			
			1.0	(5)	≤123 psi	≤100 psi			
			1.0	90% open	87.2% open	86.0% open			
			2.0	(5)	561.2 °F	564 °F			
			2.0	(5)	547.2 °F	550 °F			

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