ENCLOSURE 3

VOGTLE ELECTRIC GENERATING PLANT
PROPOSED CHANGES TO TECHNICAL SPECIFICATIONS

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
b. Two Loops (Above P-7 and below P-8)	3/loop	2/loop in two operating loops	2/loop each operating loop	1[f]	6[b]
(LOOP1 LOOP2 LOOP3 LOOP4 FI-0414 FI-0424 FI-0434 FI-0444 FI-0415 FI-0425 FI-0435 FI-0445 FI-0416 FI-0426 FI-0436 FI-0446)					
13. Steam Generator Water Level--Low-Low*	4/stm. gen.	2/stm. gen. in any operating stm. gen.	3/stm. gen. each operating stm. gen.	1, 2	6[b]
(LOOP1 LOOP2 LOOP3 LOOP4 LI-0517 LI-0527 LI-0537 LI-0547 LI-0518 LI-0528 LI-0538 LI-0548 LI-0519 LI-0529 LI-0539 LI-0549 LI-0551 LI-0552 LI-0553 LI-0554)					
14. Undervoltage--Reactor Coolant Pumps	4-2/bus	2[i]	3	1[f]	9[b]
15. Underfrequency--Reactor Coolant Pumps	4-2/bus	2[i]	3	1[f]	9[b]
16. Turbine Trip					
a. Low Fluid Oil Pressure (PT-6161, PT-6162, PT-6163)	3	2	2	1[e]	6[b]
b. Turbine Stop Valve Closure	4	4	1	1[e]	12[b]
17. Safety Injection Input from ESF	2	1	2	1, 2	7

*See Specification 3.3.3.F

TABLE 3.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
18. Reactor Trip System Interlocks					
a. Intermediate Range Neutron Flux, P-6 (NI-0035B,D&E, NI-0036B,D&G)	2	1	2	2[c]	8
b. Power Range Neutron Flux, P-8 (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)	4	2	3	1	8
c. Power Range Neutron Flux, P-9 (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)	4	2	3	1	8
d. Power Range Neutron Flux, P-10 (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)	4	2	3	1, 2	8
e. Turbine Impulse Chamber Pressure, P-13 (PI-0505, PI-0506)	2	1	2	1	8
19. Reactor Trip Breakers	2	1	2	1, 2	10, 13
	2	1	2	3[a], 4[a], 5[a]	11
20. Automatic Trip and Interlock	2	1	2	1, 2	10 7
Logic	2	1	2	3[a], 4[a], 5[a]	11

TABLE 3.3-1 (Continued)

TABLE NOTATIONS

a When the Reactor Trip System breakers are in the closed position and the Control Rod Drive System is capable of rod withdrawal.

b The provisions of Specification 3.0.4 are not applicable.

c Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint.

d Below the P-10 (Low Setpoint Power Range Neutron Flux Interlock) Setpoint.

e Above the P-9 (Reactor Trip on Turbine Trip Interlock) Setpoint.

f Above the P-7 (Low Power Reactor Trip Block) Setpoint.

g ~~The applicable Modes and Action Statement for these channels noted in Table 3.3-3 are more restrictive and, therefore, applicable~~. Not used.

h Above the P-8 (Single Loop Loss of Flow) Setpoint.

i Trip logic consists of undervoltage/underfrequency for Reactor Coolant Pumps 1 or 2 and 3 or 4.

j The Source Range High Flux at Shutdown Alarm may be blocked during reactor startup in accordance with approved procedures.

ACTION STATEMENTS

ACTION 1 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in HOT STANDBY within the next 6 hours.

ACTION 2 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 6 hours,

b. The Minimum Channels OPERABLE requirement is met; however, ~~the inoperable channel~~ a channel may be bypassed for up to 4 hours for surveillance testing ~~of other channels~~ per Specification 4.3.1.1, and

c. Either, THERMAL POWER is restricted to less than or equal to 75% of RATED THERMAL POWER and the Power Range Neutron Flux Trip Setpoint is reduced to less than or equal to 85% of RATED THERMAL POWER within 4 hours; or, the QUADRANT POWER TILT RATIO is monitored at least once per 12 hours per Specification 4.2.4.2.

TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

ACTION 3 - With the number of channels OPERABLE one less than the Minimum Channels OPERABLE requirement and with the THERMAL POWER level:

a. Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 Setpoint, and

b. Above the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint but below 10% of RATED THERMAL POWER, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above 10% of RATED THERMAL POWER.

ACTION 4 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, suspend all operations involving positive reactivity changes.

ACTION 5 - a. With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or open the Reactor Trip System breakers, suspend all operations involving positive reactivity changes and verify valves 1208-U4-175, 1208-U4-177, 1208-U4-183, and 1208-U4-176 are closed and secured in position within the next hour.

b. With no channels OPERABLE, open the Reactor Trip Breakers, suspend all operations involving positive reactivity changes, and verify compliance with the SHUTDOWN MARGIN requirements of Specification 3.1.1.1 or 3.1.1.2, as applicable, within 1 hour and every 12 hours thereafter. Verify valves 1208-U4-175, 1208-U4-177, 1208-U4-183, and 1208-U4-176 are closed and secured in position within 4 hours and verified to be closed and secured in position every 14 days.

ACTION 6 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 6 hours, and

b. The Minimum Channels OPERABLE requirement is met; however, ~~the inoperable channel~~ may be bypassed for up to 4 hours for surveillance testing ~~of other channels~~ per Specification 4.3.1.1. — a channel

ACTION 7 - (~~Not used~~) With the number of OPERABLE Channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is operable.

TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

ACTION 8 - With less than the Minimum Number of Channels OPERABLE, within 1 hour determine by observation of the associated permissive status light(s) that the interlock is in its required state for the existing plant condition, or apply Specification 3.0.3.

ACTION 9 - ~~(Not used)~~

ACTION 10 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours; however, one channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is OPERABLE.

ACTION 11 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or open the Reactor Trip System breakers within the next hour.

ACTION 12 - With the number of OPERABLE channels less than the Total Number of Channels, operation may continue provided the inoperable channels are placed in the tripped condition within 6 hours.

ACTION 13 - With one of the diverse trip features (undervoltage or shunt trip attachment) inoperable restore it to OPERABLE status within 48 hours or declare the breaker inoperable and apply ACTION 10. The breaker shall not be bypassed while one of the diverse trip features is inoperable except for the time required for performing maintenance to restore the breaker to OPERABLE status.

With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 6 hours, and

b. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 4 hours for surveillance testing of other channels per Specification 4.3.1.1

TABLE 4.3-1

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Manual Reactor Trip	N.A.	N.A.	N.A.	R(14)	N.A.	1, 2, 3[a], 4[a], 5[a]
2. Power Range, Neutron Flux (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)						
a. High Setpoint	S	D(2, 4), M(3, 4), Q(4, 6), R(4, 5)	~~Q(1)~~	N.A.	N.A.	1[f], 2[f]
b. Low Setpoint	S	R(4)	S/U(1)	N.A.	N.A.	1[d,f], 2[f]
3. Power Range, Neutron Flux, High Positive Rate (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)	N.A.	R(4)	~~Q(1)~~	N.A.	N.A.	1[f], 2[f]
4. Deleted						
5. Intermediate Range, Neutron Flux (NI-0035B,D&E, NI-0036B,D&G)	S	R(4, 5)	S/U(1)	N.A	N.A.	1[d,f], 2[f]
6. Source Range, Neutron Flux (NI-0031B,D&E, NI-0032B,D&G)	S	R(4, 5)	~~S/U(1), Q(9, 1/)~~ S/U(1), Q(9)	N.A.	N.A.	2[c,f], 3[f], 4[f], 5[f]
7. Overtemperature ΔT (TDI-0411C, TDI-0421C, TDI-0431C, TDI-0441C)	S	R	~~Q(1)~~	N.A.	N.A.	1[f], 2[f]

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
8. Overpower ΔT (TDI-0411B, TDI-0421B, TDI-0431B, TDI-0441B)	S	R	Q(~~M~~)	N.A.	N.A.	1[f], 2[f]
9. Pressurizer Pressure--Low (PI-0455A,B&C, PI-0456 & PI-0456A, PI-0457 & PI-0457A, PI-0458 & PI-0458A)	S	R	Q(~~M~~)	N.A.	N.A.	1[e,f]
10. Pressurizer Pressure--High (PI-0455A,B&C, PI-0456 & PI-0456A, PI-0457 & PI-0457A, PI-0458 & PI-0458A)	S	R	Q(~~M~~)	N.A.	N.A.	1[f], 2[f]
11. Pressurizer Water Level--High* (LI-0459A, LI-0460A, LI-0461A)	S	R	Q(~~M~~)	N.A.	N.A.	1[e,f]
12. Reactor Coolant Flow--Low (LOOP1 FI-0414 FI-0415 FI-0416 / LOOP2 FI-0424 FI-0425 FI-0426 / LOOP3 FI-0434 FI-0435 FI-0436 / LOOP4 FI-0444 FI-0445 FI-0446)	S	R	Q(~~M~~)	N.A.	N.A.	1[e,f]

*See Specification 4.3.3.6

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
13. Steam Generator Water Level--Low-Low*	S	R	Q(~~17~~, ~~18~~)	N.A.	N.A.	1, 2[f]
(LOOP1 LI-0517 LI-0518 LI-0519 LI-0551 / LOOP2 LI-0527 LI-0528 LI-0529 LI-0552 / LOOP3 LI-0537 LI-0538 LI-0539 LI-0553 / LOOP4 LI-0547 LI-0548 LI-0549 LI-0554)						
14. Undervoltage - Reactor Coolant Pumps	N.A.	R	N.A.	Q(~~17~~)	N.A.	1[e]
15. Underfrequency - Reactor Coolant Pumps	N.A.	R	N.A.	Q(~~17~~)	N.A.	1[e]
16. Turbine Trip						
a. Low Fluid Oil Pressure (PT-6161, PT-6162, PT-6163)	N.A.	R	S/U(1, 10)	N.A.	N.A.	1[b,f]
b. Turbine Stop Valve Closure	N.A.	R	N.A.	S/U(1, 10)	N.A.	1[b]
17. Safety Injection Input from ESF	N.A.	N.A.	N.A.	R	N.A.	1, 2
18. Reactor Trip System Interlocks						
a. Intermediate Range Neutron Flux, P-6 (NI-0035B,D&E, NI-0036B,D&G)	N.A.	R(4)	R	N.A.	N.A	2[c,f]

*See Specification 4.3.3.6

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
18. Reactor Trip System Interlocks (Continued)						
b. Power Range Neutron Flux, P-8 (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)	N.A.	R(4)	R	N.A.	N.A.	1[f]
c. Power Range Neutron Flux, P-9 (NI-0041B&C, NI-0042B&C, NI-0043B&C, NI-0044B&C)	N.A.	R(4)	R	N.A.	N.A.	1[f]
d. Power Range Neutron Flux, P-10	N.A.	R(4)	R	N.A.	N.A.	1[f], 2[f]
e. Turbine Impulse Chamber Pressure, P-13 (PI-0505, PI-0506)	N.A.	R	R	N.A.	N.A.	1[f]
19. Reactor Trip Breaker	N.A.	N.A.	N.A.	M(7, 11)	N.A.	1, 2, 3[a], 4[a], 5[a]
20. Automatic Trip and Interlock Logic	N.A.	N.A.	N.A.	N.A.	M(7)	1, 2, 3[a], 4[a], 5[a]
21. Reactor Trip Bypass Breaker	N.A.	N.A.	N.A.	M(15),R(16)	N.A.	1, 2, 3[a], 4[a], 5[a]

f This function may be bypassed for surveillance testing provided that the applicable Action Statement requirements are met.

TABLE 4.3-1 (Continued)

TABLE NOTATIONS

a When the Reactor Trip System breakers are closed and the Control Rod Drive System is capable of rod withdrawal.

b Above P-9 (Reactor Trip on Turbine Trip Interlock) Setpoint.

c Below P-6 (Intermediate Range Neutron Flux Interlock) Setpoint.

d Below P-10 (Low Setpoint Power Range Neutron Flux Interlock) Setpoint.

e Above P-7 (Low Power Reactor Trip Block) Setpoint.

(1) If not performed in previous 31 days.

(2) Comparison of calorimetric to excore power indication above 15% of RATED THERMAL POWER. Adjust excore channel gains consistent with calorimetric power if absolute difference is greater than 2%. The provisions of Specification 4.0.4 are not applicable to entry into MODE 2 or 1.

(3) Single point comparison of incore to excore AXIAL FLUX DIFFERENCE above 15% of RATED THERMAL POWER. Recalibrate if the absolute difference is greater than or equal to 3%. The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1. For the purpose of this surveillance requirement, monthly shall mean at least once per 31 EFPD.

(4) Neutron detectors may be excluded from CHANNEL CALIBRATION.

(5) Detector plateau curves shall be obtained, and evaluated. For the Intermediate Range and Power Range Neutron Flux channels the provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1.

(6) Incore - Excore Calibration, above 75% of RATED THERMAL POWER. This is the determination of the response of the excore power range detectors to the incore measured axial power distribution to generate setpoints for the CHANNEL CALIBRATION. The provisions of Specification 4.0.4 are not applicable for entry into MODE 2 or 1. For the purpose of this surveillance requirement, quarterly shall mean at least once per 92 EFPD.

(7) Each train shall be tested at least every 62 days on a STAGGERED TEST BASIS.

(8) Not used.

(9) Quarterly surveillance in MODES 3^e, 4^e, and 5^a shall also include verification that permissives P-6 and P-10 are in their required state for existing plant conditions by observation of the permissive window. Quarterly surveillance shall include verification of the Source Range High Flux at Shutdown Alarm Setpoint of less than or equal to 2.30 times background.

TABLE 4.3-1 (Continued)

TABLE NOTATIONS (Continued)

(10) Setpoint verification is not applicable.

(11) The TRIP ACTUATING DEVICE OPERATIONAL TEST shall include independent verification of the OPERABILITY of the Undervoltage and Shunt trip of the Reactor Trip Breaker.

(12) Not used.

(13) Not used.

(14) The TRIP ACTUATING DEVICE OPERATIONAL TEST shall independently verify the OPERABILITY of the undervoltage and shunt trip circuits for the Manual Reactor Trip Function. The test shall also verify the OPERABILITY of the Bypass Breaker trip circuit(s).

(15) Local manual shunt trip prior to placing breaker in service.

(16) Automatic undervoltage trip.

(17) ~~Each channel shall be tested at least every 92 days on a STAGGERED TEST BASIS~~.

(18) ~~The surveillance frequency and/or MODES specified for these channels in Table 4.3-2 are more restrictive and, therefore, applicable~~.

TABLE 3.3-2

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
1. Safety Injection (Reactor Trip, Feedwater Isolation, Component Cooling Water, Control Room Emergency Filtration System Actuation, Start Diesel Generators, Containment Cooling Fans, Nuclear Service Cooling Water, Containment Isolation, Containment Ventilation Isolation, and Auxiliary Feedwater Motor-Driven Pumps).					
a. Manual Initiation	2	1	2	1, 2, 3, 4	19
b. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	14
c. Containment Pressure--High-1* (PI-0934, PI-0935, PI-0936)	3	2	2	1, 2, 3, 4	~~15~~ 20
d. Pressurizer Pressure--Low (PI-0455A,B&C, PI-0456 & PI-0456A, PI-0457 & PI-0457A, PI-0458 & PI-0458A)	4	2	3	1, 2, 3[a]	20
e. Steam Line Pressure--Low*	3/steam line	2/steam line any steam line	2/steam line	1, 2, 3[a]	~~15~~ 20

(LOOP1 PI-0514A,B&C PI-0515A PI-0516A; LOOP2 PI-0524A&B PI-0525A PI-0526A; LOOP3 PI-0534A&B PI-0535A PI-0536A; LOOP4 PI-0544A,B&C PI-0545A PI-0546A)

*See Specification 3.3.3.6

TABLE 3.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
4. Steam Line Isolation (Continued)					
c. Containment Pressure--High-2* (PI-0934, PI-0935, PI-0936)	3	2	2	1, 2[f], 3[f]	15 20
d. Steam Line Pressure--Low*	3/steam line	2/steam line any steam line	2/steam line	1, 2[f], 3[a,f]	15 20
(LOOP1 PI-0514A,B&C PI-0515A PI-0516A) (LOOP2 PI-0524A&B PI-0525A PI-0526A) (LOOP3 PI-0534A&B PI-0535A PI-0536A) (LOOP4 PI-0544A,B&C, PI-0545A, PI-0546A)					
e. Steam Line Pressure - Negative Rate--High*	3/steam line	2/steam line any steam line	2/steam line	3[b,f]	15 20
(LOOP1 PI-0514A,B&C PI-0515A PI-0516A) (LOOP2 PI-0524A&B PI-0525A PI-0526A) (LOOP3 PI-0534A&B PI-0535A PI-0536A) (LOOP4 PI-0544A,B&C PI-0545A PI-0546A)					
5. Turbine Trip and Feedwater Isolation					
a. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2	25
b. Low RCS Tavg Coincident with Reactor Trip**					
1. Low RCS T_{avg}	4	2	3	1, 2	20
2. Reactor Trip, P-4	See Functional Unit 9.b. for P-4 requirements.				

*See Specification 3.3.3.6
**Feedwater isolation only. Turbine trip occurs on reactor trip.

TABLE 3.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
e. Trip of All Main Feedwater Pumps, Start Motor-Driven Pumps	2	2	2	1, 2	23
f. Manual Initiation	3[h]	1/pump	1/pump	1, 2, 3	23
7. Semi-Automatic Switchover to Containment Emergency Sump					
a. Automatic Actuation Logic and Actuation Relays	2	1	2	1, 2, 3, 4	14
b. RWST Level--Low-Low Coincident with Safety Injection* (LI-0990A&B, LI-0991A&B, LI-0992A, LI-0993A)	4	2	3	1, 2, 3, 4	~~17~~ 15
	See Functional Unit 1. above for all Safety Injection initiating functions and requirements.				
8. Loss of Power to 4.16 kV ESF Bus					29
a. 4.16 kV ESF Bus Undervoltage-Loss of Voltage	4/bus	2/bus	3/bus	1, 2, 3, 4	~~20~~
b. 4.16 kV ESF Bus Undervoltage-Degraded Voltage	4/bus	2/bus	3/bus	1, 2, 3, 4	29 ~~20~~
9. Engineered Safety Features Actuation System Interlocks					
a. Pressurizer Pressure, P-11 (PI-0455A,B&C, PI-0456 & PI-0456A, PI-0457 & PI-0457A)	3	2	2	1, 2, 3	21
b. Reactor Trip, P-4	2	1	2	1, 2, 3	23

*See Specification 3.3.3.6

TABLE 3.3-2 (Continued)

TABLE NOTATIONS

a Trip function may be blocked in this MODE below the P-11 (Pressurizer Pressure Interlock) Setpoint.

b Trip function automatically blocked above P-11 and may be blocked below P-11 when Safety Injection on low steam line pressure is not blocked.

c During movement of irradiated fuel or movement of loads over irradiated fuel within containment.

d ~~The provisions of Specification 3.0.4 are not applicable.~~ Not used.

e During movement of irradiated fuel or movement of loads over irradiated fuel.

f Not applicable if one main steam isolation valve and associated bypass isolation valve per steamline is closed.

g Containment Ventilation Radiation (RE-2565) is treated as one channel and is considered OPERABLE if the particulate (RE-2565A) and iodine monitors (RE-2565B) are OPERABLE or the noble gas monitor (RE-2565C) is OPERABLE.

h Manual initiation of Auxiliary Feedwater is accomplished via the pump handswitches.

i Whenever irradiated fuel is in either storage pool.

j For actions associated with inoperable instrumentation, follow actions specified in Specification 3.9.12.

ACTION STATEMENTS

ACTION 14 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within ~~6~~ 12 hours and in COLD SHUTDOWN within the following 30 hours; however, one channel may be bypassed for up to ~~2~~ 4 hours for surveillance testing per Specification 4.3.2.1, provided the other channel is OPERABLE.

ACTION 15 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed until performance of the next required ANALOG CHANNEL OPERATIONAL TEST provided the inoperable channel is placed in the tripped condition within 1 hour.

ACTION 16 - With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9 (Mode 6).

With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the bypassed condition and the Minimum Channels OPERABLE requirement is met. One additional channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1.

TABLE 3.3-2 (Continued)

ACTION STATEMENTS (Continued)

ACTION 17 - With the number of OPERABLE channels one less than the Total Number of Channels, operation may proceed provided the inoperable channel is placed in the bypassed condition and the Minimum Channels OPERABLE requirement is met. One additional channel may be bypassed for up to 2 4 hours for surveillance testing per Specification 4.3.2.1.

ACTION 18 - With one less than the Minimum Channels OPERABLE requirement, operation may continue provided the containment purge supply and exhaust valves are closed within 24 hours.

ACTION 19 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

ACTION 20 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 1 6 hours, and

b. The Minimum Channels OPERABLE requirement is met; however, a ~~one additional~~ channel may be bypassed for up to 2 4 hours for surveillance testing ~~of other channels~~ per Specification 4.3.2.1.

ACTION 21 - With the number of OPERABLE Channels less than the Minimum Channels OPERABLE requirement, within 1 hour determine by observation of the associated permissive status light(s) that the interlock is in its required state for the existing plant condition, or apply Specification 3.0.3.

ACTION 22 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 6 hours, or be in at least HOT STANDBY within the next 6 hours and in at least HOT SHUTDOWN within the following 6 hours; however, one channel may be bypassed for up to 2 4 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.

ACTION 23 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within 6 hours and in at least HOT SHUTDOWN within the following 6 hours.

TABLE 3.3-2 (Continued)

restore the inoperable channel to OPERABLE status within 6 hours, or

ACTION STATEMENTS (Continued)

ACTION 24 - With the number of OPERABLE channels one less than the Total Number of Channels, restore the inoperable channel to OPERABLE status within 48 hours or declare the associated valve inoperable and take the ACTION required by Specification 3.7.1.5.

ACTION 25 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, be in at least HOT STANDBY within the next 6 hours; however, one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.2.1 provided the other channel is OPERABLE.

ACTION 26 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore at least one channel to OPERABLE status within 7 days or within the next 6 hours initiate and maintain operation of the Control Room Emergency Filtration System in the Emergency mode#*.

ACTION 27 - a) With one channel inoperable in a unit, restore the inoperable channel to OPERABLE status within 7 days OR within the next 6 hours initiate and maintain operation of one Control Room Emergency Filtration System (CREFS) in the unaffected unit in the emergency mode#*.

b) With one channel inoperable in each unit, restore each inoperable channel to OPERABLE status within 7 days OR within the next 6 hours initiate and maintain operation of one CREFS in each unit in the emergency mode#*.

c) With two channels inoperable in a unit, within 1 hour either 1) initiate and maintain operation of the two CREFS in the unaffected unit* OR 2) initiate and maintain operation of one CREFS in each unit in the emergency mode#*.

d) With three channels inoperable, within 1 hour initiate and maintain operation of the two CREFS in the emergency mode in the unit with only one channel inoperable*.

e) With four channels inoperable, within 1 hour initiate and maintain operation of two CREFS in the emergency mode*.

ACTION 28 - a) With one channel inoperable in a unit, restore the inoperable channel to OPERABLE status within 7 days, OR within the next 6 hours either 1) lock closed the affected and lock open the unaffected OSA intake dampers* OR 2) initiate and maintain operation of one CREFS in the emergency mode#*.

ACTION 29 - See Insert 1

#The initiated CREFS shall be Train B unless Train B is inoperable.
*The provisions of Specification 3.0.4 are not applicable to either unit.

Insert 1

ACTION 29 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

a. The inoperable channel is placed in the tripped condition within 6 hours, and

b. The Minimum Channels OPERABLE requirement is met; however, an additional channel may be bypassed for up to 2 hours for surveillance testing of other channels per Specification 4.3.2.1.

TABLE 4.3-2

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. Safety Injection (Reactor Trip, Feedwater Isolation, Component Cooling Water, Control Room Emergency Filtration System Actuation, Start Diesel Generators, Containment Cooling Fans, Nuclear Service Cooling Water, Containment Isolation, Containment Ventilation Isolation, and Auxiliary Feedwater Motor-driven Pumps).								
a. Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
c. Containment Pressure-High-1* (PI-0934, PI-0935, PI-0936)	S	R	M Q	N.A.	N.A.	N.A.	N.A.	1, 2, 3, 4
d. Pressurizer Pressure-Low (PI-0455A,B&C, PI-0456 & PI-0156A, PI-0457 & PI-0457A, PI-0458 & PI-0458A)	S	R	M Q	N.A.	N.A.	N.A.	N.A.	1, 2, 3

*See Specification 4.3.3.6

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
1. (Continued)								
e. Steam Line Pressure-Low*	S	R	~~M~~ Q	N.A.	N.A.	N.A.	N.A.	1, 2, 3##
(LOOP1 PI-0514A,B&C PI-0515A PI-0516A; LOOP2 PI-0524A&B PI-0525A PI-0526A; LOOP3 PI-0534A&B PI-0535A PI-0536A; LOOP4 PI-0544A,B&C PI-0545A PI-0546A)								
2. Containment Spray								
a. Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
c. Containment Pressure-High-3* (PI-0934, PI-0935, PI-0936, PI-0937)	S	R	~~M~~ Q	N.A.	N.A.	N.A.	N.A.	1##, 2##, 3##, 4##
3. Containment Isolation								
a. Phase "A" Isolation								
1) Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3, 4
2) Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4

*See Specification 4.3.3.6.

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
4. Steam Line Isolation								
a. Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A	N.A	N.A.	M(1)	M(1)	Q	1, 2, 3
c. Containment Pressure-High-2* (PI-0934, PI-0935, PI-0936)	S	R	~~M~~ Q	N.A.	N.A.	N.A.	N.A.	1##, 2##, 3##
d. Steam Line Pressure-Low*	S	R	~~M~~ Q	N.A.	N.A.	N.A.	N.A.	1##, 2##, 3##
(LOOP1 PI-0514A,B&C PI-0515A PI-0516A) (LOOP2 PI-0524A&B PI-0525A, PI-0526A) (LOOP3 PI-0534A&B PI-0535A PI-0536A) (LOOP4 PI-0544A,B&C PI-0545A PI-0546A)								
e. Steam Line Pressure-Negative Rate-High*	S	R	~~M~~ Q	N.A.	N.A.	N.A.	N.A.	3##
(LOOP1 PI-0514A,B&C PI-0515A PI-0516A) (LOOP2 PI-0524A&B PI-0525A PI-0526A) (LOOP3 PI-0534A&B PI-0535A PI-0536A) (LOOP4 PI-0544A,B&C PI-0545A PI-0546A)								

*See Specification 4.3.3.6

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
5. Turbine Trip and Feedwater Isolation								
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2
b. Low RCS Tavg Coincident with Reactor Trip*								
1. Low RCS T_{avg}	S	R	M	N.A.	N.A.	N.A.	N.A.	1, 2
2. Reactor Trip, P-4	See Functional Unit 9.b. for P-4 Surveillance requirements.							
c. Steam Generator Water Level-High-High** (P-14)	S	R	~~M~~ Q	N.A.	N.A.	N.A.	N.A.	1, 2

(LOOP1 LOOP2 LOOP3 LOOP4

LI-0517 LI-0527 LI-0537 LI-0547
LI-0518 LI-0528 LI-0538 LI-0548
LI-0519 LI-0529 LI-0539 LI-0549
LI-0551 LI-0552 LI-0553 LI-0554)

d. Safety Injection See Functional Unit 1. above for all Safety Injection Surveillance Requirements.

*Feedwater isolation only. Turbine trip occurs on reactor trip.

**See Specification 4.3.3.6

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
6. Auxiliary Feedwater								
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3
b. Steam Generator Water Level-Low-Low*								
(LOOP1 LOOP2 LOOP3 LOOP4								
LI-0517 LI-0527 LI-0537 LI-0547								
LI-0518 LI-0528 LI-0538 LI-0548								
LI-0519 LI-0529 LI-0539 LI-0549								
LI-0551 LI-0552 LI-0553 LI-0554)								
1) Start Motor-Driven Pumps	S	R	~~M~~ Q	N.A.	N.A.	N.A	N.A	~~1, 2, 3~~
2) Start Turbine Driven Pump	S	R	~~M~~ Q	N.A.	N.A.	N.A	N.A	~~1, 2, 3~~
c. Safety Injection Start Motor-Driven Pumps	See Functional Unit 1. above for all Safety Injection Surveillance Requirements.							
d. Loss of or Degraded 4.16 kV ESF Bus Voltage	N.A.	R	~~M~~ Q	N.A.	N.A.	N.A.	N.A	1, 2, 3
e. Trip of All Main Feed-Water Pumps, Start Motor-Driven Pumps	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A	1, 2
f. Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3

*See Specification 4.3.3.6

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
7. Semi-Automatic Switchover to Containment Emergency Sump								
a. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	M(1)	Q	1, 2, 3, 4
b. RWST Level-Low-Low* Coincident With Safety Injection (LI-0990A&B, LI-0991A&B, LI-0992A, LI-0993A)	S	R	M	N.A.	N.A.	N.A.	N.A	1**, 2**, 3**, 4**
8. Loss of Power to 4.16 kV ESF Bus								
a. 4.16 kV ESF Bus Undervoltage-Loss of Voltage	N.A.	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3, 4
b. 4.16 kV ESF Bus Undervoltage-Degraded Voltage	N.A.	R	M	N.A.	N.A.	N.A.	N.A.	1, 2, 3, 4

*See Specification 4.3.3.6

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
9. Engineered Safety Features Actuation System Interlocks								
a. Pressurizer Pressure, P-11 (PI-0455A,B&C, PI-0456 & PI-0456A, PI-0457 & PI-0457A)	N.A.	R	~~M~~ Q	N.A.	N.A.	N.A.	N.A.	1, 2, 3##
b. Reactor Trip, P-4	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	1, 2, 3
10. Control Room Emergency Filtration System Actuation								
a. Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	Either Unit in 1, 2, 3, 4, 5#, 6#
b. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	N.A.	N.A.	Either Unit in 1, 2, 3, 4, 5#, 6#

#During movement of irradiated fuel or movement of loads over irradiated fuel.

TABLE 4.3-2 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CHANNEL CALIBRATION	ANALOG CHANNEL OPERATIONAL TEST	TRIP ACTUATING DEVICE OPERATIONAL TEST	ACTUATION LOGIC TEST	MASTER RELAY TEST	SLAVE RELAY TEST	MODES FOR WHICH SURVEILLANCE IS REQUIRED
10. Control Room Emergency Filtration System Actuation (Continued)								
c. Safety Injection	See Functional Unit 1. above for all Safety Injection Surveillance Requirements.							
d. Intake Radiogas Monitor (RE-12116, RE-12117)	S	R	M	N.A.	N.A.	N.A.	N.A.	Either Unit in 1, 2, 3, 4, 5#, 6#
11. Fuel Handling Building Post Accident Ventilation Actuation (Common System)								
a. Manual Initiation	N.A.	N.A.	N.A.	R	N.A.	N.A.	N.A.	(2)
b. Fuel Handling Building Exhaust Duct Radiation Signal (ARE-2532 A&B ARE-2533 A&B)	S	R	M	N.A.	N.A.	N.A.	N.A.	(2)
c. Automatic Actuation Logic and Actuation Relays	N.A.	N.A.	N.A.	N.A.	M(1)	N.A.	N.A.	(2)

TABLE NOTATION

(1) Each train shall be tested at least every 62 days on a STAGGERED TEST BASIS.
(2) Whenever irradiated fuel is in either storage pool.
During movement of irradiated fuel or movement of loads over irridated fuel.
This function may be bypassed for surveillance testing provided that the applicable Action Statement requirements are met.

TABLE 3.3-4

RADIATION MONITORING INSTRUMENTATION FOR PLANT OPERATIONS

FUNCTIONAL UNIT	CHANNELS TO TRIP/ALARM	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ALARM/TRIP SETPOINT	ACTION
1. Containment					
a. Containment Area (High Range) (RE-0005, RE-0006)	1	See Table 3.3-8	1, 2, 3, 4	100 R/hr	See Table 3.3-8
b. RCS Leakage Detection					
1) Gaseous Activity (RE-2562C)	1	1	1, 2, 3, 4	$\leq$ 2 x background	~~29~~ 30
2) Particulate Activity (RE-2562A)	1	1	1, 2, 3, 4	$\leq$ 2 x background	~~29~~ 30
2. Containment Ventilation Area Low Range (RE-0002, RE-0003) Gaseous Activity (RE-2565C) Particulate Activity (RE-2565A) Iodine Activity (RE-2565B)	1	2[c]	1, 2, 3, 4, 6[a]	See Table 3.3-3	See Table 3.3-2
3. Control Room Air Intake (RE-12116, RE-12117)	1	2	Either Unit in 1, 2, 3, 4 5[b], 6[b]	See Table 3.3-3	See Table 3.3-2

TABLE 3.3-4 (Continued)

TABLE NOTATIONS

a During movement of irradiated fuel or movement of loads over irradiated fuel within containment.

b During movement of irradiated fuel or movement of loads over irradiated fuel.

c RE-2565 is considered OPERABLE if the Particulate (RE-2565A) and Iodine (RE-2565B) Monitors are OPERABLE, or the noble gas monitor (RE-2565C) is OPERABLE.

ACTION STATEMENTS

ACTION ~~29~~ 30 - With the number of OPERABLE Channels less than the Minimum Channels OPERABLE requirement, satisfy the ACTION requirements of Specification 3.4.6.1.

TABLE 3.3-8

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE	ACTION
1. Reactor Coolant Pressure (Wide Range) (Loop 408, 418, 428, & 438)	4	1	~~35~~ 37
2. Reactor Coolant System T_{hot} (Wide Range) (Loop 413A, 423A, 433A & 443A)	1/loop	1/loop	~~32~~ 34
3. Reactor Coolant System T_{cold} (Wide Range) (Loop 413B, 423B, 433B & 443B)	1/loop	1/loop	~~32~~ 34
4. SG Water Level (Wide Range) (Loop 501, 502, 503 & 504)	1/SG	1/SG	~~32~~ 34
5. SG Water Level (Narrow Range) (Loop 517, 518, 519, 527, 528, 529, 537, 538, 539, 547, 548, 549, 551, 552, 553, 554)	4/SG	1/SG	~~35~~ 37
6. Pressurizer Level (Loop 459, 460, 461)	3	1	~~30~~ 31
7. Containment Pressure (Loop 934, 935, 936, 937)	4	1	~~35~~ 37
8. Steamline Pressure (Loop 514, 515, 516, 524, 525, 526, 534, 535, 536, 544, 545 & 546)	3/stm. line	1/stm. line	~~30~~ 31
9. RWST Level (Loop 990, 991, 992 & 993)	4	1	~~35~~ 37
10. Containment Normal Sumps Level (Narrow Range) (Loop 7777 & 7789)	2	1	~~31a~~ 32 |
11. Containment Water Level (Wide Range) (Loop 0764 & 0765)	2	1	~~31a~~ 32 |

TABLE 3.3-8 (Continued)

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	TOTAL NO. OF CHANNELS	MINIMUM CHANNELS OPERABLE	ACTION
12. Condensate Storage Tank Level (Loop 5101, 5111, 5104 & 5116)	2/tank	1/tank	~~31a~~ 32 |
13. Auxiliary Feedwater Flow (Loop 5152, 15152, 5153, 15153, 5151, 15151, 5150 & 15150)	2/feed line	1/feed line	~~31a~~ 32 |
14. Containment Radiation Level (High Range) (Loop 0005 & 0006)	2	1	~~33~~ 35
15. Steamline Radiation Monitor (Loop 13119, 13120, 13121 & 13122)	1/stm. line	1/stm. line	~~33~~ 35
16. Core Exit Thermocouples	4/quad/train	2/quad/train	~~30~~ 31
17. Reactor Coolant System Subcooling	2	1	~~31a~~ 32 |
18. Neutron Flux (Extended Range) (Loop 13135A & 13135B)	2	1	~~31a~~ 32 |
19. RVLIS	2	1	~~34~~ 36
20. Containment Hydrogen Concentration (Loop 12979 & 12980)	2	1	~~31b~~ 33 |
21. Containment Pressure (Extended Range) (Loop 10942 & 10943)	2	1	~~31a~~ 32 |
22. Containment Isolation Valve Position Indication*	1/valve	1/valve	~~36~~ 3c

*Applicable for containment isolation valve position indication designated as post-accident monitoring instrumentation (containment isolation valves which receive containment isolation Phase A or containment ventilation isolation signals).

TABLE 3.3-8 (Continued)

ACTION STATEMENTS

ACTION ~~30~~ 31 - a. With the number of OPERABLE channels one less than the Total Number of Channels requirement, restore the inoperable channel to OPERABLE status within 31 days, or be in at least HOT SHUTDOWN within the next 12 hours.

b. With the number of OPERABLE channels two less than the Total Number of Channels requirement, restore at least one inoperable channel to OPERABLE status within 7 days, or be in at least HOT SHUTDOWN within the next 12 hours.

c. With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, restore at least one inoperable channel to OPERABLE status within 48 hours or be in HOT SHUTDOWN within the next 12 hours.

d. The provisions of Specification 3.0.4 are not applicable.

ACTION ~~31a~~ 32 - a. With the number of OPERABLE channels one less than the Total Number of Channels requirement, restore one inoperable channel to OPERABLE status within 7 days, or be in at least HOT SHUTDOWN within the next 12 hours.

b. With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, restore at least one inoperable channel to OPERABLE status within 48 hours, or be in HOT SHUTDOWN within the next 12 hours.

c. The provisions of Specification 3.0.4 are not applicable.

ACTION ~~31b~~ 33 - a. With the number of OPERABLE channels less than the Total Number of Channels requirement, comply with the provisions of Specification 3.6.4.1.

b. The provisions of Specification 3.0.4 are not applicable.

ACTION ~~32~~ 34 - With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, restore at least one inoperable channel to OPERABLE status within 48 hours, or be in HOT SHUTDOWN within the next 12 hours. The provisions of Specification 3.0.4 are not applicable.

ACTION ~~33~~ 35 - With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, initiate the alternate method of monitoring the parameter within 72 hours and either restore the inoperable channel(s) to OPERABLE status within 7 days or prepare and submit a Special Report to the Commission, pursuant to Specification 6.8.2, within 14 days that provides actions taken, cause of the inoperability, and the plans and schedule for restoring the channels to OPERABLE status. The provisions of Specification 3.0.4 are not applicable.

TABLE 3.3-8 (Continued)

ACTION STATEMENTS

ACTION 36 - With the number of OPERABLE channels less than the required number of channels or the Minimum Channels OPERABLE requirement, restore the inoperable channel(s) to OPERABLE status as per Action 31a.a or 31a.b as applicable if repair is feasible during plant operation. If repair is not feasible, prepare and submit a Special Report to the Commission, pursuant to Specification 6.8.2 within 14 days that provides actions taken, cause of the inoperability, and the plans and schedule for restoring the channels to OPERABLE status. The provisions of Specification 3.0.4 are not applicable.*

ACTION 37 - a. With the number of OPERABLE channels two less than the Total Number of Channels requirement, restore the inoperable channel to OPERABLE status within 31 days, or be in at least HOT SHUTDOWN within the next 12 hours.

b. With the number of OPERABLE channels three less than the Total Number of Channels requirement, restore at least one inoperable channel to OPERABLE status within 7 days, or be in at least HOT SHUTDOWN within the next 12 hours.

c. With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, restore at least one inoperable channel to OPERABLE status with 48 hours or be in HOT SHUTDOWN within the next 12 hours.

d. The provisions of Specification 3.0.4 are not applicable.

ACTION 38 - With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, comply with the provisions of Specification 3.6.3. for an inoperable containment isolation valve.

*Action Statement 36 applies to the first fuel cycle only. Action Statement 32 is applicable thereafter.

3/4.3.1 and 3/4.3.2 REACTOR TRIP SYSTEM and ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

The OPERABILITY of the Reactor Trip System and the Engineered Safety Features Actuation System instrumentation and interlocks ensures: (1) the associated ACTION and/or Reactor trip will be initiated when the parameter monitored by each channel or combination thereof reaches its Setpoint (2) the specified coincidence logic ~~(3)~~ sufficient redundancy is maintained to permit a channel to be out-of-service for testing or maintenance consistent with maintaining an appropriate level of reliability of the Reactor ~~Protection~~ and Engineered Safety Features instrumentation, and ~~(4)~~ sufficient system functional capability is available from diverse parameters.(3)

The OPERABILITY of these systems is required to provide the overall reliability, redundancy, and diversity assumed available in the facility design for the protection and mitigation of accident and transient conditions. The integrated operation of each of these systems is consistent with the assumptions used in the safety analyses. The Surveillance Requirements specified for these systems ensure that the overall system functional capability is maintained comparable to the original design standards. The periodic surveillance tests performed at the minimum frequencies are sufficient to demonstrate this capability. Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with WCAP-10271, "Evaluation of Surveillance Frequencies and Out of Service Times for the Reactor Protection Instrumentation System," and supplements to that report. Surveillance intervals and out of service times were determined based upon maintaining an appropriate level of reliability of the Reactor Protection System and Engineered Safety Features instrumentation. The NRC Safety Evaluation Reports for WCAP-10271 ~~and~~ provided in ~~a~~ letters dated February 21, 1985, from C. O. Thomas (NRC) to J. J. Sheppard (WOG-GP); February 22, 1989 from C.E. Rossi (NRC) to R.A. Newton (WOG); and on April 30, 1990 from C.E. Rossi to G.T. Goering.

The Engineered Safety Features Actuation System Instrumentation Trip Setpoints specified in Table 3.3-3 are the nominal values at which the bistables are set for each functional unit. A Setpoint is considered to be adjusted consistent with the nominal value when the "as measured" Setpoint is within the band allowed for calibration accuracy.

To accommodate the instrument drift assumed to occur between operational tests and the accuracy to which Setpoints can be measured and calibrated, Allowable Values for the Setpoints have been specified in Table 3.3-3. Operation with Setpoints less conservative than the Trip Setpoint but within the Allowable Value is acceptable since an allowance has been made in the safety analysis to accommodate this error. An optional provision has been included for determining the OPERABILITY of a channel when its Trip Setpoint is found to exceed the Allowable Value. The methodology of this option utilizes the "as measured" deviation from the specified calibration point for rack and sensor components in conjunction with a statistical combination of the other uncertainties of the instrumentation to measure the process variable and the uncertainties in calibrating the instrumentation. In Equation 2.2-1, $Z + R + S \leq TA$, the interactive effects of the errors in the rack and the sensor, and the "as measured" values of the errors are considered. Z, as

Enclosure 5

WCAP-13377, Revision 2 (Non-Proprietary)