CHANGED PAGES FOR SALEM UNIT NO. 1

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

~	FUNCTIONAL UNIT	CHANNEL CHECK	CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
13.	Loss of Flow - Two Loops	S	R	N.A.	1
14.	Steam Generator Water Level Low-Low	S	R	M :	1, 2
15.	Steam/Feedwater Flow Mismatch & Low Steam Generator Water Level	S		М	1, 2
16.	Undervoltage - Reactor Coolant Pumps	N.A.	R	· M	1
17.	Underfrequency - Reactor Coolant Pumps	N.A.	R	M	1
18.	Turbine Trip		•	•	
	a. Low Autostop Oil Pressure b. Turbine Stop Valve Closure	N.A.	A.N.	S/U(1) S/U(1)	1, 2 1, 2
19.	Safety Injection Input from SSPS	N.A.	N.A.	M(4)	1, 2
20.	Reactor Coolant Pump Breaker Position Trip	N.A.	N.A.	R	N.A.
21.	Reactor Trip Breaker	N.A.	N.A.	S/U(10), M(11,13), SA(12, 13) & R(14) 1, 2 and *	
22.	Automatic Trip Logic	N.A.	N.A.	· M(5)	1, 2 and *

NOTATION

- With the reactor trip system breakers closed and the control rod drive system capable of rod withdrawal.
- (1) If not performed in previous 7 days.
- (2) Heat balance only, above 15% of RATED THERMAL POWER.
- (3) Compare incore to excore axial offset above 15% of RATED THERMAL POWER. Recalibrate if absolute difference > 3 percent.
- (4) Manual SSPS functional input check every 18 months.
- (5) Each train or logic channel shall be tested at least every 62 days on a STAGGERED TEST BASIS.
- (6) Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (7) Below P-6 (Block of Source Range Reactor Trip) setpoint.
- (8) Logic only, if not performed in previous 92 days.
- (9) If not performed in the previous 24 hours, conduct a functional test of the Manual Reactor Trip Switches to verify the Manual Reactor Trip Switch and the independent operation of the U.V. and shunt trip wiring.
- (10) If not performed in the previous 24 hours, conduct a functional test of:
 - Reactor Trip Breaker independent operation of U.V. and Shunt Trip (via SSPS)
 - Reactor Trip Breaker Shunt Trip (via manual pushbutton controls)
- (11) Perform a functional test of:
 - Reactor Trip Breaker independent operation of U.V. Trip and Shunt Trip (via SSPS) and conduct response time testing of U.V. and Shunt Trip/Breakers (event recorders)
 - Reactor Trip Breaker Shunt Trip (via manual pushbutton controls)
- (12) Perform periodic maintenance on Reactor Trip Breakers and Reactor Trip Bypass Breakers semiannually as follows:
 - a. response time testing, (3 times) (visicorder) trend data
 - b. trip bar lift force measurements
 - c. U.V. output force measurement
 - d. dropout voltage check
 - e. servicing/lubrication/adjustments (See Table 3.3-1 Notation ###)
 - f. repeat testing steps (a-d) following any necessary actions at step (e)

- (13) Verify operation of Bypass Breakers Shunt Trip function from local pushbutton while breaker is in the test position prior to placing breaker in service.
- (14) Perform a functional test of the Bypass Breakers U.V. Attachment via the SSPS.

CHANGED PAGES FOR UNIT NO. 2

TABLE 4.3-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION SURVEILLANCE REQUIREMENTS

FUNCTIONAL UNIT	CHANNEL CHECK	CALIBRATION	CHANNEL FUNCTIONAL TEST	MODES IN WHICH SURVEILLANCE REQUIRED
13. Loss of Flow - Two Loops	S	R	N.A.	1
14. Steam Generator Water Level Low-Low	S	R	M	1, 2
15. Steam/Feedwater Flow Mismatch & Low Steam Generator Water Level	S	R	M	1, 2
16. Undervoltage - Reactor Coolant Pumps	N.A.	, R	M	1
17. Underfrequency - Reactor Coolant Pumps	N.A.	R	M	1
18. Turbine Trip		· ·		
a. Low Autostop Oil Pressureb. Turbine Stop Valve Closure	N.A. N.A.	N.A. N.A.	S/U(1) S/U(1)	N.A. N.A.
19. Safety Injection Input from SSPS	N.A.	. N.A.	M(4)	1, 2
20. Reactor Coolant Pump Breaker Position Trip	N.A.	R.	S/U(8)	1
21. Reactor Trip Breaker	N.A.	N.A.	S/U(10), M(1 SA(12, 13) & R(14)	1,13), 1, 2 and *
22. Automatic Trip Logic	N.A.	N.A.	M(5)	1, 2 and *

NOTATION

- With the reactor trip system breakers closed and the control rod drive system capable of rod withdrawal.
- (1) If not performed in previous 7 days.
- (2) Heat balance only, above 15% of RATED THERMAL POWER.
- (3) Compare incore to excore axial offset above 15% of RATED THERMAL POWER.

 Recalibrate if absolute difference > 3 percent.
- (4) Manual SSPS functional input check every 18 months.
- (5) Each train or logic channel shall be tested at least every 62 days on a STAGGERED TEST BASIS.
- (6) Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (7) Below P-6 (Block of Source Range Reactor Trip) setpoint.
- (8) Logic only, if not performed in previous 92 days.
- (9) If not performed in the previous 24 hours, conduct a functional test of the Manual Reactor Trip Switches to verify the Manual Reactor Trip Switch and the independent operation of the U.V. and shunt trip wiring.
- (10) If not performed in the previous 24 hours, conduct a functional test of:
 - Reactor Trip Breaker independent operation of U.V. and Shunt Trip (via SSPS)
 - Reactor Trip Breaker Shunt Trip (via manual pushbutton controls)
- (11) Perform a functional test of:
 - Reactor Trip Breaker independent operation of U.V. Trip and Shunt Trip (via SSPS) and conduct response time testing of U.V. and Shunt Trip/Breakers (event recorders)
 - Reactor Trip Breaker Shunt Trip (via manual pushbutton controls)
- (12) Perform periodic maintenance on Reactor Trip Breakers and Reactor Trip Bypass Breakers semiannually as follows:
 - a. response time testing, (3 times) (visicorder) trend data
 - b. trip bar lift force measurements
 - c. U.V. output force measurement
 - d. dropout voltage check
 - e.. servicing/lubrication/adjustments (See Table 3.3-1 Notation ###)
 - f. repeat testing steps (a-d) following any necessary actions at step (e)

- (13) Verify operation of Bypass Breakers Shunt Trip function from local pushbutton while breaker is in the test position prior to placing breaker in service.
- (14) Perform a functional test of the Bypass Breakers U.V. Attachment via the SSPS.