TABLE 3.2.1

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

Minimum Number of Operable Instrument Channels per Trip System	Trip Function	Trip Level Setting	Required Action When Minimum Conditions for Operation are Not Satisfied
	Core Spray - A & B (Note 1)		
2	High Drywell Pressure	≤2.5 psig	Note 2
2	Low-Low Reactor Vessel Water Level	≥82.5" above top of enriched fuel	Note 2
1	Low Reactor Pressure (PT-2-3-56C/D(M))	300 ≤ P ≤ 350 psig	Note 2
2	Low Reactor Pressure (PT-2-3-56A/B(M) & 52C/D(M))	300 ≤ P ≤ 350 psig	Note 2
1	~~Time Delay~~ (Pump Start) (14A-K16A & B)	≤10 seconds (8 ≤ t ≤ 10)	Note 2
2	~~Pump (P-66-1A/B)~~ Discharge Pressure	≥100 psig	Note 5
1	Auxiliary Power Monitor	--	Note 5
1	Pump Bus Power Monitor	--	Note 5
1	Trip System Logic	--	Note 5

TABLE 3.2.1
(Cont'd)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

Low Pressure Coolant Injection System A & B (Note 1)

Minimum Number of Operable Instrument Channels per Trip System	Trip Function	Trip Level Setting	Required Action When Minimum Conditions for Operation are Not Satisfied
1	Low Reactor Pressure (PT-2-3-56C/D(M))	300 ≤ p ≤ 350 psig	Note 2
2	High Drywell Pressure (PT-10-101A-D(M))	≤2.5 psig	Note 2
2	Low-Low Reactor Vessel Water Level	≥82.5" above top of enriched fuel	Note 2
1	Time Delay (10A-K51A & B)	0 seconds	Note 5
1	Reactor Vessel Shroud Level	≥2/3 core height	Note 5
1	Time Delay (10A-K72A & B)	≤60 seconds	Note 5
1	Time Delay (10A-K50A & B) (Pump Start)	~~≤5~~ seconds (3 ≤ t ≤ 5)	Note 5
1	Low Reactor Pressure (PS-2-128A & B)	100 ≤ p ≤ 150 psig	Note 2
2 per pump	RHR Pump A & C Discharge Pressure	≥100 psig	Note 5
2	High Drywell Pressure (PT-10-101A-D(S1))	≤2.5 psig	Note 2

BASES: 3.2 (Cont'd)

The Degraded Grid Protective System has been installed to assure that safety-related electrical equipment will not be subjected to sustained degraded voltage. This system incorporates voltage relays on 4160 Volt Emergency Buses 3 and 4 which are set to actuate at the minimum voltage required to prevent damage of safety-related equipment.

If Degraded Grid conditions exist for 10 seconds, either relay will actuate an alarm to alert operators of this condition. Based upon an assessment of these conditions the operator may choose to manually disconnect the off-site power. In addition, if an ESF signal is initiated in conjunction with low voltage below the relay setpoint for 10 seconds, the off-site power will be automatically disconnected.

The Reactor Core Isolation Cooling (RCIC) System provides makeup water to the reactor vessel during shutdown and isolation to supplement or replace the normal makeup sources without the use of the Emergency Core Cooling Systems. The RCIC System is initiated automatically upon receipt of a reactor vessel low-low water level signal. Reactor vessel high water level signal results in shutdown of the RCIC System. However, the system will restart on a subsequent reactor vessel low-low water level signal. The RCIC System is normally lined up to take suction from the condensate storage tank. Suction will automatically switch over from the condensate storage tank to the suppression pool on low condensate storage tank level.

Upon receipt of a LOCA initiation signal, if normal AC power is available, all RHR pumps and both Core Spray pumps start simultaneously with no intentional time delay. If normal AC power is not available, RHR pumps A and D start immediately on restoration of power, RHR pumps B and C start within 3 to 5 seconds of restoration of power and both Core Spray pumps start within 8 to 10 seconds of restoration of power. The purpose of these time delays is to stagger the start of the RHR and Core Spray pumps on the associated Division 1 and Division 2 Buses, thus limiting the starting transients on the 4.16 kV emergency buses. The time delay functions are only necessary when power is being supplied from the standby power sources (EDGs). The time delays remain in the pump start logic at all times as the time delay relay contact is in parallel with the Auxiliary Power Monitor relay contact. Either contact closure will initiate pump start. Thus, the time delays do not affect low pressure ECCS pump operation with normal AC power available. With normal AC power not available, the pump start relays which would have started the B and C RHR pumps and both Core Spray pumps are blocked by the Auxiliary Power Monitor contacts and the pump start time delay relays become the controlling devices.

Add

ATTACHMENT 4

Revised New Technical Specification Pages

TABLE 3.2.1

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

Core Spray - A & B (Note 1)			
Minimum Number of Operable Instrument Channels per Trip System	Trip Function	Trip Level Setting	Required Action When Minimum Conditions for Operation are Not Satisfied
2	High Drywell Pressure	$\leq$2.5 psig	Note 2
2	Low-Low Reactor Vessel Water Level	$\geq$82.5" above top of enriched fuel	Note 2
1	Low Reactor Pressure (PT-2-3-56C/D(M))	300 $\leq$ P $\leq$ 350 psig	Note 2
2	Low Reactor Pressure (PT-2-3-56A/B(M) & 52C/D(M))	300 $\leq$ P $\leq$ 350 psig	Note 2
1	Pump Start Time Delay (14A-K16A & B)	8 $\leq$ t $\leq$ 10 seconds	Note 2
2	Pump (P-46-1A/B) Discharge Pressure	$\geq$100 psig	Note 5
1	Auxiliary Power Monitor	--	Note 5
1	Pump Bus Power Monitor	--	Note 5
1	Trip System Logic	--	Note 5

TABLE 3.2.1
(Cont'd)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

Minimum Number of Operable Instrument Channels per Trip System	Trip Function	Trip Level Setting	Required Action When Minimum Conditions for Operation are Not Satisfied
	Low Pressure Coolant Injection System A & B (Note 1)		
1	Low Reactor Pressure (PT-2-3-56C/D(M))	300 ≤ p ≤ 350 psig	Note 2
2	High Drywell Pressure (PT-10-101A-D(M))	≤2.5 psig	Note 2
2	Low-Low Reactor Vessel Water Level	≥82.5" above top of enriched fuel	Note 2
1	Reactor Vessel Shroud Level	≥2/3 core height	Note 5
1	Time Delay (10A-K72A & B)	≤60 seconds	Note 5
1	Pump Start Time Delay (10A-K50A & B)	3 ≤ t ≤ 5 seconds	Note 5
1	Low Reactor Pressure (PS-2-128A & B)	100 ≤ p ≤ 150 psig	Note 2
2 per pump	RHR Pump A & C Discharge Pressure	≥100 psig	Note 5
2	High Drywell Pressure (PT-10-101A-D(S1))	≤2.5 psig	Note 2

BASES: 3.2 (Cont'd)

The Degraded Grid Protective System has been installed to assure that safety-related electrical equipment will not be subjected to sustained degraded voltage. This system incorporates voltage relays on 4160 Volt Emergency Buses 3 and 4 which are set to actuate at the minimum voltage required to prevent damage of safety-related equipment.

If Degraded Grid conditions exist for 10 seconds, either relay will actuate an alarm to alert operators of this condition. Based upon an assessment of these conditions the operator may choose to manually disconnect the off-site power. In addition, if an ESF signal is initiated in conjunction with low voltage below the relay setpoint for 10 seconds, the off-site power will be automatically disconnected.

The Reactor Core Isolation Cooling (RCIC) System provides makeup water to the reactor vessel during shutdown and isolation to supplement or replace the normal makeup sources without the use of the Emergency Core Cooling Systems. The RCIC System is initiated automatically upon receipt of a reactor vessel low-low water level signal. Reactor vessel high water level signal results in shutdown of the RCIC System. However, the system will restart on a subsequent reactor vessel low-low water level signal. The RCIC System is normally lined up to take suction from the condensate storage tank. Suction will automatically switch over from the condensate storage tank to the suppression pool on low condensate storage tank level.

Upon receipt of a LOCA initiation signal, if normal AC power is available, all RHR pumps and both Core Spray pumps start simultaneously with no intentional time delay. If normal AC power is not available, RHR pumps A and D start immediately on restoration of power, RHR pumps B and C start within 3 to 5 seconds of restoration of power and both Core Spray pumps start within 8 to 10 seconds of restoration of power. The purpose of these time delays is to stagger the start of the RHR and Core Spray pumps on the associated Division 1 and Division 2 Buses, thus limiting the starting transients on the 4.16 kV emergency buses. The time delay functions are only necessary when power is being supplied from the standby power sources (EDGs). The time delays remain in the pump start logic at all times as the time delay relay contact is in parallel with the Auxiliary Power Monitor relay contact. Either contact closure will initiate pump start. Thus, the time delays do not affect low pressure ECCS pump operation with normal AC power available. With normal AC power not available, the pump start relays which would have started the B and C RHR pumps and both Core Spray pumps are blocked by the Auxiliary Power Monitor contacts and the pump start time delay relays become the controlling devices.