

TABLE 4.1-1 (Continued)

<u>CHANNEL DESCRIPTION</u>	<u>CHECK</u>	<u>TEST</u>	<u>CALIBRATE</u>	<u>REMARKS</u>
38. Steam Generator Water Level	W	NA	R	
39. Turbine Overspeed Trip	NA	R*	NA	
40. Sodium Thiosulfate Tank Level Indicator	NA	NA	R	
41. Sodium Hydroxide Tank Level Indicator	NA	NA	R	
42. Diesel Generator Protective Relaying	NA	NA	R	
43. 4 KV ES Bus Undervoltage Relays (Diesel Start)				
a. Degraded Grid	NA	M(1)	R	(1) Relay operation will be checked by local test pushbuttons
b. Loss of Voltage	NA	M(1)	R	(1) Relay operation will be checked by local test pushbuttons
44. Reactor Coolant Pressure DH Valve Interlock Bistable	S(1)	M	R	(1) When reactor coolant system is pressurized above 300 psig or Taves is greater than 200°F.
S - Each Shift	T/W - Twice per week		R - Each Refueling Period	
D - Daily	B/M - Every 2 months		NA - Not Applicable	
W - Weekly	Q - Quarterly		B/W - Every two weeks	
M - Monthly	P - Prior to each startup if not done previous week			

* Test to be performed prior to exceeding 20% power during Cycle 5 startup only.

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4.5 EMERGENCY LOADING SEQUENCE AND POWER TRANSFER, EMERGENCY CORE COOLING SYSTEM AND REACTOR BUILDING COOLING SYSTEM PERIODIC TESTING

4.5.1 Emergency Loading Sequence

Applicability:

Applies to periodic testing requirements for safety actuation systems.

Objective:

To verify that the emergency loading sequence and automatic power transfer is operable.

Specifications:

4.5.1.1* Sequence and Power Transfer Test

- a. During each refueling interval, a test shall be conducted to demonstrate that the emergency loading sequence and power transfer is operable.
- b. The test will be considered satisfactory if the following pumps and fans have been successfully started and the following valves have completed their travel on preferred power and transferred to the emergency power as evidenced by the control board component operating lights, and either the station computer or pressure/flow indication.

- M. U. Pump
- D. H. Pump and D. H. Injection Valves and D. H. Supply Valves
- R. B. Cooling Pump
- R. B. Ventilators
- D. H. Closed Cycle Cooling Pump
- N. S. Closed Cycle Cooling Pump
- D. H. River Cooling Pump
- N. S. River Cooling Pump
- D. H. and N. S. Pump Area Cooling Fan
- Screen House Area Cooling Fan
- Spray Pump. (Initiated in coincidence with a 2 out of 3 R. B. 30 psig Pressure Test Signal.)

- c. Following successful transfer to the emergency diesel, the diesel generator breaker will be opened to simulate trip of the generator then reclosed to verify block load on the reclosure.

* This test shall be performed prior to Cycle 5 criticality.

4.5.1.2 Sequence Test

- a. At intervals not to exceed 3 months, a test shall be conducted to demonstrate that the emergency loading sequence is operable, this test shall be performed on either preferred power or emergency power.
- b. The test will be considered satisfactory if the pumps and fans listed in 4.5.1.1b have been successfully started and the valves listed in 4.5.1.1b have completed their travel as evidenced by the control board component operating lights, and either the station computer or pressure/flow indication.

Bases

The Emergency loading sequence and automatic power transfer controls the operation

of the pumps associated with the emergency core cooling system and Reactor Building cooling system.

REFERENCES

- (1) FSAR Section 7
- (2) FSAR Section 1.4
- (3) Specification 4.6.1b

4.6 EMERGENCY POWER SYSTEM PERIODIC TESTS

Applicability:

Applies to periodic testing and surveillance requirement of the emergency power system.

Objective:

To verify that the emergency power system will respond promptly and properly when required.

Specification:

The following tests and surveillance shall be performed as stated:

4.6.1 Diesel Generators

- a. Manually-initiate start of the diesel generator, followed by manual synchronization with other power sources and assumption of load by the diesel generator up to the name-plate rating (3000 kw). This test will be conducted every month on each diesel generator. Normal plant operation will not be affected.
- b.* Automatically start and loading the emergency diesel generator in accordance with specification 4.5.1.1.b/c including the following. This test will be conducted every refueling interval on each diesel generator.
 - (1) Verify that the diesel generator starts from ambient condition upon receipt of the ES signal and is ready to load in ≤ 10 seconds.
 - (2) Verify that the diesel block loads upon simulated loss of offsite power in ≤ 30 seconds.
 - (3) The diesel operates with the permanently connected and auto connected load for ≥ 5 minutes.
 - (4) The diesel engine does not trip when the generator breaker is opened while carrying emergency loads.
 - (5) The diesel generator block loads and operates for ≥ 5 minutes upon reclosure of the diesel generator breaker.
- c. Each diesel generator shall be given an inspection at least annually in accordance with the manufacturer's recommendations for this class of stand-by service.

* This testing shall be performed prior to Cycle 5 criticality.

4.6.2 Station Batteries

- a. The voltage, specific gravity, and liquid level of each cell will be measured and recorded monthly.
- b. The voltage and specific gravity of a pilot cell will be measured and recorded weekly.
- c. Each time data are recorded, new data shall be compared with old to detect signs of abuse or deterioration.