Turbine Overspeed Protection

Surveillance on the turbine overspeed protection system varies depending on the system. The Electro-Hydraulic system is tested once per refueling cycle. The mechanical trip system has a calibration check performed once per refueling cycle and certain portions of it are tested on a monthly cycle. The Redundant Overspeed Trip system is calibrated once per refueling cycle and tested monthly.

The turbine governor and stop valves are to be tested at a frequency consistent with the methodology presented in WCAP-11525, "Probabilistic Evaluation of Reduction in Turbine Valve Test Frequency," and in accordance with the established NRC acceptance criteria for the probability of a missile ejection incident of 1.0×10^{-5} per year. In no case shall the turbine valve test interval exceed one year.

TABLE 4.1-3

MINIMUM FREQUENCIES FOR EQUIPMENT TESTS
(Page 1 of 2)

Equipment Tests***	Test	Frequency	Maximum Time Between Test (Days)
1. Control Rods	Rod drop times of all full length rods	Each refueling outage	N.A.
	Partial movement of all rods	Every 2 weeks	17
1a. Reactor Trip Breakers	Independent Test(1) Shunt & Undervoltage Trip Attachments	Monthly	37
1b. Reactor Coolant Pump Breakers-Open-Reactor Trip	Operability	Each refueling outage	N.A.
1c. Manual Reactor Trip	Open Trip Reactor(2) Trip & Bypass Bkr	Each refueling outage	N.A.
2. Deleted			
3. Deleted			
4. Containment Isolation Trip	Operability	Each refueling outage	N.A.
5. Refueling System Interlocks	Operability	Prior to each refueling outage	N.A.
6. Deleted			
7. Fire Protection Pump and Power Supply	*Operability	Monthly	37
8. RCS Leak Detection	Operability	Weekly	8
9. Diesel Fuel Supply	*Fuel Inventory	Weekly	8
10. Turbine Stop and Governor Valves	Operability	Annually	365
11. Fuel Assemblies	Visual Inspection	Each refueling outage	N.A.
12. Guard Pipes	Visual Inspection	Each refueling outage	N.A.

TABLE TS 4.1-3

MINIMUM FREQUENCIES FOR EQUIPMENT TESTS
(Page 2 of 2)

Equipment Tests***	Test	Frequency	Maximum Time Between Test (Days)
13. Pressurizer PORV's	Operability	Each Refueling Cycle	N.A.
14. Pressurizer PORV Block Valves	Operability	Quarterly*****	N.A.
15. Pressurizer Heaters	Operability******	Each Refueling Cycle	N.A.
16. Containment Purge and Vent Isolation Valves	Operability****	Each Refueling Cycle	N.A.

NOTES

* See Specification 4.1.d

*** Following maintenance on the above equipment that could affect the operation of the equipment tests should be performed to verify operability.

**** This test shall demonstrate that the valve(s) close in less than or equal to 5 seconds.

***** Not required when valve is administratively closed.

****** Test will verify operability of heaters and availability of an emergency power supply.

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(1) Verify Operability of the Bypass Breaker Undervoltage Trip Attachment Prior to Placing Breaker Into Service.

(2) Using the control room pushbuttons, independently test the Reactor Trip Breakers shunt trip and undervoltage trip attachments. The test shall also verify the undervoltage trip attachment on the Reactor Trip Bypass Breakers.

Turbine Overspeed Protection

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The turbine governor and stop valves are to be tested at a frequency consistent with the methodology presented in WCAP-11525, "Probabilistic Evaluation of Reduction in Turbine Valve Test Frequency," and in accordance with the established NRC acceptance criteria for the probability of a missile ejection incident of 1.0×10^{-5} per year. In no case shall the turbine valve test interval exceed one year.

TABLE 4.1-3

MINIMUM FREQUENCIES FOR EQUIPMENT TESTS
(Page 1 of 2)

Equipment Tests***	Test	Frequency	Maximum Time Between Test (Days)
1. Control Rods	Rod drop times of all full length rods	Each refueling outage	N.A.
	Partial movement of all rods	Every 2 weeks	17
1a. Reactor Trip Breakers	Independent Test(1) Shunt & Undervoltage Trip Attachments	Monthly	37 |
1b. Reactor Coolant Pump Breakers-Open-Reactor Trip	Operability	Each refueling outage	N.A.
1c. Manual Reactor Trip	Open Trip Reactor(2) Trip & Bypass Bkr	Each refueling outage	N.A. |
2. Deleted			
3. Deleted			
4. Containment Isolation Trip	Operability	Each refueling outage	N.A.
5. Refueling System Interlocks	Operability	Prior to each refueling outage	N.A.
6. Oeleted			
7. Fire Protection Pump and Power Supply	*Operability	Monthly	37
8. RCS Leak Detection	Operability	Weekly	8
9. Diesel Fuel Supply	*Fuel Inventory	Weekly	8
10. Turbine Stop and Governor Valves	Operability	Annually	365 |
11. Fuel Assemblies	Visual Inspection	Each refueling outage	N.A.
12. Guard Pipes	Visual Inspection	Each refueling outage	N.A.

TABLE TS 4.1-3

MINIMUM FREQUENCIES FOR EQUIPMENT TESTS
(Page 2 of 2)

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NOTES

* See Specification 4.1.d

*** Following maintenance on the above equipment that could affect the operation of the equipment tests should be performed to verify operability.

**** This test shall demonstrate that the valve(s) close in less than or equal to 5 seconds.

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(1) Verify Operability of the Bypass Breaker Undervoltage Trip Attachment Prior to Placing Breaker Into Service.

(2) Using the control room pushbuttons, independently test the Reactor Trip Breakers shunt trip and undervoltage trip attachments. The test shall also verify the undervoltage trip attachment on the Reactor Trip Bypass Breakers.