

3.1.1.5 PRESSURIZER ELECTROMATIC RELIEF VALVES AND ASSOCIATED BLOCK VALVE

- A. Whenever the reactor coolant system pressure is above the low reactor coolant system pressure trip setpoint specified in Table 2.3-1, either
 - 1) The pressurizer electromatic relief valve (ERV) should be operational with a setpoint of ≥ 2450 psig and an allowable value of ≥ 2425 psig, or
 - 2) The associated block valve should be closed with the power removed from the block valve.
- B. The ERV block valve should be operational or closed with the power removed from the block valve when the reactor coolant system pressure is above the low reactor coolant system pressure trip setpoint specified in Table 2.3-1.
- C. If the ERV is not operational for more than a 24 hour period, a special report on the status of the ERV shall be submitted in the same manner as those events in Specification 6.12.3.1.

BASES

A reactor coolant pump or decay heat removal pump is required to be in operation before the boron concentration is reduced by dilution with makeup water. Either pump will provide mixing which will prevent sudden positive reactivity changes caused by dilute coolant reaching the reactor. One decay heat removal pump will circulate the equivalent of the reactor coolant system volume in one half hour or less. (1)

The decay heat removal system suction piping is designed for 300°F thus, the system can remove decay heat when the reactor coolant system is below this temperature. (2,3)

One pressurizer code safety valve is capable of preventing overpressurization when the reactor is not critical since its relieving capacity is greater than that required by the sum of the available heat sources which are pump energy, pressurizer heaters, and reactor decay heat. (4) Both pressurizer code safety valves are required to be in service prior to criticality to conform to the system design relief capabilities. The code safety valves prevent overpressure for a rod withdrawal accident. (5) The pressurizer code safety valve

REFERENCES:

- (1) FSAR, Tables 9-10 and 4-3 through 4-7
- (2) FSAR, Section 4.2.5.1 and 9.5.2.3
- (3) FSAR, Section 4.2.5.4
- (4) FSAR, Section 4.3.10.4 and 4.2.4
- (5) FSAR, Section 4.3.7

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lift set point shall be set at 2500 psig \pm 1 percent allowance for error and each valve shall be capable of relieving 300,000 lb/h of saturated steam at a pressure not greater than 3 percent about the set pressure.

The internal vent valves are provided to relieve the pressure generated by steaming in the core following a LOCA so that the core remains sufficiently covered. Inspection and manual actuation of the internal vent valves (1) ensure operability, (2) ensure that the valves are not open during normal operation, and (3) demonstrate that the valves begin to open and are fully open at the forces equivalent to the differential pressures assumed in the safety analysis.

The electromechanical relief valve (ERV) is provided for LTOP relief and to prevent unnecessary challenges to the code safety valves. However, failure of the ERV in the open position can be a major contributor to loss of inventory in the primary coolant.

TABLE 4.1-2 (Continued)

MINIMUM EQUIPMENT TEST FREQUENCY

<u>ITEM</u>	<u>TEST</u>	<u>FREQUENCY</u>
17. Pressurizer Electromatic Relief Valve (ERV)	Demonstrate operational by: Instrument Channel Calibration (Setpoint)	Each Refueling Shutdown
18. Pressurizer Electromatic Relief Valve Block Valve	Demonstrate operational by: operating through one complete cycle of full travel	Each Refueling Shutdown
19. Emergency Power for ERV and Associated Block Valve	Demonstrate operational by transferring motive and control power from normal to emergency power supply and operating valves through a complete cycle of full travel.	Each Refueling Shutdown