ATTACHMENT 4

REFERENCE: ITEM 6

8002150424

3.0 LIMITING CONDITIONS FOR OPERATION

3.1 REACTOR COOLANT SYSTEM

Applicability

Applies to the operating status of the reactor coolant system.

Objective

To specify those limiting conditions for operation of the reactor coolant system which must be met to ensure safe reactor operations.

3.1.1 Operational Components

Specification

3.1.1.1 Reactor Coolant Pumps

A. Pump combinations permissible for given power levels shall be as shown in Table 2.3-1.

B. The boron concentration in the reactor coolant system shall not be reduced unless at least one reactor coolant pump or one decay heat removal pump is circulating reactor coolant.

3.1.1.2 Steam Generator

One steam generator shall be operable whenever the reactor coolant average temperature is above 280F.

3.1.1.3 Pressurizer Safety Valves

A. The reactor shall not remain critical unless both pressurizer code safety valves are operable.

B. When the reactor is subcritical, at least one pressurizer code safety valve shall be operable, if all reactor coolant system openings are closed, except for hydrostatic tests in accordance with ASME Boiler and Pressure Vessel Code, Section III.

3.1.1.4 Reactor Internals Vent Valves 21

The structural integrity and operability of the reactor internals vent valves shall be maintained at level consistent with the acceptance criteria in Specification 4.1.

3.1.1.5 Pressurizer Electromatic Relief Valve

A. The pressurizer electromatic relief valve (ERV) should be operational and unisolated when the reactor coolant system pressure is above the low reactor coolant system pressure trip setpoint specified in Table 2.3-1.

B. If the requirements of Specification 3.1.1.5.A are not met 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.

Amendment

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 300F 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 lift set point shall be set at 2500 psig ± 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 above the set pressure.

The internals 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 internals 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. 28

The electromatic relief valve (ERV) is provided as overpressure protection for the reactor coolant system, but no credit is taken for its operation in the safety analysis. However, failure of the ERV in the open position can be a major contributor to loss of inventory in the primary coolant.

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.