## REACTOR COOLANT SYSTEM

## BASES

## LOW TEMPERATURE OVERPRESSURE PROTECTION (Continued)

overshoot beyond the PORV Setpoint which can occur as a result of time delays in signal processing and valve opening, instrument uncertainties, and single failure. To ensure that mass and heat input transients more severe than those assumed cannot occur, Technical Specifications require lockout of all high head safety injection pumps while in MODE 5 and MODE 6 with the reactor vessel head on. All but one high head safety injection pump are required to be locked out in MODE 4. Technical Specifications also require lockout of the positive displacement pump and all but one charging pump while in MODES 4, 5, and 6 with the reactor vessel head installed and disallow start of an RCP if secondary temperature is more than 50°F above primary temperature.

Administrative controls and two RHR relief valves will be used to provide cold overpressure protection (COMS) during the ASME stroke testing of two administratively declared inoperable PORVs. During the performance of the PORV function test, two RHR trains will be OPERABLE and in operation with the auto closure interlock bypassed (or deleted) to provide COMS.

With one PORV inoperable, COMS will be provided during the ASME test by the OPERABLE PORV and one RHR relief valve associated with an OPERABLE and operating RHR train which has the auto closure interlock bypassed (or deleted). Each RHR relief valve provides sufficient capacity to relieve the flow resulting from the maximum charging flow with concurrent loss of letdown. The RHR pump design developed head, corresponding to the design flowrate of 3400 gpm, is 205 ft and the actual pump developed pressure is 115 psig. This results in actuation of the RHR relief valves at a RCS pressure of approximately 485 psig (600 psig - 115 psig).

Therefore two OPERABLE and operating RHR trains or one OPERABLE PORV and one OPERABLE and operating RHR train will provide adequate and redundant overpressure protection. Use of the RHR relief valves will maintain the RCS pressure below the low temperature endpoint of the Technical Specification B limit curve (550 psig, Ref. Technical Specification Fig. 3.4-2).

With regard to the MODE 6 applicability of this Technical Specification, the statement "with the head on the reactor vessel" means any time the head is installed with or without tensioning the RPV studs.

The Maximum Allowed PORV Setpoint for the COMS will be updated based on the results of examinations of reactor vessel material irradiation surveillance specimens performed as required by 10 CFR Part 50, Appendix H.

## 3/4.4.10 STRUCTURAL INTEGRITY

The inservice inspection and testing programs for ASME Code Class 1, 2, and 3 components ensure that the structural integrity and operational readiness of these components will be maintained at an acceptable level

SOUTH TEXAS - UNITS 1 & 2

B 3/4 4-15

Unit 1 - Amendment No. 4,36, 55 Unit 2 - Amendment No. 27,44

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"Analysis conservatively demonstrates that the RHR relief valves limit RCS pressure to approximately 590 psig."

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"... limits of ASME Section III, Appendix G."