ATTACHMENT

Consumers Power Company
Palisades Plant
Docket 50-255

PROPOSED TECHNICAL SPECIFICATION PAGE CHANGES

December 19, 1985

4 Pages

IC1285-0354-NL04

3.3 EMERGENCY CORE COOLING SYSTEM

Applicability

Applies to the operating status of the emergency core cooling system.

Objective

To assure operability of equipment required to remove decay heat from the core in either emergency or normal shutdown situations.

Specifications

Safety Injection and Shutdown Cooling Systems

3.3.1 The reactor shall not be made critical, except for low-temperature physics tests, unless all of the following conditions are met:

a. The SIRW tank contains not less than 250,000 gallons of water with a boron concentration of at least 1720 ppm but not more than 2000 ppm at a temperature not less than 40°F.

b. All four Safety Injection tanks are operable and pressurized to at least 200 psig with a tank liquid level of at least 186 inches (55.5%) and a maximum level of 198 inches (59%) with a boron concentration of at least 1720 ppm but not more than 2000 ppm.

c. One low-pressure Safety Injection pump is operable on each bus.

d. One high-pressure Safety Injection pump is operable on each bus.

e. Both shutdown heat exchangers and both component cooling heat exchangers are operable.

f. Piping and valves shall be operable to provide two flow paths from the SIRW tank to the primary cooling system.

g. All valves, piping and interlocks associated with the above components and required to function during accident conditions are operable.

h. The Low-Pressure Safety Injection Flow Control Valve CV-3006 shall be opened and disabled (by isolating the air supply) to prevent spurious closure.

i. The Safety Injection bottle motor-operated isolation valves shall be opened with the electric power supply to the valve motor disconnected.

j. The Safety Injection miniflow valves CV-3027 and 3056 shall be opened with HS-3027 and 3056 positions to maintain them open.

3.3 EMERGENCY CORE COOLING SYSTEM (Contd)

g. A maximum of one high-pressure safety injection pump shall be OPERABLE whenever the temperature of one or more of the PCS cold legs is ≤ 250°F.

3.3.3 Prior to returning to the Power Operation Condition after every time the plant has been placed in the Refueling Shutdown Condition, or the Cold Shutdown Condition for more than 72 hours and testing of Specification 4.3.h has not been accomplished in the previous 9 months, or prior to returning the check valves in Table 4.3.1 to service after maintenance, repair or replacement, the following conditions shall be met:

a. All pressure isolation valves listed in Table 4.3.1 shall be functional as a pressure isolation device, except as specified in b. Valve leakage shall not exceed the amounts indicated.

b. In the event that integrity of any pressure isolation valve specified in Table 4.3.1 cannot be demonstrated, at least two valves in each high pressure line having a non-functional valve must be in and remain in, the mode corresponding to the isolated condition.(1)

c. If Specification a. and b. cannot be met, an orderly shutdown shall be initiated and the reactor shall be in hot shutdown condition within 12 hours, and cold shutdown within the next 24 hours.

---

[1] Motor-operated valves shall be placed in the closed position and power supplies deenergized.

that 25% of their combined discharge rate is lost from the primary coolant system out the break. The transient hot spot fuel clad temperatures for the break sizes considered are shown on FSAR Figures 14.17.9 to 14.17.13. These demonstrate that the maximum fuel clad temperatures that could occur over the break size spectrum are well below the melting temperature of zirconium (3300°F).

Malfunction of the Low Pressure Safety Injection Flow control valve could defeat the Low Pressure Injection feature of the ECCS; therefore, it is disabled in the 'open' mode (by isolating the air supply) during plant operation. This action assures that it will not block flow during Safety Injection.

The inadvertent closing of any one of the Safety Injection bottle isolation valves in conjunction with a LOCA has not been analyzed. To provide assurance that this will not occur, these valves are electrically locked open by a key switch in the control room. In addition, prior to critical the valves are checked open, and then the 480 volt breakers are opened. Thus, a failure of a breaker and a switch are required for any of the valves to close.

The limitation for a maximum of one high-pressure safety injection pump to be operable, and the Surveillance Requirement to verify all high-pressure safety injection pumps except the required operable pump to be inoperable below 250°F, provides assurance that a mass addition pressure transient can be relieved by the operation of a single PORV.

References (1) FSAR, Section 9.10.3. (2) FSAR, Section 6.1.

TABLE 4.1.2

Minimum Frequencies for Checks, Calibrations and Testing of Engineered Safety Feature Instrumentation Controls (Contd)

	Channel Description	Surveillance Function	Frequency	Surveillance Method
13.	Safety Injection Tank Level and Pressure Instruments	a. Check	S	a. Verify that level and pressure indication is between independent high high/low alarms for level and pressure.
		b. Calibrate	R	b. Known pressure and differential pressure applied to pressure and level sensors.
14.	Boric Acid Tank Level Switches	a. Test	R	a. Pump tank below low-level alarm point to verify switch operation.
15.	Boric Acid Heat Tracing System	a. Check	D	a. Observe temperature recorders for proper readings.
16.	Main Steam Isolation Valve Circuits	a. Check	S	a. Compare four independent pressure indications.
		b. Test(3)	R	b. Signal to meter relay adjusted with test device to verify MSIV circuit logic.
17.	SIRW Tank Temperature Indication and Alarms	a. Check	M	a. Compare independent temperature readouts.
		b. Calibrate	R	b. Known resistance applied to indicating loop.
18.	Low-Pressure Safety Injection Flow Control Valve CV-3006	a. Check	P	a. Observe valve is open with air supply isolated.
19.	Safety Injection Bottle Isolation Valves	a. Check	P	a. Ensure each valve open by observing valve position indication and valve itself. Then lock open breakers and control power key switches.
20.	Safety Injection Miniflow Valves CV-3027, 3056	a. Check	P	a. Verify valves open and HS-3027 and 3056 positioned to maintain them open.

NOTES: (1)Calibration of the sensors is performed during calibration of Item 5(b), Table 4.1.1.
(2)All monthly tests will be done on only one channel at a time to prevent protection system actuation.
(3)Calibration of the sensors is performed during calibration of Item 7(b), Table 4.1.1.
(4)The 1981 surveillance function may be deferred until the end of the 1981 refueling outage.

Proposed