e. Core flood tank (CFT) vent valves CF-V3A and CF-V3B shall be closed and the breakers to the CFT vent valve motor operators shall be tagged open, except when adjusting core flood tank level and/or pressure

3.3.1.3 Reactor Building Spray System and Reactor Building Emergency Cooling System

The following components must be operable:

a. Two reactor building spray pumps and their associated spray nozzles headers and two reactor building emergency cooling fans and associated cooling units (one in each train).

b. The sodium hydroxide tank level shall be maintained at 8 ft. $\pm$ 6 inches lower than the BWST level as measured by the BWST/NaOH tank level differential indicator. The NaOH tank concentration shall be 10.0 $\pm$ .5 weight percent (%).

c. All manual valves in the discharge lines of the sodium hydroxide tank shall be locked open.

3.3.1.4 Cooling Water Systems

a. Two nuclear service closed cycle cooling water pumps must be operable.

b. Two nuclear service river water pumps must be operable.

c. Two decay heat closed cycle cooling water pumps must be operable.

d. Two decay heat river water pumps must be operable.

e. Two reactor building emergency cooling river water pumps must be operable.

3.3.1.5 Engineered Safeguards Valves and Interlocks Associated with the Systems in specifications 3.3.1.1, 3.3.1.2, 3.3.1.3, 3.3.1.4 are operable.

3.3.2 Maintenance shall be allowed during power operation on any component(s) in the makeup and purification, decay heat, RB emergency cooling water, RB spray, CFT pressure instrumentation, CFT level instrumentation, BWST level instrumentation, or cooling water systems which will not remove more than one train of each system from service. Components shall not be removed from service so that the affected system train is inoperable for more than 72 consecutive hours. If the system is not restored to meet the requirements of Specifications 3.3.1 within 72 hours, the reactor shall be placed in a cold shutdown condition within twelve hours.

The iodine removal function of the reactor building spray system requires one spray pump and sodium hydroxide tank contents.

The spray system utilizes common suction lines with the decay heat removal system. If a single train of equipment is removed from either system, the other train must be assured to be operable in each system.

When the reactor is critical, maintenance is allowed per Specification 3.3.2 and 3.3.3 provided requirements in Specification 3.3.4 are met which assure operability of the duplicate components. The specified maintenance times are a maximum. Operability of the specified components shall be based on the results of testing as required by Technical Specification 4.5.

An allowable maintenance period of up to 72 hours may be utilized if the operability of equipment redundant to that removed from service is demonstrated immediately prior to removal.

In the event that the need for emergency core cooling should occur, operation of one makeup pump, one decay heat removal pump, and both core flood tanks will protect the core. In the event of a reactor coolant system rupture their operation will limit the peak clad temperature to less than 2,300 F and the metal-water reaction to that representing less than 1 percent of the clad.

Two nuclear service river water pumps and two nuclear service closed cycle cooling pumps are required for normal operation. The normal operation requirements are greater than the emergency requirements following a loss-of-coolant.

REFERENCES

(1) FSAR, Section 14.2.2.3

(2) FSAR, Section 9.5.2

(3) FSAR, Section 15.3.2

(4) FSAR, Section 14.2.2.3.4

TABLE 4.1-1 (Continued)

| | CHANNEL DESCRIPTION | CHECK | TEST | CALIBRATE | REMARKS |
|---|---|---|---|---|---|
| 38. | Steam Generator Water Level | W | NA | R | |
| 39. | Turbine Overspeed Trip | NA | R* | NA | |
| 40. | Sodium Hydroxide Tank Level | NA | NA | R | |
| 41. | BWST/NaOH Tank Differential Pressure Indicator | NA | NA | R | |
| 42. | Diesel Generator Protective Relaying | NA | NA | R | |
| 43. | 4 KV ES Bus Undervoltage Relays (Diesel Start) | | | | |
| | a. Degraded Grid | NA | M(1) | R | (1) Relay operation will be checke by local test pushbuttons |
| | b. Loss of Voltage | NA | M(1) | R | (1) Relay operation will be checke by local test pushbuttons |
| 44. | Reactor Coolant Pressure DH Valve Interlock Bistable | S(1) | M | R | (1) When reactor coolant system is pressurized above 300 psig or Tavg is greater than 200°F. |

S - Each Shift

D - Daily

W - Weekly

M - Monthly

T/W - Twice per week

B/M - Every 2 months

Q - Quarterly

P - Prior to each startup
If not done previous week

R - Each Refueling Period

NA - Not Applicable

B/W - Every two weeks

* Test to be performed prior to exceeding 20% power during Cycle 5 startup only.

TABLE 4.1-3 (Continued)

| Item | Check | Frequency |
|---|---|---|
| 11. Deleted | | |
| 12. Condenser Partition Factor | $I^{131}$ Partition Factor | Once if primary/ secondary leakage developes, i.e.: Gross Beta-Gamma on secondary side of OTSG is greater than $2 \times 10^{-6}$ micro curies per cc and evidence of fission products is present |

(1) When radioactivity level is greater than 10 percent of the limits of Specification 3.1.4, the sampling frequency shall be increased to a minimum of 5 times per week.

(2) $\bar{E}$ determination will be started when the 15 minute gross degassed beta-gamma activity analysis indicates greater than 10 µCi/ml and will be redetermined each 10 µCi/ml increase in the 15 minute gross degassed beta-gamma activity analysis. A radio chemical analysis for this purpose shall consist of a quantitative measurement of 95 percent of radionuclides in reactor coolant with half lives of >30 minutes.

(3) When the gross activity increases by a factor of two above background, an iodine analysis will be made and performed thereafter when the gross activity increases by 10 percent.