

TABLE 4.1-3 (Continued)

	<u>Check</u>	<u>Frequency</u>	<u>Maximum Time Be- tween Tests</u>
13. Turbine Inspection	Visual, Magnaflux and Dic Penetrant	Every five years	6 years
14. Fans and Associated Charcoal and Absolute Filters for Control Room and Residual Heat Removal Compartments (HVE-19, HVE-5a and 5b respectively)	Fans functioning, Laboratory tests on charcoal must show >99% iodine removal. In-place test must show >99% removal of polydispersed DOP particles by the HEPA filters and Freon by the charcoal filters.	Once per operating cycle	NA
15. Isolation Seal Water System	Functioning	Each refueling shutdown	NA
16. Overpressure Protection System	Functioning	Each refueling shutdown	NA
17. Primary Coolant System check valves	Functioning	1. Periodic leakage testing (a)(b) on each valve listed in Table 3.1-1 shall be accomplished prior to entering reactor operation condition (1) after every time the plant is placed in the cold shutdown condition for refueling, (2) after each time the plant is placed in a cold shutdown condition for 72 hours if testing has not been accomplished in the preceding 9 months, (3) after maintenance, repair or replacement work is performed.	(c)

(a) To satisfy ALARA requirements, leakage may be measured indirectly (as from the performance of pressure indicators) if accomplished in accordance with approved procedures and supported by computations showing that the method is capable of demonstrating valve compliance with the leakage criteria.

(b) Minimum test differential pressure shall not be less than 150 psid.

(c) More than one valve may be tested in parallel. The combined leakage must be ≤ 5 gpm. Redundant valves in each line may not be tested in series.

TABLE 3.1-1

PRIMARY COOLANT SYSTEM PRESSURE ISOLATION VALVES

<u>System</u>	<u>Valve No.</u>	Maximum (a) <u>Allowable Leakage</u>
Low-Pressure Safety Injection/Residual Heat Removal		≤ 5.0 GPM for each (b) valve
Loop 1, cold leg	875A 876A	
Loop 2, cold leg	875B 876B	
Loop 3, cold leg	875C 876C	
High-Pressure Injection		
Loop 2, hot leg	874B	
Loop 3, hot leg	874A	

- (a)
1. Leakage rates less than or equal to 1.0 gpm are considered acceptable.
 2. Leakage rates greater than 1.0 gpm but less than or equal to 5.0 gpm are considered acceptable if the latest measured rate has not exceeded the rate determined by the previous test by an amount that reduces the margin between measured leakage rate and the maximum permissible rate of 5.0 gpm by 50% or greater.
 3. Leakage rates greater than 1.0 gpm but less than or equal to 5.0 gpm are considered unacceptable if the latest measured rate exceeded the rate determined by the previous test by an amount that reduces the margin between measured leakage rate and the maximum permissible rate of 5.0 gpm by 50% or greater.
 4. Leakage rates greater than 5.0 gpm are considered unacceptable.

- (b)
- More than one valve may be tested in parallel. The combined leakage must be ≤ 5 gpm. Redundant valves in each line may not be tested in series.

3.1.5 Leakage

- 3.1.5.1 If the primary system leakage exceeds 1 gpm and the source of leakage is not identified within 12 hours, the reactor shall be placed in the hot shutdown condition utilizing normal operating procedures. If the source of leakage exceeds 1 gpm and is not identified within 24 hours, the reactor shall be placed in the cold shutdown condition utilizing normal operating procedures.
- 3.1.5.2 If the sources of leakage have been identified and it is evaluated that continued operation is safe, operation of the reactor with a total leakage rate not exceeding 10 gpm shall be permitted. If leakage exceeds 10 gpm, the reactor shall be placed in the hot shutdown condition within 12 hours utilizing normal operating procedures. If the leakage exceeds 10 gpm for 24 hours, the reactor shall be placed in the cold shutdown condition utilizing normal operating procedures.
- 3.1.5.3 If the leakage is determined to be primary to secondary steam generator leakage in excess of 0.35 gpm in any steam generator, or in excess of 1 gpm total for all three steam generators, the reactor shall be shutdown and the plant placed in the cold shutdown condition utilizing normal procedures within 30 hours after detection.
- 3.1.5.4
- a. During reactor operation and hot shutdown conditions, all pressure isolation valves listed in Table 3.1-1 shall be functional as a pressure isolation device, except as specified in 3.1.5.4.b. Valve leakage shall not exceed the amounts indicated.
 - b. In the event that integrity of any pressure isolation valve specified in Table 3.1-1 cannot be demonstrated, reactor operation may continue, provided that at least two valves in each high pressure line having a non-functional valve are in, and remain, in the mode corresponding to the isolated condition. (Manual valves shall be locked in the closed position; motor operated valves shall be placed in the closed position and power supplies deenergized).
 - c. If Specifications 3.1.5.4a or b cannot be met, an orderly shutdown shall be initiated and the reactor shall be in hot shutdown within 6 hours and in the cold shutdown condition within the following 30 hours.