

## REACTOR COOLANT SYSTEM

### 3/4.4.6 REACTOR COOLANT SYSTEM LEAKAGE

#### LEAKAGE DETECTION SYSTEMS

#### LIMITING CONDITION FOR OPERATION

3.4.6.1 The following Reactor Coolant System Leakage Detection Instrumentation shall be OPERABLE:

- a. The Containment Atmosphere Radioactivity Monitor (particulate channel), and
- b. The Containment Normal Sump Level and Flow Monitoring System.

APPLICABILITY: MODES 1, 2, 3, and 4.

#### ACTION:

- a. With the required containment atmosphere radioactivity monitor inoperable perform the following actions or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours:
  - 1) Restore the containment atmosphere monitor (particulate channel) to OPERABLE status within 30 days and,
  - 2) Obtain and analyze a grab sample of the containment atmosphere for particulate radioactivity at least once per 24 hours, or
  - 3) Perform a Reactor Coolant System water inventory balance at least once per 24 hours.
- b. With the required containment normal sump level and flow monitoring system inoperable perform the following actions or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours:
  - 1) Restore the containment normal sump and flow monitoring system to OPERABLE status within 30 days and,
  - 2) Perform a Reactor Coolant System water inventory balance at least once per 24 hours.
- c. With both a. and b. inoperable, enter 3.0.3.

#### SURVEILLANCE REQUIREMENTS

4.4.6.1 The Leakage Detection Systems shall be demonstrated OPERABLE by:

- a. Containment Atmosphere Monitoring (particulate channel) performance of the following:
  - 1) CHANNEL CHECK at least once per 12 hours, and
  - 2) CHANNEL CALIBRATION at least once per 18 months
- b. Containment Normal Sump Level and Flow Monitoring System performance of CHANNEL CALIBRATION at least once per 18 months.

## REACTOR COOLANT SYSTEM

### OPERATIONAL LEAKAGE

#### SURVEILLANCE REQUIREMENTS (Continued)

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4.4.6.2.1 Note: this requirement is not applicable to primary-to-secondary leakage (refer to 4.4.6.2.3).

Reactor Coolant System operational leakage shall be demonstrated to be within each of the above limits by:

- a. Monitoring the containment atmosphere particulate radioactivity channel at least once per 12 hours;
- b. Monitoring the containment normal sump inventory and discharge at least once per 12 hours;
- c. Performance of a Reactor Coolant System water inventory balance at least once per 72 hours; and <sup>(1)</sup>
- d. Monitoring the Reactor Head Flange Leakoff System at least once per 24 hours.

4.4.6.2.2 Each Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1 shall be demonstrated OPERABLE by verifying leakage to be within its limit:

- a. At least once per 18 months,
- b. Prior to entering MODE 2 whenever the plant has been in COLD SHUTDOWN for 72 hours or more and if leakage testing has not been performed in the previous 9 months,
- c. Prior to returning the valve to service following maintenance, repair or replacement work on the valve, and
- d. Prior to entering MODE 2 following valve actuation due to automatic or manual action or flow through the valve except for valves XRH0060 A, B, C, and XRH0061 A, B, C.

4.4.6.2.3 Primary-to-secondary leakage shall be verified  $\leq 150$  gallons per day through any one steam generator at least once per 72 hours. <sup>(1)</sup>

The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4.

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(1) Not required to be performed until 12 hours after establishment of steady state operation.