REPLACEMENT TECHNICAL SPECIFICATION PAGES
(Selected Marked-Up and Retyped Replacement Pages for Attachments B and C of LAR 97-03)

Replacement Pages

Marked-Up Pages (Attachment B)	Retyped Pages (Attachment C)
Second page of Insert D (page 3/4 4-14)	3/4 4-14b
Insert E (page 3/4 4-15)	3/4 4-15
3/4 4-20	3/4 4-20

Second page of Insert D

$$V_{MURL} = \frac{V_{SL}}{1.0 + NDE + Gr\left(\frac{CL-\Delta t}{CL}\right)}$$

$$V_{MLRL} = V_{MURL} - (V_{URL} - V_{LRL})\left(\frac{CL-\Delta t}{CL}\right)$$

where:

V_{URL}	=	upper voltage repair limit
V_{LRL}	=	lower voltage repair limit
V_{MURL}	=	mid-cycle upper voltage repair limit based on time into cycle
V_{MLRL}	=	mid-cycle lower voltage repair limit based on V_{MURL} and time into cycle
Δt	=	length of time since last scheduled inspection during which V_{URL} and V_{LRL} were implemented
CL	=	cycle length (the time between two scheduled steam generator inspections)
VSL	=	structural limit voltage
Gr	=	average growth rate per cycle length
NDE	=	95% cumulative probability allowance for nondestructive examination uncertainty (i.e., a value of 20% has been approved by the NRC)

Implementation of these mid-cycle repair limits should follow the same approach as in TS 4.4.5.4a.10)a, 4.4.5.4a.10)b, and 4.4.5.4a.10)c.

Note 1: The lower voltage repair limit is 2.0 volts for 7/8-inch diameter tubing at DCPP Units 1 and 2.

Note 2: The upper voltage repair limit is calculated according to the methodology in Generic Letter 95-05 as supplemented.

added in RAI response to Question 4.

[illegible]

INSERT E, page 3/4 4-15

d. For implementation of the voltage-based repair criteria to tube support plate intersections, notify the NRC prior to returning the steam generators to service should any of the following conditions arise:

1) If estimated leakage based on the projected end-of-cycle (or if not practical, using the actual measured end-of-cycle) voltage distribution exceeds the leak limit for the next operating cycle.

2) If circumferential crack-like indications are detected at the tube support plate intersections.

3) If indications are identified that extend beyond the confines of the tube support plate.

4) If indications are identified at the tube support plate elevations that are attributable to primary water stress corrosion cracking.

5) If the calculated conditional burst probability based on the projected end-of-cycle (or if not practical, using the actual measured end-of-cycle) voltage distribution exceeds 1×10^{-2}, notify the NRC and provide an assessment of the safety significance of the occurrence.

determined from the licensing basis dose calculation for the postulated main steamline break

Added in RAI response to Question 5.

[illegible]
[illegible]
[illegible]

[illegible]
[illegible]

SURVEILLANCE REQUIREMENTS

4.4.6.2.1 Reactor Coolant System leakages shall be demonstrated to be within each of the above limits by:

a. Monitoring the containment atmosphere particulate or gaseous radioactivity monitor at least once per 12 hours;

b. Monitoring the containment structure sump inventory and discharge at least once per 12 hours;

c. Measurement of the CONTROLLED LEAKAGE to the reactor coolant pump seals at least once per 31 days when the Reactor Coolant System pressure is 2235 ± 20 psig with the modulating valve fully open. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4;

d. Performance of a Reactor Coolant System water inventory balance at least once per 72 hours, except when T_{avg} is being changed by greater than 5°F/hour or when diverting reactor coolant to the liquid holdup tank, in which cases the required inventory balance shall be performed within 12 hours after completion of the excepted operation; ~~and~~

e. Monitoring the Reactor Head Flange Leakoff System at least once per 24 hours; and

f. Determination of steam generator primary-to-secondary leakage at least once per 72 hours. ~~except when source term and mass flow rates are changing, in which case an evaluation of primary-to-secondary leakage will be performed within 48 hours after stable conditions have been established.~~

4.4.6.2.2 As specified in Table 3.4-1, Reactor Coolant System pressure isolation valves shall be demonstrated OPERABLE pursuant to Specification 4.0.5, except that in lieu of any leakage testing required by Specification 4.0.5, each valve shall be demonstrated OPERABLE by verifying leakage to be within its limit:

a. Every refueling outage during startup,

b. Prior to returning the valve to service following maintenance, repair or replacement work on the valve, and

c. Within 24 hours following valve actuation due to automatic or manual action or flow through the valve. After each disturbance of the valve, in lieu of measuring leak rate, leak-tight integrity may be verified by absence of pressure buildup in the test line downstream of the valve.

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

deleted in response to RAI Question 13

SURVEILLANCE REQUIREMENTS (Continued)

e. If an unscheduled mid-cycle inspection is performed, the following mid-cycle repair limits apply instead of the limits identified in 4.4.5.4a.10)a, 4.4.5.4a.10)b, and 4.4.5.4a.10)c. The mid-cycle repair limits are determined from the following equations:

$$V_{MURL} = \frac{V_{SL}}{1.0 + NDE + Gr\,\frac{(CL - \Delta t)}{CL}}$$

$$V_{MURL} = V_{MURL} - (V_{URL} - V_{LRL})\,\frac{(CL - \Delta T)}{CL}$$

where:

V_{URL} = upper voltage repair limit

V_{LRL} = lower voltage repair limit

V_{MURL} = mid-cycle upper voltage repair limit based on time into cycle

V_{MLRL} = mid-cycle lower voltage repair limit based on V_{MURL} and time into cycle

Δt = length of time since last scheduled inspection during which V_{URL} and V_{LRL} were implemented

CL = cycle length (the time between two scheduled steam generator inspections)

VSL = structural limit voltage

Gr = average growth rate per cycle length

NDE = 95% cumulative probability allowance for nondestructive examination uncertainty (i.e., a value of 20% has been approved by NRC)

Implementation of these midcycle repair limits should follow the same approach as in TS 4.4.5.4a.10)a, 4.4.5.4a10)b, and 4.4.5.4a.10)c.

NOTE 1: The lower voltage repair limit is 2.0 volts for 7/8 inch diameter tubing at DCPP Units 1 and 2.

NOTE 2: The upper voltage repair limit is calculated according to the methodology in Generic Letter 95-05 as supplemented.

b. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug all tubes exceeding the plugging limit) required by Table 4.4-2.

SURVEILLANCE REQUIREMENTS (Continued)

4.4.5.5 Reports

a. Within 15 days following the completion of each inservice inspection of steam generator tubes, the number of tubes plugged in each steam generator shall be reported to the Commission in a Special Report pursuant to Specification 6.9.2.

b. The complete results of the steam generator tube inservice inspection shall be submitted to the Commission in a Special Report pursuant to Specification 6.9.2 within 12 months following completion of the inspection. This Special Report shall include:

   1) Number and extent of tubes inspected,

   2) Location and percent of wall-thickness penetration for each indication of an imperfection, and

   3) Identification of tubes plugged.

c. Results of steam generator tube inspections, which fall into Category C-3, shall be reported in a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days and prior to resumption of plant operation. This report shall provide a description of investigations conducted to determine cause of the tube degradation and corrective measures taken to prevent recurrence.

d. For implementation of the voltage-based repair criteria to tube support plant intersections, notify the NRC prior to returning the steam generators to service should any of the following conditions arise:

   1) If estimated leakage based on the projected end-of-cycle (or if not practical, using the actual measured end-of-cycle) voltage distribution exceeds the leak limit determined from the licensing basis dose calculation for the postulated main steamline break for the next operating cycle.

   2) If circumferential crack-like indications are detected at the tube support plant intersections.

   3) If indications are identified that extend beyond the confines of the tube support plate.

   4) If indications are identified at the tube support plant elevations that are attributable to primary water stress corrosion cracking.

   5) If the calculated conditional burst probability based on the projected end-of-cycle (or if not practical, using the actual measured end-of-cycle) voltage distribution exceeds 1×10^{-2}, notify the NRC and provide an assessment of the safety significance of the occurrence.

REACTOR COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS

4.4.6.2.1 Reactor Coolant System leakages shall be demonstrated to be within each of the above limits by:

a. Monitoring the containment atmosphere particulate or gaseous radioactivity monitor at least once per 12 hours;

b. Monitoring the containment structure sump inventory and discharge at least once per 12 hours;

c. Measurement of the CONTROLLED LEAKAGE to the reactor coolant pump seals at least once per 31 days when the Reactor Coolant System pressure is 2235 ± 20 psig with the modulating valve fully open. The provisions of Specification 4.0.4 are not applicable for entry into MODE 3 or 4;

d. Performance of a Reactor Coolant System water inventory balance at least once per 72 hours, except when T_{avg} is being changed by greater than 5°F/hour or when diverting reactor coolant to the liquid holdup tank, in which cases the required inventory balance shall be performed within 12 hours after completion of the excepted operation; and

e. Monitoring the Reactor Head Flange Leakoff System at least once per 24 hours; and

f. Determination of steam generator primary-to secondary leakage at least once per 72 hours.

4.4.6.2.2 As specified in Table 3.4-1, Reactor Coolant System pressure isolation valves shall be demonstrated OPERABLE pursuant to Specification 4.0.5, except that in lieu of any leakage testing required by Specification 4.0.5, each valve shall be demonstrated OPERABLE by verifying leakage to be within its limit:

a. At least once each REFUELING INTERVAL during startup,

b. Prior to returning the valve to service following maintenance, repair or replacement work on the valve, and

c. Within 24 hours following valve actuation due to automatic or manual action or flow through the valve. After each disturbance of the valve, in lieu of measuring leak rate, leak-tight integrity may be verified by absence of pressure buildup in the test line downstream of the valve.

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