

Table 3.3.1-1 (page 2 of 3)
Reactor Protective System Instrumentation

FUNCTION	Modes	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
6. Steam Generator Pressure-Low ^(c)	1, 2	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.7 SR 3.3.1.8 SR 3.3.1.9	≥ 685 psia
7. Steam Generator Level-Low	1, 2	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.8 SR 3.3.1.9	≥ 50 inches below normal water level*
8. Axial Power Distribution-High ^(d)	1 ^(e)	SR 3.3.1.1 SR 3.3.1.2 SR 3.3.1.3 SR 3.3.1.4 SR 3.3.1.5 SR 3.3.1.7 SR 3.3.1.8 SR 3.3.1.9	In accordance with the COLR
9a. Thermal Margin/Low Pressure (TM/LP) ^(b)	1, 2	SR 3.3.1.1 SR 3.3.1.2 SR 3.3.1.3 SR 3.3.1.4 SR 3.3.1.5 SR 3.3.1.7 SR 3.3.1.8 SR 3.3.1.9	In accordance with the COLR

* For Unit 2, the ALLOWABLE VALUE shall remain ≥ 10 inches below top of feed ring through Cycle 14.

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.1 RCS Pressure, Temperature, and Flow Departure from Nucleate Boiling (DNB) Limits

LCO 3.4.1 RCS DNB parameters for pressurizer pressure, cold leg temperature, and RCS total flow rate shall be within the limits specified below:

- a. Pressurizer pressure ≥ 2200 psia;
- b. RCS cold leg temperature (T_c) $\leq 548^\circ\text{F}$; and
- c. RCS total flow rate $\geq 370,000^*$ gpm.

APPLICABILITY: MODE 1.

----- NOTE -----
Pressurizer pressure limit does not apply during:

- a. THERMAL POWER ramp $> 5\%$ RTP per minute; or
- b. THERMAL POWER step $> 10\%$ RTP.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. RCS DNB parameter(s) not within limits.	A.1 Restore parameter(s) to within limit.	2 hours

* For Unit 2, the RCS total flow rate shall remain $\geq 340,000$ gpm through Cycle 14.

RCS Pressure, Temperature, and Flow DNB Limits
3.4.1

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 2.	6 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.1.1 Verify pressurizer pressure \geq 2200 psia.	12 hours
SR 3.4.1.2 Verify RCS cold leg temperature \leq 548°F.	12 hours
SR 3.4.1.3 Verify RCS total flow rate \geq 370,000* gpm.	12 hours
SR 3.4.1.4 Verify measured RCS total flow rate is within limits.	24 months

* For Unit 2, the RCS total flow rate shall remain \geq 340,000 gpm through Cycle 14.

5.5 Programs and Manuals

5. % Degradation means the percentage of the tube wall thickness affected or removed by degradation.
6. Defect means an imperfection of such severity that it exceeds the plugging or repair limit. A tube containing a defect is defective. Any tube which does not permit the passage of the eddy-current inspection probe shall be deemed a defective tube.
7. Plugging or Repair Limit means the imperfection depth at or beyond which the tube shall be removed from service by plugging, or repaired by sleeving in the affected area because it may become unserviceable prior to the next inspection. The plugging or repair limit imperfection depths are specified in percentage of nominal wall thickness as follows:

i. original tube wall	40%
ii. ABB-Combustion Engineering leak tight sleeve wall (Unit 2 through Cycle 14 only. Not applicable for Unit 1.)	28%
iii. ABB-Combustion Engineering Alloy 800 leak-limiting sleeve wall (Unit 2 through Cycle 14 only. Not applicable for Unit 1.)	35%
8. Unserviceable describes the condition of a tube if it leaks or contains a defect large enough to affect its structural integrity in the event of an Operating Basis Earthquake, a loss-of-coolant accident, or a steam line or feedwater line break as specified in 5.5.9.c.3 above.
9. Tube Inspection means an inspection of the steam generator tube from the point of entry (hot leg side) completely around the U-bend to the top support of the cold leg.

5.5 Programs and Manuals

10. Tube Repair refers to a process that reestablishes tube serviceability. Acceptable tube repairs will be performed by the following processes:

- i. ABB-Combusting Engineering Leak Tight Sleaving as described in the proprietary ABB-Combustion Engineering Report CEN-630-P, Revision 01, "Repair of 3/4" O.D. Steam Generator Tubes Using Leak Tight Sleeves," August 1996. A post-weld heat treatment during installation will be performed. (Unit 2 through Cycle 14 only. Not applicable for Unit 1.)
- ii. ABB-Combustion Engineering Alloy 800 leak-limiting sleaving as described in the Proprietary ABB Combustion Engineering Report CEN-633-P, Revision 03-P, "Steam Generator Tube Repair For Combustion Engineering Designed Plants with 3/4-.048 Inch Wall Inconel 600 Tubes Using Leak Limiting Alloy 800 Sleeves, " October 1998. (Unit 2 through Cycle 14 only. Not applicable for Unit 1.)

Tube repair includes the removal of plugs that were previously installed as a corrective or preventive measure. A tube inspection per 5.5.9.d.9 is required prior to returning previously plugged tubes to service.

- e. Surveillance Completion - The Steam Generator Tube Surveillance Program is met after completing the corresponding actions (plug or repair all tubes exceeding the plugging limit and all tubes containing through-wall cracks) required by Tables 5.5.9-2 and 5.5.9-3.