

TABLE 2.2-1 (Continued)

REACTOR PROTECTIVE INSTRUMENTATION TRIP SETPOINT LIMITS

<u>FUNCTIONAL UNIT</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUES</u>
9. Local Power Density - High	$\leq 20.3$ kw/ft (5)	$\leq 20.3$ kw/ft (5)
10. DNBR - Low	$\geq 1.24$ (5) (6)	$\geq 1.24$ (5) (6)
11. Steam Generator Level - High	$\leq 93.7\%$ (4)	$\leq 94.589\%$ (4)

TABLE NOTATION

- (1) Trip may be manually bypassed above  $10^{-4}\%$  of RATED THERMAL POWER; bypass shall be automatically removed when THERMAL POWER is  $\leq 10^{-4}\%$  of RATED THERMAL POWER.
- (2) Value may be decreased manually, to a minimum value of 100 psia, during a planned reduction in pressurizer pressure, provided the margin between the pressurizer pressure and this value is maintained at  $\leq 200$  psi; the setpoint shall be increased automatically as pressurizer pressure is increased until the trip setpoint is reached. Trip may be manually bypassed below 400 psia; bypass shall be automatically removed whenever pressurizer pressure is  $\geq 500$  psia.
- (3) Value may be decreased manually during a planned reduction in steam generator pressure, provided the margin between the steam generator pressure and this value is maintained at  $\leq 200$  psi; the setpoint shall be increased automatically as steam generator pressure is increased until the trip setpoint is reached.
- (4) % of the distance between steam generator upper and lower level instrument nozzles.
- (5) As stored within the Core Protection Calculator (CPC). Calculation of the trip setpoint includes measurement, calculational and processor uncertainties, and dynamic allowances. Trip may be manually bypassed below  $10^{-4}\%$  of RATED THERMAL POWER; bypass shall be automatically removed when THERMAL POWER is  $\geq 10^{-4}\%$  of RATED THERMAL POWER.
- (6) The minimum allowable value of the addressable constant BERR1 in each OPERABLE CPC channel is 1.112. Upon NRC approval of the Statistical Combination of Uncertainties Methodology as described in CEN-139(A)-P, the minimum allowable value of BERR1 is 1.055.

## SAFETY LIMITS AND LIMITING SAFETY SYSTEM SETTINGS

### BASES

a. RCS Cold Leg Temperature-Low	$\geq 465^{\circ}\text{F}$
b. RCS Cold Leg Temperature-High	$\leq 605^{\circ}\text{F}$
c. Axial Shape Index-Positive	Not more positive than +0.6
d. Axial Shape Index-Negative	Not more negative than -0.6
e. Pressurizer Pressure-Low	$\geq 1750 \text{ psia}$
f. Pressurizer Pressure-High	$\leq 2400 \text{ psia}$
g. Integrated Radial Peaking Factor-Low	$\geq 1.28$
h. Integrated Radial Peaking Factor-High	$\leq 4.28$
i. Quality Margin-Low	$\geq 0$

### Steam Generator Level-High

The Steam Generator Level-High trip is provided to protect the turbine from excessive moisture carry over. Since the turbine is automatically tripped when the reactor is tripped, this trip provides a reliable means for providing protection to the turbine from excessive moisture carry over. The trip's setpoint does not correspond to a Safety Limit and no credit was taken in the accident analyses for operation of this trip. Its functional capability at the specified trip setting is required to enhance the overall reliability of the Reactor Protection System.

### 2.2.2 CPC Addressable Constants

The Core Protection Calculator (CPC) addressable constants are provided to allow calibration of the CPC system to more accurate indications such as calorimetric measurements for power level and RCS flow rate and in core detector signals for axial flux shape, radial peaking factors and CEA deviation penalties. Other CPC addressable constants allow penalization of the calculated DNBR and LPD values based on measurement uncertainties or inoperable equipment. Administrative controls on changes and periodic checking of addressable constant values (See also Technical Specification 2.2.1.1 and 6.8.1) ensures that inadvertent misloading is unlikely. The methodology for determination of CPC addressable constant values is described in AP&L letter 2CAN058113 dated May 26, 1981.