

Table 3.3.1-1 (page 4 of 5)
Reactor Trip System Instrumentation

Note 1: Overtemperature ΔT

The Overtemperature ΔT Function Allowable Value shall not exceed the following nominal trip setpoint by more than 2.0% of ΔT span.

$$\Delta T \leq \Delta T_0 \left\{ K_1 - K_2 \frac{(1 + \tau_1 s)}{(1 + \tau_2 s)} [T - T'] + K_3 (P - P') - f_1(\Delta I) \right\}$$

Where: ΔT is measured RCS ΔT , °F.
 ΔT_0 is the indicated ΔT at RTP, °F.
 s is the Laplace transform operator, sec^{-1} .
 T is the measured RCS average temperature, °F.
 T' is the nominal T_{avg} at RTP, \leq [*]°F.

P is the measured pressurizer pressure, psig
 P' is the nominal RCS operating pressure, \geq [*] psig

$K_1 \leq$ [*] $K_2 \geq$ [*]/°F $K_3 \geq$ [*]/psig

$\tau_1 \geq$ [*] sec $\tau_2 \leq$ [*] sec

| | | | |
|-------------------------------|-------------------------------|--|--|
| $f_1(\Delta I) =$ | [*] { [*] - ($q_t - q_b$) } | when $q_t - q_b <$ [*]% RTP | |
| 0 | | when [*]% RTP $\leq q_t - q_b \leq$ [*]% RTP | |
| [*] { ($q_t - q_b$) - [*] } | | when $q_t - q_b >$ [*]% RTP | |

Where q_t and q_b are percent RTP in the upper and lower halves of the core, respectively, and $q_t + q_b$ is the total THERMAL POWER in percent RTP.

The values denoted with [*] are specified in the COLR.