

ENCLOSURE 3

VOGTLE ELECTRIC GENERATING PLANT
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
OVERTEMPERATURE DELTA-T AND OVERPOWER DELTA-T
REACTOR TRIP FUNCTIONS

INSTRUCTIONS FOR INCORPORATION

The proposed change should be incorporated in the Technical Specifications as outlined below:

Remove Page

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Insert Page

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* Overleaf page containing no change.

E3-1

TABLE 2.2-1 (Continued)

TABLE NOTATIONS

NOTE 1: OVERTEMPERATURE ΔT

$$\Delta T \frac{(1 + \tau_1 S)}{(1 + \tau_2 S)} \left(\frac{1}{1 + \tau_3 S} \right) \leq \Delta T_0 \{ K_1 - K_2 \frac{(1 + \tau_4 S)}{(1 + \tau_5 S)} [T \left(\frac{1}{1 + \tau_6 S} \right) - T'] + K_3(P - P') - f_1(\Delta T) \}$$

Where: ΔT = Measured ΔT
 $\frac{1 + \tau_1 S}{1 + \tau_2 S}$ = Lead-lag compensator on measured ΔT ;

 τ_1, τ_2 = Time constants utilized in lead-lag compensator for ΔT , $\tau_1 \geq 8$ s,
 $\tau_2 \leq 3$ s;

 $\frac{1}{1 + \tau_3 S}$ = Lag compensator on measured ΔT ;

 τ_3 = Time constants utilized in the lag compensator for ΔT , $\tau_3 = \cancel{X}^2$ s;

 ΔT_0 = Indicated ΔT at RATED THERMAL POWER;

 K_1 \leq 1.12

 K_2 = 0.0224/ $^{\circ}$ F

 $\frac{1 + \tau_4 S}{1 + \tau_5 S}$ = The function generated by the lead-lag compensator for T_{avg}
dynamic compensation;

 τ_4, τ_5 = Time constants utilized in the lead-lag compensator for T_{avg} , $\tau_4 \geq 28$ s,
 $\tau_5 \leq 4$ s;

 T = Average temperature, $^{\circ}$ F;

 $\frac{1}{1 + \tau_6 S}$ = Lag compensator on measured T_{avg} ;

 τ_6 = Time constant utilized in the measured T_{avg} lag compensator, $\tau_6 = 0$ s;

TABLE 2.2-1 (Continued)

TABLE NOTATIONS (Continued)

NOTE 3: OVERPOWER ΔT

$$\Delta T \frac{(1 + \tau_1 S)}{(1 + \tau_2 S)} \left(\frac{1}{1 + \tau_3 S} \right) \leq \Delta T_0 \left\{ K_4 - K_5 \left(\frac{\tau_7 S}{1 + \tau_7 S} \right) \left(\frac{1}{1 + \tau_6 S} \right) T - K_6 \left[T \left(\frac{1}{1 + \tau_6 S} \right) - T'' \right] - f_2(\Delta T) \right\}$$

Where: ΔT = Measured ΔT
 $\frac{1 + \tau_1 S}{1 + \tau_2 S}$ = Lead-lag compensator on measured ΔT ;

 τ_1, τ_2 = Time constants utilized in lead-lag compensator for ΔT , $\tau_1 \geq 8$ s, $\tau_2 \leq 3$ s;

 $\frac{1}{1 + \tau_3 S}$ = Lag compensator on measured ΔT ;

 τ_3 = Time constants utilized in the lag compensator for ΔT ,
 $\tau_3 = 2$ s;
 ΔT_0 = Indicated ΔT at RATED THERMAL POWER; K_4 \leq ~~1.08~~ 1.095 K_5 \geq 0.02/°F for increasing average temperature and ≥ 0 for decreasing average temperature,
 $\frac{\tau_7 S}{1 + \tau_7 S}$ = The function generated by the rate-lag compensator for T_{avg} dynamic compensation,

 τ_7 = Time constants utilized in the rate-lag compensator for T_{avg} , $\tau_7 \geq 10$ s,

 $\frac{1}{1 + \tau_6 S}$ = Lag compensator on measured T_{avg} ;