Cooling Tower Model for ECGS #3

	Design	Test	Units
Wet Bulb Temperature	80.00	70.34	Deg F
Barometric Pressure	14.70	14.59	PSIA
Cold Water Temperature	91.00	87.32	Deg F
Hot Water Temperature	109.00	102.38	Deg F
Calculated Temperature Range	18.00	15.06	Deg F
Circulating Water Flow Rate	31,500	35,980	GPM; Condenser Flow + 1210
Pump Discharge Pressure	25.00	25.00	PSIG
Pump Efficiency	0.90	0.90	Percent
Cold Water Temperature Adjustment Due to Pump Energy	0.08	0.08	Deg F
Adjusted Cold Water Temperature	91.00	87.32	Deg F
Fan Horsepower / No Correction Made for Fan HP	95.00	95.00	HP; Could not find design data
Corrected Fan Horsepower (Air Density Correction)		96.71	HP
Adjusted CW Flow		35,767	GPM
Percent of Design Flow	100.0%	113.5%	Percent
Predicted CWT @ 90% of Flow - Design Curves	89.35	82.12	Deg F
Predicted CWT @ 100% of Flow - Design Curves	91.10	83.20	Deg F
Predicted CWT @ 110% of Flow - Design Curves	92.33	84.80	Deg F
Predicted Cold Water Temperature	91.10	85.36	Deg F
Delta Cold Water Temperature		1.95	Deg F
Impact of Increase in Cold Water Temperature on BP		0.23	Condenser Model with Change in CWT
Impact of Cold Water Temperature on HR		0.62%	From Steam Turbine Curves
Prediected Percent of Design Flow	100.0%	125.8%	%
Predicted Circulating Water Flow Rate	31,500	39,624	GPM
Tower Capacity (% of Design)	**100.0%**	**90.3%**	**%**
Intermediate Calcs			
L/G	1.25	1.42	
Exit Air Wet Bulb Temperature	100.00	83.20	Average of CWT & HWT / Measured
Exit Air Specific Humidity	0.044	0.025	Call to Library for Tdb=Twb=Exit Air Temp
Exit Air Density	0.089	0.088	