TROUBLE ANALYSIS TABLE

Trouble	Causes	Counter-Measures
Rise in cooling water temperature	1. Excess or inadequate cooling water flow. 2. Irregular flow of air. 3. Recirculation of air exhausted from tower. 4. Irregular operation of sprinkler pipes. 5. Improper flow of air. 6. Blocking of the filling.	1. Adjust to the specified flow. 2. Improve ventilation. 3. Same as above or install baffles. 4. Remove dust and scale. 5. Adjust the angle of fan blades. Clean the blocked areas.
Drop in the volume of cooling water	1. Blocking of the sprinkler pipe holes. 2. Blocking of strainer mesh. 3. Drop in the water level of water basin. 4. Improper selection of water circulating pump.	1. See section for maintenance and adjustment. 2. Remove strainer and clean. 3. Adjust float valve. Replace the pump with one matching planned volume of water.
Noise and vibration	1. Fan blade tips touching fan stack. 2. Improper mounting of fan blades. 3. Loose belts. 4. Shortage of speed reducer oil.	1. Adjust the fan mounting. 2. Correct the blade angle settings. 3. Tighten loose bolts. 4. Supply oil up to the level specified.
Excessive current draw	1. Drop in voltage. 2. Irregularities in the angles of the fan blades. 3. Overload through excess airflow.	1. Check supply voltage. Notify power company if necessary. 2. Adjust fan blade angles. 3. Adjust fan blade angles.
Water carry over	1. Irregular operation of sprinkler pipes. 2. Blocking of the filling. 3. Defective eliminator. 4. Too much circulating water.	1. Adjust the angle of the sprinkler pipes in the sprinkler head. 2. Eliminate blockage at the upper edge of the filling. 3. Renew the eliminator. Adjust the water flow by means of the valve.

Reference:

http://www.coolingtowersystems.com/operatinginstructions/trouble.htm