

Extended Abstract

The cooling tower water's influence on turbines and condensers thermal efficiency were researched in this paper and the condenser working condition impact to turbines thermal efficiency was also discussed. Based on the basic model of turbines, condensers and cooling water, the optimization model for the system of turbines, condensers, cooling water and cooling water towers fan was proposed. One paper mill power plant which has multiple turbines, condensers and cooling water towers was taken as a case to verify the optimization model, the result showed that the optimization model was practical and useful for paper mill power plant; it can improve power plant efficiency and bring good economical performance for paper mill.