



The Problem of Cooling Tower Effect to Energy Loss in Air Conditioning System Using Chiller (Case Study in the Upper Northeastern Region)

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Abstract

This report was the study result of energy loss in air conditioning systems using all types of chiller effect to energy loss. This report shows the finding about problems from cooling tower from the 32 building in the upper northeastern region of Thailand. We found that the 56 cooling tower in 33 building had the runtime not over 5 years and we can divide the main group of energy loss to 4 groups consistant with the problem of the cooling not as designed. The problem of electrical power of cooling fan is lower than specification, the problem of water drop spray return back and the problem of the cooling tower door is open. The percentage of the problem is 41.5, 37.7, 11.3 and 9.5 respectively it makes to the energy loss in chiller because the cooling is not at full performance about 720,049 kWh/year this between the study process we can solve the problem to saving the energy 318,870 kWh/year

Keywords: Cooling tower, problem , energy conservation , chiller