

عنوان مقاله:

A Study of Peripheral Wind Breakers

محل انتشار:

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خلاصه مقاله:

Cooling towers are evaporative heat transfer devices in which atmospheric air cools warm water, with direct contact between the water and the air, by evaporating part of the water, mostly used in air conditioning and industrial processes. Cooling efficiency of a natural draft, dry cooling tower (NDDCT) is significantly affected under cross-wind condition. This paper investigates a solution that may improve cooling performance of cooling towers, with particular interest in peripheral wind breakers methods around towers. The study explores a realistic scenario with four cooling towers in-square arrangement. A power plant cooling towers performance has been modeled numerically for different distances of peripheral wind breakers. The results are compared and it is concluded that the peripheral wind breaker at 25 m has the best efficiency improvement

کلمات کلیدی:

peripheral wind breaker, modeling, cooling tower, efficiency

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