

Porrawee Nakakul 2009: Algae Control in Water Treatment System by Resonance Frequency
Case Study: Bangkhen Water Treatment Plant Metropolitan Waterworks Authority.
Master of Engineering (Environmental Engineering), Major Field: Environmental Engineering,
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Monthon Thanuttamavong, Ph.D. 74 pages.

The Bangkhen Water Treatment Plant Metropolitan Waterworks Authority which produces water at a force of 3.6 million cubic meters/ day is in progress for 24 hours a day. As the raw water supply from Chao Phraya River is far away from the plant there are many factors to encourage algae to bloom in the water. Due to an algae bloom problem, the water supply constitutes some negative impact on the raw water quality and water treatment process. The purpose of this research was to study the efficiency of algae growth inhibition of Resonance frequency with chlorine by focusing on reducing the dose of chlorine before treatment to control the chlorine by-product. And to analyze changing of the physical and chemical qualifications of the water after contact resonance frequency and effect of resonance frequency with the coagulant (Alum).

The result showed that using Resonance frequency to inhibit algae growth in raw water of the Bangkhen Water Treatment Plant can reduce chlorine concentration 0.5 mg/litre of raw water treatment process that uses 2 mg/l of solid chlorine 5.15%. Furthermore turbidity, conductivity, alkalinity and pH had more values of using 2 mg/l of solid chlorine 2.74 %, 1.31 %, 1.39 % and 0.01. According to the changing of raw water qualification, the concentration of Alum 1% is increase 5 mg/l.

Student's signature

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