EDUCATION

ALGAE CONTROL 101

OVERVIEW

What is algae? It is 'a simple, nonflowering, and typically aquatic plant of a large group that includes the seaweeds and many single-celled forms. Algae contain chlorophyll but lack true stems, roots, leaves, and vascular tissue'.[1] The term "algae" covers many different organisms capable of producing oxygen through photosynthesis (the process of harvesting light energy from the sun to generate carbohydrates). These organisms are not necessarily closely related. However, certain features unite them, while distinguishing them from the other major group of photosynthetic organisms: the land plants. Algae is thought to be the first living organism on planet earth, and requires moisture, sunlight, and nutrients to grow.

1.https://www.livescience.com/54979-what-are-algae.html

ALGAE IN COOLING TOWERS

Algae can be a problem in cooling towers where a significant amount of sunlight reaches the water. Much like bacteria though, a little algae in the sunlit parts of a cooling tower does not reduce evaporation or heat transfer. It is larger algae buildups that reduce effectiveness of cooling towers.

WHY DO WE WANT TO CONTROL ALGAE?

Thick mats of algae can promote under-deposit corrosion and harbor other damaging bacteria.
Green, blue-green algae are very common in cooling systems (blue-green algae are now classified with the bacteria and are called cyanobacteria). Various types of algae can be responsible for green growths which block screens and distribution decks.

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HOW DO WE MANAGE ALGAE IN A COOLING TOWER?

1. Clean your cooling towers regularly. Due to "perfect" conditions for growing algae, your cooling tower may be in need of more frequent cleaning.
2. Develop and follow an effective water management plan outlined by Capture H_2O. This plan may include the feeding of oxidizing and non-oxidizing biocide chemicals while at lower cycles of concentration (COC). Using these chemicals will help prevent algae growth and/or kill existing algae but sometimes may not be enough. In tenacious situations an algicide chemical will have to be implanted.
3. Use the higher pH that comes with raising the tower water cycles up. When the pH (power of hydrogen) rises above 9.3 the water becomes biostatic, an environment where organisms cannot grow.

CAPTURE H_2O's PROVEN PROCESS

1. Assess your Needs

2. Design your Program

3. Install, Commission, and Train

4. Optimize your System

5. Measure Savings

CAPTURE H_2O

Find out how Capture H_2O can help your business shift to a more sustainable, cost-effective water treatment program at www.captureh2o.com