BALTIC FLOWS

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Treatment of water with electromagnetic induction

ADVANTAGES

1. Chemical free
2. Minimum maintain.
3. Very low running costs (1-20 W)
4. Easy to install
5. Improve filtration (better than Alum for pools)
6. Improve efficiency in heat exchangers (reduce calcite and bio film 98%)
7. Decrease surface tension (better irrigation, less runoff of nutrients salts)
8. Decrease corrosion

OBJECTS

- 1. Cooling towers (efficiency, Legionella, calcite)
- 2. Dams (cleaner water (sedimentation and/or filtration))
- 3. Mines (process water, high TDS, corrosion, calcite)
- 4. Nuclear plants (sea water cooling improvements)
- 5. Property market (improve efficiency heaters, less corrosion)
- 6. Pools (better filtration, less THM, clear water)

HOW IT WORKS

FEATURES

1. Conducts an electrical current through the conductive fluid that i turn generates a diminishing electromagnetic field that switches on and off up to 40 000 times per second. One micro watt is capable of generating 276 000 000 000 nucleation events.
2. You get much more water molecules with dipole charges avialable.
3. Decrease the solubility product
4. Particles and surfaces in water will be charged both positive negative.
5. Water molecules will bind to charged surfaces.
6. Bio film and bacteria will be released and killed by the difference in osmotic pressure.
7. Particles will be added to each other and build up big complex which make it easier to separate them with filters.

BENEFITS

1. No running stop when installation
2. No limtation of flow speed, no pressure fall
3. Work in stagnant water with big radii.
   (Storage tanks will diminsh the signal)
4. Replace chemicals as Alum, salt (brine), ….
5. Reduce bio film 98%
6. Reduce corrosion.

SUMMARY

1. Very low running costs (1-20 W)
2. No maintain
3. Non-polluting, no chemicals
4. Better efficiency in heat exchangers
5. Decrease corrosion
6. Work very well with sea water
7. Money back guarantee.

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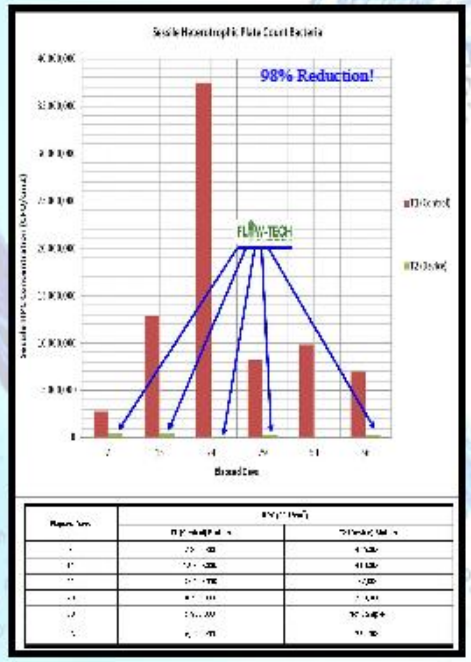
FLOW-TECH
WATER TREATMENT SYSTEM

Third Party Evaluation

Background

In 2009 ASHRAE commissioned a study through the University of Pittsburgh Department of Civil and Environmental Engineering. The two parties collectively established a protocol to test non-chemical water treatment systems and evaluate their efficacy of controlling biological fouling in cooling water systems. After an eight month comprehensive evaluation it was concluded that none of the five different chemical free systems showed any ability to control sessile or planktonic microbial growth rates compared with the control!

In April of 2012 Flow-Tech Systems commissioned UPitt to test their Chemical Free water treatment system under this same protocol and the results were very positive

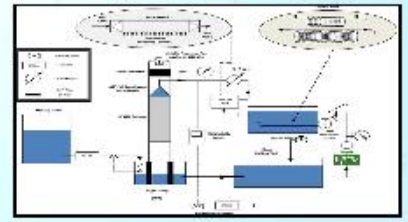


Results

During this investigation, two identical pilot-scale cooling towers were operated simultaneously under similar operating conditions. The model cooling tower systems were used to closely simulate realistic field conditions, including heat load, evaporative cooling, blowdown system, and water make-up. The cooling towers were operated to encourage the formation of surface occuring biofilm (sessile biomass) in the tower. One tower (T1) acted as a control system throughout the study, and this tower received no treatment. The second tower (T2) received treatment from the Flow-Tech device throughout the course of the testing period.

The test duration was just under 2 months. Biofilm coupon samples were pulled and sent to a Special Pathogens Laboratory for culture and counts.

The Flow-Tech system reduced sessile bacterial growth by between 1-3 log. On average, sessile heterotrophic plate count concentrations were approximately 50 times higher in T1 (Control) than in T2 (Device) or in other words, the Flow-Tech treated tower realized a 98% reduction is biofilm growth.



** A copy of this complete study is available upon request **

This test evaluation was overseen by :

Department of Civil and Environmental Engineering,
University of Pittsburgh, Pittsburgh , PA

Special Pathogens Laboratory
Pittsburgh, PA

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