

THE TRUTH ABOUT NON-CHEMICAL WATER TREATMENT DEVICES

For over 50 years, non-chemical devices (NCD) have been marketed in the water treatment industry claiming to control or eliminate scale, corrosion, deposition and microbiological growths in cooling tower and boiler systems. These devices base their claims on magnetic, electromagnetic, electrostatic or catalytic theories which sound feasible, as presented in product literature, but when the devices are field tested or subjected to legitimate scientific studies, they simply do not work. Lately these devices have been marketed with the promises of saving money, reducing costs and protecting the environment, to be part of "green technology". This effective marketing campaign by the cooling tower manufacturers overlooks the history of failed field tests and normal value engineered costs. Several independent scientific studies and field tests have been done over the years on similar devices to evaluate their effectiveness in controlling scale, corrosion and biological growths, including the U.S. Army Corps of Engineers, Arthur Freedman Associates, Inc., Iowa State University, Milwaukee School of Engineering, and Timothy Keister, FAIC, CWT, to name a few. The conclusions of all of these studies refute the claims made by these devices, and scientifically prove that they are not an effective substitute for traditional chemical treatment of cooling towers. For example, Mr. Keister, who has examined many installed units writes, "NCD's are not capable of producing the effects claimed in the literature". The cost of this additional equipment can be in the tens-of-thousands of dollars range, depending on the size of the cooling towers. The initial expense of the "green" technology is considerably higher than the tried-and-true chemical treatment program. When all costs are factored in, we believe the traditional chemical water treatment program is more cost effective. Until there is proven, scientific evidence, based upon known chemical and physical science, our position about NCD's remains the same as it has for decades:

- They simply do not work as marketed.
- They are much more expensive than chemical treatment systems.
- The claims made are scientifically unsubstantiated.
- The costs associated with them (initial costs, yearly maintenance fees and repair costs after failure) are far higher than any "green" benefits or cost savings to the buyer.

Further information about these devices is extensively documented by Professor Stephen Lower on the web at <http://www.chem1.com/CQ/magscams.html>. Arc Water Treatment has also developed a position paper on this issue, which may be obtained by contacting us at arc@arcwater.com or 800-832-3260. Arc Water Treatment Company has remained at the cutting edge of the chemical treatment industry for over 44 years. The chemical feeding equipment and chemical formulations currently used in the industry have evolved and are greatly improved to maximize system effectiveness and maintain environmental integrity. Chemical treatment remains the most effective and reliable method to keep your systems free from scale, corrosion and biological fouling. Please talk to one of our experts before investing in any alternative systems.