



# WATER TREATMENT PROGRAM



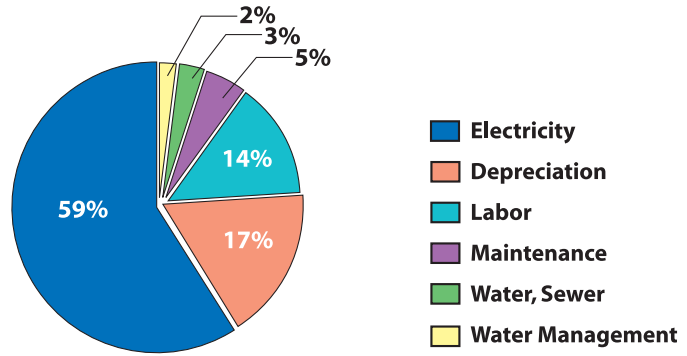
*Care for Work Environments®*

Good water treatment does not cost... it pays!

You may not have given your cooling system much thought lately and that may be costing you more than you think.

Good water treatment leverages one of your smallest operating costs (water treatment) and uses it to save in much larger areas. Electrical consumption, water, labor and maintenance all contribute large sums to the total cost of operating your cooling system.

### Typical Operating Costs - Cooling Systems



An average 100 tons of comfort cooling uses about \$17,000 per season in electric power\*.

Poorly treated cooling systems can cost you a bundle. Not only are you paying for an ineffective program, but your cost of operation may be much higher than it should be.

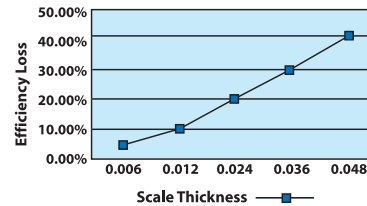


### Common water problems and how they impact your operating costs:

#### • Scale

All waters contain dissolved impurities and if poorly treated will quickly form scale on heat exchange surfaces. Poor heat transfer results in escalating your energy bills. In fact, a mere 1/64" of calcium scale will drive energy consumption up by more than 10%. Additionally, scale can cause accelerated corrosion rates, seriously limiting the useful life of your system.

Efficiency Loss Due to Scale



iting the useful life of your system.

#### • Fouling

Fouling is the buildup of solid material, other than scale, that can clog the system. This includes dirt, sand, algae, fungi, and bacteria. Not only are these contaminants unsightly, they can be downright dangerous. Severely fouled systems harbor organisms that can be dangerous to human health and costly as heat exchange efficiency declines.

The bottom line...your program may be costing you more in utilities, water and system reliability.

### Poor Water Treatment Can...

Cost you in Energy Efficiency

An average 100 ton chiller running 12 hours per day for 6 months will cost an extra \$1,700 per season to operate if just 1/64" scale exists!

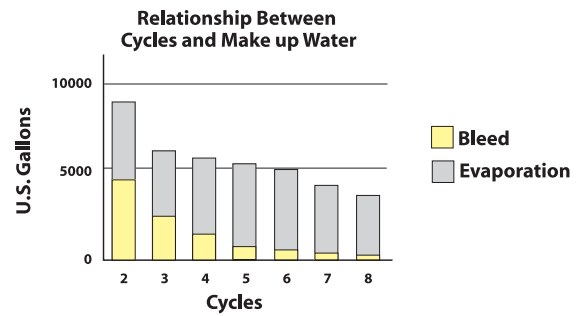


\* Estimates based on 0.94 KW/ton operating cost, 1,800 full load hours and \$0.06 per KWH with a \$12.00 per KW Demand Charge.

• **Corrosion**

Every year billions of dollars are lost to corrosion of metal in the U.S. alone. Your cooling system probably consists of steel and copper. Constant exposure to poorly treated water can quickly degrade system performance, decreases equipment life and add costly maintenance headaches.

Inches of Scale	Energy Increase
0.006	5.3%
0.012	10.8%
0.024	21.5%
0.036	32.2%
0.048	43.0%



• **Savings**

Operating a 100-ton tower at 6 cycles instead of 3 will save just under a half million gallons per year in water.

**F**or years, State Chemical has been providing quality water treatment to small and large cooling systems alike.

After discussing your needs and surveying your cooling system, we will propose a program tailored to your system.

**Super Concentrates for Sustainability**

Most suppliers are using dilute products, fed at high dosages. At State, our super concentrates are mostly NOT water. We packed all the active ingredients into as little water as possible. The result of State's small concentrated packaging:

- Low freight costs
- Easy handling and storage
- No chemical contact
- No drum disposal issues

Our super concentrates contain all the necessary ingredients to control scale and corrosion, all the ingredients your system needs plus our high-tech CoolX™ polymers. CoolX polymers are a new breed of scale controlling polymers that allow for additional water savings through higher cycles of concentration. CoolX will allow you to maximize your system water use while minimizing water lost to bleed-off. In most cases CoolX works so well dangerous acid feed can be eliminated even in high hardness waters such as well water.

**CoolX Polymers Save Water and Energy**

With State CoolX polymers, the calcium and other impurities are captured and prevented from forming scale. State CoolX polymers will capture and hold more impurities, across a broader range of water conditions than any other treatment available. As a result you send less valuable water down the drain. You stop wasting energy to overcome the insulating effect of deposits.

Why State's Program makes Sense



## Closed Loops Need Treatment Too!

Many closed heating and cooling loops go untreated. After several years small leaks may develop and are easy enough to repair. But then catastrophic failures start to emerge as corrosion begins to take a heavy toll. Each year in the US alone over \$276 billion dollars are spent due to corrosions effects.

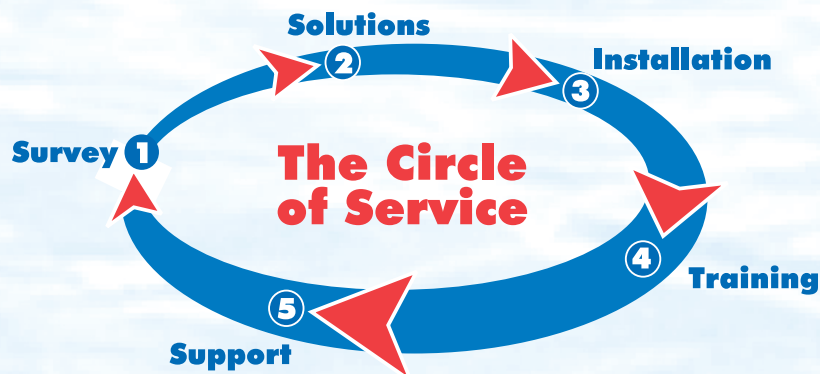
Heating and cooling loops are very simple to treat cost effectively and doing so can head off major expenditures in the future.



The corrosion coupon (right) was installed in an untreated hot water loop for 30 days. The coupon on the left was installed in a treated hot water loop for the same period.

## What Really Sets Us Apart Is Our Complete Operational Service Programs!

Order a complete Water Treatment Program from State and you get turnkey Water Treatment. We supply the feed and control, we install and commission it, we do the testing, we replace the chemical. Your headaches are gone. We do it all. *Our programs save. How much can we save you?*



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