

WHY WATER TREATMENT IS COST EFFECTIVE?

In the current economic pressure-cooker, many properties are reviewing their operating costs for areas that would seem less essential during tight times, or may not be justified under close cost/benefit analysis. Plus the emphasis on “going green” has everyone reviewing the use of utilities (electric, gas and water) for areas where reductions can be achieved, often justified as another cost-cutting action. One maintenance service that stands up to close cost analysis is HVAC water -treatment. Whether it is treating the water in closed loop systems or in cooling towers, a good property manager or engineer knows that an effective water treatment program is money well spent. For closed loop systems, which usually require fewer chemicals once a system is commissioned, one might think that this is an area that would hit the cost-cutting block. Yet the small fee to have an independent expert verify regularly that the systems are well maintained, and continue to stay corrosion free, is well worth the peace of mind. If for no other reason, it allows building management to “sleep well” knowing their to explain to the owners that many thousands of dollars must be spent to replace internal piping before its expected life-time, simply because pipes became corroded and failed due to saving a few pennies on critical water treatment over the years. More importantly are the hundreds or thousands of dollars saved through regular, professional chemical treatment of the water in the cooling tower. These well-spent dollars (only a few hundred a month in most cases) easily offset an annual expense of having to acid-clean condenser tubes or heat exchangers, which, without proper treatment, are the critical mechanical components that develop layers of calcium scale. A scaled heat exchange surface is much less energy-efficient, greatly reducing heat transfer and causing a huge increase in electrical costs. Similarly, a proper water treatment program will reduce corrosion in your HVAC systems, greatly extending the service life of both your equipment and building piping. The relatively few dollars spent on chemical treatment pays huge dividends if you can avoid costly repairs for many years.

Another consideration when looking at the cooling tower water treatment program, is whether to continue treating to prevent Legionnaires disease. Cooling towers are known incubators of Legionella bacteria, and if an outbreak should occur, owners of a tower without treatment would be subject to lawsuits. The protection against this situation is to maintain professional water treatment services, and include regular testing for Legionella to protect building occupants and defend against potential litigation in case of an outbreak. A good, comprehensive water treatment program keeps your HVAC systems clean and free from scale, corrosion and biological fouling, allowing you to maximize your system efficiency and keep your energy costs at a minimum. So avoid reducing the water treatment budget to keep from being “penny-wise, but pound foolish”.