



WHY LOOK AFTER YOUR COOLING TOWER SYSTEM?

Apart from the obvious, or then again is it obvious, cooling towers play an important role in cooling buildings, processes, and in a host of other uses. Many owners, maintenance managers, engineers don't place a high enough value on their cooling towers either through ignorance or general apathy. Sometimes the easy way is to simply hand it over to the water treatment or air conditioning maintenance companies to look after and expect that they will do the right thing! But do they?

Who is your water treatment company? Who in that company is looking after your tower or towers? What type of experience, qualifications, and knowledge do they possess? How did you choose that company to look after your towers, was it on price or did they investigate, prepare and offer a tailor made programme in detail showing what they will do for you to protect and maintain your system to maximise performance, minimise corrosion and limit your exposure to bacterial outbreaks such as Legionella? Why should you accept a "me too" service, one that is generic and covers only the basics?

In today's marketplace the norm has become to accept and trust the treatment supplier to do the right thing but do they? Is it a case that most people no longer see a difference in what they all offer, and have broken it down to; if they are all the same then whoever has the lowest price will do? In many instances this seems to be the way it is. And if you do have problems, blame the previous supplier, it has to be them because we couldn't have done this to your system.

System corrosion is a common occurrence and so many allow either the treatment supplier to do their own monitoring or don't bother monitoring at all. Then we can look at equipment installed to dose relevant chemical treatments, it is either poorly maintained or not properly understood by the treatment company. And if they didn't sell it to you well then you should look at replacing it and putting in one that they recommend because they understand it better, because it's a new and improved system, or they can't be bothered to fix what is already there and it's easier for them to replace it. Sometimes it really means that they have allowed the system to deteriorate and they want to sell you something that they make money on.

Bacterial control is another one of those areas which depends on equipment working properly, the system working correctly and reducing or eliminating water losses, the correct amount of biocide being dosed into the system long enough and strong enough to achieve a "kill" and the use of the right biocides. Too often the treatment supplier or service personnel take an educated guess at the system volumes and dose accordingly without really trying to find out the true system volumes. Then again we come back to corrosion in your system, many engineers and even water treatment suppliers don't understand that system corrosion can contribute to the growth of Legionella as iron is an essential nutrient for it. And poor bacterial control can significantly impact on system corrosion.

Water treatment on your cooling tower system isn't that difficult but it does require a little information and knowledge before you decide how it should be managed to achieve the best results. Minimise corrosion, control scale, and deposition, maintain the correct concentration of water

chemicals, and cycles, add the recommended level of microbiocides to manage and control Legionella and Total Bacteria Counts, and, most importantly use an independent consultant business to “keep the bastards honest”.

Before introducing a new treatment supplier inspect your heat exchanger equipment and pipework, take pictures, and note any problems. Document current condition of the cooling towers and dosing equipment and make sure that you put into place an independent “policeman” to help you with corrosion monitoring and bacterial sampling and testing. Have them independently check that the corrosion rates are within the proper limits and that the bacteria and Legionella are kept under control by a regular sampling and testing regime. This may not guarantee that you have the best water treatment programme but it will see that you are ensuring that the pipework and heat exchanger equipment will see out its recommended life and that your exposure to risk from Legionella is minimised.