

Avoid Hostile Environments When Installing Water Conditioning Appliances

By Gary Battenberg

For many years, I have been brought in to evaluate water conditioning installations to ascertain the root cause of poor performance or premature failure of the treatment product(s), ranging from a simple cartridge sediment filter to complex systems. In many cases, I have attributed the primary reason for equipment failure to 'hostile environmental conditions.'

Without a doubt, the most troublesome exposure areas in North America are the South Atlantic, Gulf Coast and the American Southwest regions. The year-round good weather may give the dealer and/or the installer a false sense security because of the 'friendly conditions' that would seem to indicate that installing the equipment outside without benefit of shelter is okay.

Since it doesn't freeze (or freezing temperatures don't last long) measures to protect customers' water treatment equipment from damage caused by environmental conditions is often not warranted. They feel it is fine to install the equipment outside in an unprotected environment.

How many sales do these dealers get because they are replacing equipment that died a premature death from exposure?

In a few years, a competitor will get a sale because the previous dealer followed in the footsteps of the dealer before.

It is a vicious cycle that can and should end with you. While climate and topography may encourage unprotected outside installations, this practice should be avoided at all times due to exposure concerns.

Sunlight exposure

Direct sunlight is extremely destructive to plastic materials. Even when the manufacturer indicates that their products are produced with UV inhibitors, this should not be construed as a green light to avoid protecting the equipment from hostile environments.

A good example of this is the brown burnt area on the plastic piping exposed to direct sunlight. Some house paint applied here is good step in protecting this part of the installation.

Poly tubing, plastic clips and other plastic piping and installation materials lose their elasticity after continuous short-term exposure and they crack or break. Examples of this are brine tubing, dosing pump suction and discharge tubing, UV bleed lines, control valve locking clips and the like.

Weather exposure

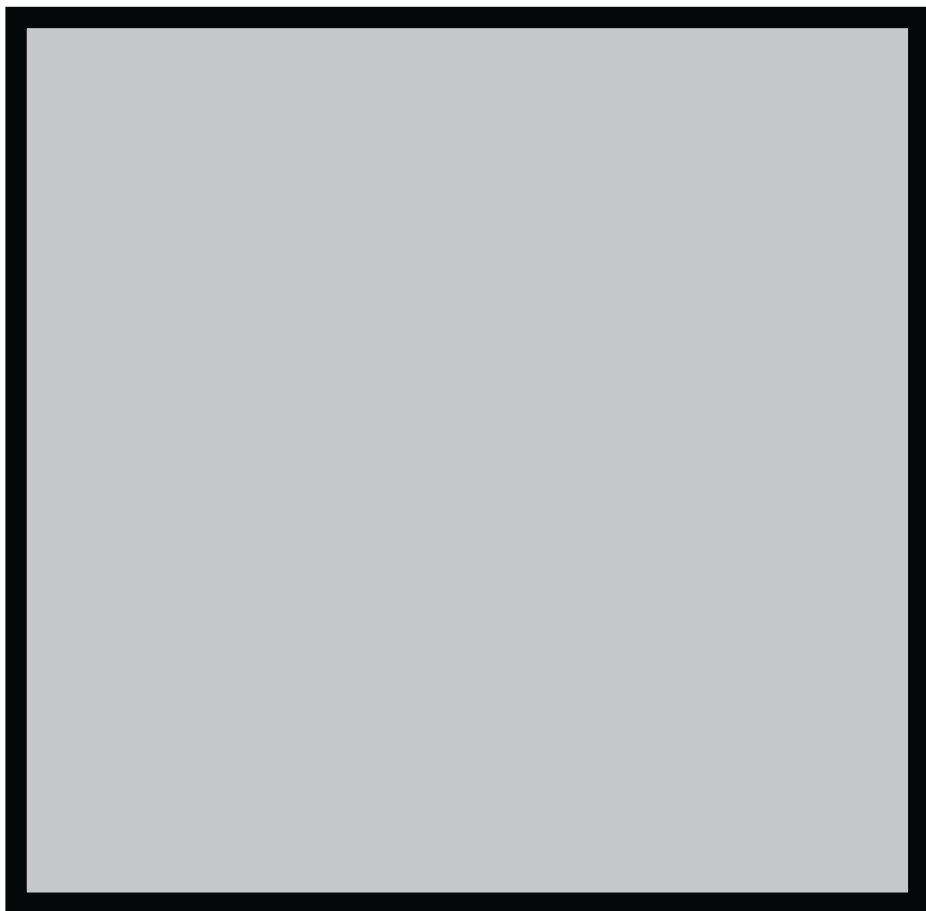
High humidity, dust, rain and wind are all problematic. Water conditioning equipment is not rated for outside conditions that require 'wash down' capability.

Even products with 'environmental' enclosures and back-plates are not entirely resistant to hostile conditions. Small electrical components such as micro switches, solenoid terminals and wire nut connections may prematurely fail because of hostile conditions.

Varmint exposure

Insects, snakes and rodents find their way into equipment enclosures because they provide compact, stable homes that protect them from predators. The heat from the drive motor and the frequencies from the electronics are inviting to these intruders.

Steps should be taken to reduce and/or eliminate these open invitations. Insecticides are available at most garden



centers that are very good deterrents to crawling bugs looking for a home in the control valve.

These insecticides create a barrier they won't cross and, therefore, cannot climb up the sides of the conditioners, cabinets and brine tanks. Always follow manufacturers' instructions when using these types of insecticide products, especially where children and pets are concerned.

Caution should be used here especially with regard to cabinet-style models where brine cabinets also house the media tank. Do not use any chemical pesticide, mothballs, ant buttons or other types of poison under the cover to protect against varmints because of potential contamination of the brine solution. You could unintentionally poison your customers' water and be the target of legal action as a result of unintended consequences.

Shelter

But, that is only part of the solution. If equipment is to be installed outside, then consideration must be given to providing a shelter for the equipment.

One of the easiest, most cost-effective methods is readily available in the aforementioned markets. Many homes have a screened patio, screened windows, garage door drops and even screened pool enclosures.

This screen material diffuses sunlight and maintains reduced temperatures within the confines of the enclosure while still allowing air movement for ventilation. The cover material for the porch or patio is specially made to reflect heat from the sun to keep it from radiating through to shaded areas.

Properly built and set up, these screen closures will ensure a significant reduction in unscheduled service calls and customer aggravation. Contact those companies that specialize in this kind of work and ask them to quote custom enclosure kits to your specification that can quickly be set up by installers.

Tank challenges

An enclosure will protect pressure tanks from problems associated with direct sunlight on steel tanks. Place a strip thermometer on a steel tank and you will be surprised when you see temperatures of 130°F (54°C) or more. This is why manganese greensand iron filters fail in these regions.

The maximum water temperature (and ambient temperature) for greensand is 80 to 85°F (27 to 30°C). Imagine what is going on with the water in that pressure tank while the homeowner is at work.

Plastic pressure tanks suffer even worse degradation because sunlight weakens the glass fibers, making them brittle and giving them that 'fuzzy' look after a season or two. It is only a matter of time before plastic tanks fail and customers will need an emergency tank installation to maintain water service for their home. Additionally, the extreme heat that water is exposed to may contribute to some transient odor problems that seem to come and go with the seasons.

Warranty language

Consider the warranty language of any of the water conditioning manufacturers and you will find that they consider this

kind of degradation as neglect, unreasonable use, misuse, abuse, secondary and consequential damages and so on and so forth. Additionally, setting yourself apart from the pack will foster a strong loyalty to your company because you 'don't do what all of the others continue to do.'

An important issue here is that while this does constitute an additional cost of doing business, it should be a part of a complete installation. Don't look at it as an additional expense, but rather as an investment in the health of your company and the loyalty of your customer base.

Your customers will know this is an integral part of how you conduct your business and also lets them know what it takes to do business with you. More important is the fact that you are not exposing your service technicians and customers to possible harm from snake and spider bites.

Quality of workmanship and protection of equipment in outside installations will very quickly pay off with happy customers who are more likely to refer friends and relatives to you and your company. You are more likely to get the work because of your conscientious effort to protect their investment in water treatment.

About the author

◆ Gary Battenberg is with Hague Quality Water International located near Columbus, OH, holding the position of Technical Director since 1997. He has over 26 years experience in the field of domestic, commercial and high-purity water treatment processes. Battenberg has worked in the areas of sales, service, design and manufacturing, utilizing filtration, ion exchange, UV sterilization, reverse osmosis and ozone technologies. Contact him at gbattenb@haguewater.com.

VISIT
www.wcponline.com

