MYTHS, MAINTENANCE & PROBLEMS ABOUT SALT WATER POOLS

Since salt water pools produce chlorine, the sanitizing effectiveness of the system is affected by sunlight, rainfall, bather load, phosphate levels, temperature and calcium buildup. Changes in any of these conditions can lead to an algae bloom and require additional ‘shocking’ of the water.

Backwashing salt water pools can sterilize soil and kill plants. Many municipalities prohibit salt water backwashing in the U.S. and Australia (where salt water systems originate from).

There is also a growing body of evidence that salt – through chloride damage – accelerates the destruction of stone and cement. The electrolysis process has been cited as causing rapid deterioration of metals in your pool, like heater parts, ladders, handrails, light rings, etc…

Salt Chlorine Generators - Turning Your Pool into a Chlorine and Caustic Chemical Factory!

The reasons why salt systems are coming under a lot of criticism lately: the expensive high amperage process of creating pure concentrated chlorine in its acid form in a pool's return line has come under critical review quite a bit in recent studies. There are a lot of misconceptions and misinformation in the marketing of these corrosive systems.

Let's establish the basic facts of operating this type of chlorine generator. First, very high concentrations of corrosive salt are added to water. (Usually 40,000 times more chemical product than healthy alternative systems). The potential for scaling, staining, corrosion to heaters, pumps, pool equipment and surfaces is a serious problem. The reaction necessary to break down the salt into hypochlorous acid chlorine and caustic soda uses expensive amounts of electricity and creates a breakdown of electrodes (replacement frequently costing upwards of half original equipment cost!) Caustic soda (NaOH) or sodium hydroxide is the other byproduct of this chemical manufacturing process. This caustic chemical is the main ingredient in Drano or Liquid Plumber, etc that is used to breakdown hair clogs in plumbing in sinks and drains. These chemicals breakdown fats, skin cells, damage hair, swimsuits etc… Add to this the drying salt water and ALL the well publicized problems of toxic chlorine and its byproducts and you clearly understand some of the criticisms brought up recently.

The support of this technology is problematic and requires dosing of shock, use of chlorine stabilizer – cyanuric acid – (also causing additional damage to pool equipment), algaecide, clarifier and sequestering/chelating agents. All expensive, time consuming maintenance, testing etc…associated with any standard chemical program. Draining of salt water to drains, lawns, plants and the environment only add to the above problem. Safe, economical automatic and healthy options are widely available that are far more effective and avoid all of the toxicity, corrosion and expense.

Pool & Spa News: August 7, 2006 article: “Understand that salt is corrosive. Salt likes to remove ions and can take zinc away from galvanized steel. And this type of chlorine is five times harder on plaster than regular chlorine. I don’t like them in vinyl pools either. I build galvanized steel vinyl pools and if there is a leak around a gasket or a little hole somewhere in the lining and the water gets through, it will eat the hell out of the wall. And you won’t even know it is happening.”

Hose down potentially corrosive parts: Steps should be taken to protect ancillary equipment as well. For instance, if the pool has an automatic cover, Chandler recommends hosing off its tracks and other parts each time it is about to be closed back up. “We sell a lot of covers with aluminum parts. If you have a salt chlorinator, we recommend washing down all the aluminum and metal parts on the cover and around the pool,” he says.

Questions Arise About Salt Chlorine Generators By Rebecca Robledo - Pool & Spa News: December 26, 2006

As sales of salt chlorine generators continue to grow exponentially, some builders report problems with stone copings on these pools and suspect that the salt is causing them to degrade.

Pool construction firms in Texas seem particularly vulnerable to this deterioration of the stone. They see it happening mostly on softer types of rock, such as limestone. But builders outside of Texas are witnessing the condition as well.

Buzz Ghiz, president of Paddock Pool Construction Company, a Scottsdale, Arizona-based Pool and Spa News Top Builder, said that his company noticed flaking on coping, decks and even rock waterfalls. “We found over the past three to five years that we’re having warranty issues on items such as decking, rock waterfalls and some equipment”, he said. “But most of the time, the problem is outside of the pool. We tracked it back to (the fact that) all these pools have salt chlorinators.”

While he doesn’t offer an exact figure, he said his company has had to pay to repair the problems, including the replacement of coping and, in a few cases, even entire decks.

“The best thing I could tell is that the water penetrates into the stone and then somehow expands and gives you a look similar to a freeze/thaw, like a spalling situation, where the stone just shatters on the top,” Wood said.

Some builders theorize that when water splashes out of the pool, it then evaporates, leaving salt behind. As that salt builds up, it can damage certain types of rock.

Builders are considering how to move forward. Currently, Wood explains to his clients what he's seen and tells them that they will need to reseal the stone about every three months. He's also drafting a letter that will discuss the problem in detail.

Giz has decided not to promote the product. If a customer requests a salt chlorine generator, they have to sign a disclaimer, he said.

Another builder, Bob Anderson, owner of Custom Design Pools in Friendswood, Texas, uses quartzite, a harder stone that looks like flagstone. He is also looking for sealers that will last longer than the six to eight months that he usually sees.

SALT CHLORINATOR DISCLAIMER

In making the decision to purchase a salt chlorination system, it is necessary to consider certain facts. First, salt does not eliminate the need for chlorine. The salt cell actually ionizes the salt to produce chlorine. This is accomplished by maintaining the appropriate salt levels and by running the pool filter for the necessary amount of time based on the gallons of water in your pool. Second, the cell must be maintained and cleaned regularly, as recommended by the manufacturer to ensure optimum performance of the system. Third, the salt system does not eliminate the need for other chemicals. It is still very important to monitor all chemical levels and to maintain a pH reading between 7.2 and 7.6.

Proper water chemistry keeps your water clean and clear, and it reduces staining, scaling, and etching of the interior surface of your pool. Any questions regarding water chemistry in conjunction with your salt system can be answered through any of our retail stores or by attending one of our monthly "Pool Schools."

In addition to considering the maintenance factors of a salt chlorinator, it is also important to realize that **salt is a corrosive mineral**. As such, use of a salt system may **lead to the deterioration of certain materials if salt levels exceed the manufacturer's limits**. This includes, but is not limited to, natural stone (including flagstone, cultured stone, marbella, travertine, etc.), **concrete** (including Kool Deck, exposed aggregate, etc.), clay tile, grout, some metals, and some equipment components. **Any damage to the pool and/or equipment resulting from salt is not covered under warranty**.

If you are not comfortable with these facts, we have several other water management options you may want to consider. If you have any questions or concerns regarding your purchase of a salt system, please discuss these with your salesman before signing this disclaimer.

I have read and understand the above information regarding salt chlorination systems. I am aware that there is required maintenance for the salt system to operate properly, as well as maintenance of salt levels, other chemicals, and pH balance. I am also aware of the **corrosive properties of salt, the potential damage/deterioration that may occur as a result of the use of salt in my pool, and that such damage/deterioration is not covered under warranty**.

Corrosion blamed on salt-water pools - WFAA.com: Dallas Fort Worth, 08:48 AM CDT on Saturday, May 12, 2007

The backyard pool is one of the true joys of a North Texas summer. And as many as 65 percent of new pools are built with salt-water filtration systems. But a growing number of families say the salt is corroding parts of their prized pools. Steve Riley's company cleans and maintains pools in Dallas. He says he's finding rusted and deteriorated stainless steel components in the growing number of pools in North Texas with salt-water filtration systems. Proponents say salt pools are better than traditional chlorine. They say it leaves the skin feeling soft and reduces eye irritation. But Riley says many pool cleaners believe there's a problem with salt and he's certain it's causing problems for his clients.

Like Sharon Collazo. She says the **salt water is eating away at the decorative limestone surrounding her pool**. Repairs could cost thousands. "It's like eating little pieces of it away," said Collazo. The decorative stone on Amy Johnson's pool is also pocking and discoloring. She's removed her saltwater filter but also had to replace a $1,000 heater.

"We had no idea this was a potential disadvantage of owning it," said Johnson.

Phil McEwen's built hundreds of pools in North Texas. And while some builders almost exclusively install the popular salt systems, McEwen is one of a growing number of pool builders who will no longer will, unless a customer signs a release.

"We anticipate there will be issues later on caused by the salt system. That as a builder we can't be held responsible for if we explain to them the issues we have with salt," McEwen said.

But, both Amy Johnson and Sharon Collazo say they were never told about any potential problems with salt. You always should know everything you can know when you're investing this kind of money in your home," said Collazo.

Pool cleaner Steve Riley expects to see more and more deteriorated parts and decorative stone. And says makers of salt water systems need to be upfront about potential problems that can be expensive to fix.

By DAVID SCHECHTER / WFAA-TV

Saltwater Banned in Swimming Pools
Daily News

SANTA CLARITA - Swimming pools that utilize salt rather than chlorine were banned Wednesday in Santa Clarita, where concern is growing that salts are polluting freshwater supplies. The board of the Los Angeles County Sanitation District for Santa Clarita adopted the new ordinance, believed to be the first of its kind in the United States. The move outlaws both new and existing salt water pools that feed local sewers.

Salt Water Pool Ordinance Sanitation Districts of Los Angeles County.

On November 9, 2005, an ordinance was enacted in the Santa Clarita Valley making it illegal for swimming pools connected to the sewer system to be converted to saltwater pools. The ordinance also made it illegal for both new and existing saltwater pools to be connected to the sewer system.

Saltwater Pool Ordinance

- New and existing saltwater pool connections to the sewer system are prohibited. It is also illegal to convert swimming pools connected to the sewer system to saltwater pools.
- A violation of the ordinance banning saltwater pools is a misdemeanor punishable by fines up to $1,000 and/or imprisonment not to exceed 30 days.
- The ordinance aims to reduce the amount of chloride going into the Santa Clara River.

Water facts: Salinity

- Salinity is the build-up of salt in soil and water
- The worst-affected regions are in the Murray-Darling Basin
- Eighty wetlands already suffer from salinity
- It is predicted that 130 wetlands will be affected by 2050
- Salinity puts animal and plant species at risk
- Salinity also puts drinking water at risk
- A number of government and community organizations have developed salinity action plans

Salinity is the build-up of salt in soil and water. It occurs naturally but in many parts of Australia, human activities such as irrigation have accelerated the process. Farms, irrigation areas, wetlands, rivers, drinking water and infrastructure are all affected.

Across Australia, 80 wetlands are already suffering the effects of salinity. The number is predicted to rise to 130 by the year 2050. The build-up of salts puts many species of plants and animals at risk, and will eventually reduce biodiversity in the affected regions.

Drinking water supplies, particularly in South Australia and New South Wales, are also under threat from salinity. For example, Adelaide's drinking water is predicted to exceed World Health Organisation guidelines for salinity on two days out of five by the year 2020 if nothing is done to control salinity in the River Murray.

Salinity also increases the cost of treating water for drinking, reduces the availability of water for irrigation, and renders farmland useless, costing the economy millions each year.

The Federal Government launched the $1.4 billion National Action Plan on Salinity and Water Quality. The plan takes a regional approach and is backed up by advances in salinity mapping and cropping systems. There are also strategies in place to deal with salinity in individual river systems and catchments. However, it will take years for improvements in water quality to be measured.