

Here's [@Peggie Hall HeadMistress](#) 's recipe:

"Recommission the system at least annually

This is all it takes to keep onboard water safe, and tasting/smelling as good as any that comes out of faucets on land: Fresh water system problems--foul odor or taste--are typically caused by allowing water to stagnate in the system. Although most people think only in terms of the tank, the plumbing is actually the source of most foul water, because the molds, mildew, fungi and bacteria which cause it thrive in damp dark places, not under water. Many people--and even some boat manufacturers--believe that keeping the tanks empty reduce the problem, but an empty water tank only provides another damp dark home for those "critters." There are all kinds of products sold that claim to keep onboard water fresh, but all that's really necessary is an annual or in especially warm climates, semi-annual recommissioning of the entire system--tank and plumbing. The following recommendations conform to section 10.8 in the A-1192 code covering electrical, plumbing, and heating of recreational vehicles. The solution is approved and recommended by competent health officials. It may be used in a new system a used one that has not been used for a period of time, or one that may have been contaminated. Before beginning, turn off hot water heater at the breaker; do not turn it on again until the entire recommissioning is complete. Ice makers should be left running to allow cleaning out of the water feed line; however the first two buckets of ice--the bucket generated during recommissioning and the first bucketful afterward--should be discarded.

1. Prepare a chlorine solution using one gallon of water and 1/2 cup (4 oz) Clorox or Purex household bleach (5% sodium Hypochlorite solution ). With tank empty, pour chlorine solution into tank. Use one gallon of solution for each 5 gallons of tank capacity.
2. Complete filling of tank with fresh water. Open each faucet and drain cock until air has been released and the entire system is filled. Do not turn off the pump; it must remain on to keep the system pressurized and the solution in the lines
3. Allow to stand for at least three hours, but no longer than 24 hours.
4. Drain through every faucet on the boat (and if you haven't done this in a while, it's a good idea to remove any diffusion screens from the faucets, because what's likely to come out will clog them). Fill the tank again with fresh water only, drain again through every faucet on the boat.
5. To remove excess chlorine taste or odor which might remain, prepare a solution of one quart white vinegar to five gallons water and allow this solution to agitate in tank for several days by vehicle motion.
6. Drain tank again through every faucet, and flush the lines again by fill the tank 1/4-1/2 full and again flushing with potable water.

People have expressed concern about using this method to recommission aluminum tanks. While bleach (chlorine) IS corrosive, it's effects are are cumulative. So the effect

of an annual or semi-annual "shock treatment" is negligible compared to the cumulative effect of holding chlorinated city water in the tank for years. Nevertheless, it's a good idea to mix the total amount of bleach in a few gallons of water before putting it into either a stainless or aluminum tank. People have also expressed concern about the potential damage to rubber and neoprene water pump parts. Again—the cumulative effect of carrying chlorinated water is far more damaging over time than the occasional "shock treatment." And it's that cumulative effect that makes it a VERY bad idea to add a little bleach to each fill. Not only does it damage the system, but unless you add enough to make your water taste and smell like a laundry, it's not enough to do any good. Even if it were, any "purifying" properties in chlorine evaporate within 24 hours, leaving behind only the corrosive properties. An annual or semi-annual recommissioning according to the above directions is all that should be necessary to keep your water tasting and smelling as good as anything that comes out of any faucet on land. If you need to improve on that, install a water filter. Just remember that a filter is not a substitute for cleaning out the system, and that filters require regular inspection and cleaning or replacement. To keep the water system cleaner longer, use your fresh water...keep water flowing through system. The molds, fungi, and bacteria only start to grow in hoses that aren't being used. Before filling the tank each time, always let the dock water run for at least 15 minutes first...the same critters that like the lines on your boat LOVE the dock supply line and your hose that sit in the warm sun, and you certainly don't want to transfer water that's been sitting in the dock supply line to your boat's system. So let the water run long enough to flush out all the water that's been standing in them so that what goes into your boat is coming straight from the water main. Finally, while the molds, fungi and bacteria in onboard water systems here in the US may not be pleasant, we're dealing only with aesthetics...water purity isn't an issue here—or in most developed nations...the water supply has already been purified (unless you're using well-water). However, when cruising out of the country, it's a good idea to know what you're putting in your tanks...and if you're in any doubt, boil all water that's to be drunk or used to wash dishes, and/or treat each tankful to purify. It's even more important in these areas to let the water run before putting it in the tank, because any harmful bacteria will REALLY proliferate in water hoses left sitting on the dock."