## Spas for Schmoes

Like many Coloradans living above the plains, I have a hot tub. It sort of came with the house. When I was visiting the place with my realtor, we spotted the owner's photo of the hot tub being swung over the roof by a construction crane, to its resting place on a deck adjoining the master bedroom. I remembered this during negotiations over the sales price. After a bit of haggling we were close but not quite there. So figuring that the owner didn't really want to pay to have the damn tub hauled out of there, I offered to buy if she left it there. She did and I did.

For a few years I tolerated the thing, but didn't like the municipal swimming pool smell of chlorine after it mixes with your sweat and other stuff that migrates from your body into the water. Worse, I think it aggravated my asthma. But my wife occasionally liked to yuck it up in there with her friends, drinking my wine and having a jolly good time on my energy bill. I had her drain the thing to save energy costs, but forgot to refill it before the next winter came with its water-freezing weather. Big mistake.

As you have likely surmised, residual water froze and cracked the PVC pipes. This was confirmed by two guys sent by the spa showroom, who tipped it on its side, pointed to a long nasty crack in the plastic, and offered to fix it for a mere \$500 plus plastic parts. Figuring that it would cost about that much just to have the heavy mother hauled off the premises, I agreed to this felony theft, and called my friendly neighbor-the-spa-authority to chat about chemicals. He described a chemical regimen that worked without chlorine, bromine, or any other stinking -ine. A trip to "Mr. Pool" in Boulder with my tired credit card resulted in my embrace of the Nature<sup>2 TM</sup> maintenance system. This consists of a silver-coated gizmo that sits in the spa filter, and a large, overpriced bottle of potassium monopersulfate, a.k.a. Dupont's Oxone<sup>TM</sup>. Once you add a garden-variety spa chemical to adjust the water's pH to a level that won't wreck your skin, you use a (hopefully) one-time dose of chlorine to "activate" the silver and killoff any initial little nasties. Then you stick the filter gizmo in place, add the Oxone, and hope the silver ions and/or the Oxone will kill off any *Pseudomonas Aeruginosa* or other harmful microbes that might otherwise thrive in there.

So after a vigorous morning workout at the Gym, I showered, went home, and hopped into the tub for a relaxing soak under the bluest of skies. No smell, no wheezing, and no disease; so far....