

Sent: Wednesday, March 18, 2009 10:41 AM

Subject: FORUM Q & A / TECK BANK: ZERO BRINE - WASTE DISCHARGE RO...OH NO, NOT AGAIN !!!

Importance: High

Dear Aquathin Dealer OnLine;

[Aquathin2605_000.pdf](#)

In the recent industry trade journal issues, Watts Water, a systems and components distributor, has resurrected "RO zero waste technology"...again (see attached)...which seems to occur every 12-15 years. Back in the early 1980's a Nevada company failed at it and so did another U.S. company a few years later. Aquathin tested both designs to see the viability of a zero brine-to-drain setup and promptly learned why it is not a technology in the true sense of the term. What it is, is flawed thinking and improper plumbing resulting in product failure...and worse, as follows:

First, in order to understand the "why" someone would design such a product you must first understand that their flawed thinking results from their strong intent to capitalize on "green" by stating "zero waste RO". This is bad for the industry because it sends a grossly negligent and erroneous message that RO creates wasting of water. There is NO WASTE in RO technology. RO brine water concentrate is directed to the drain and captured in sewer systems, treated and re-introduced downstream, or returned to drain fields (if source is borehole / well water) for natural filtration...unlike cooling towers, fountains, irrigation losing hundreds and thousands of gallons to evaporation each day. Disclaimer here: the only wasted water occurs in a poorly designed RO who has a ridiculous brine to product ratio...and still the excess water of any poorly designed system again is captured in the sewer or drain field. Therefore, RO also stands for Recycling Operation.

Sooooooooooooooooooooo, the zero waste sales rep inappropriately states, "my all new zero waste RO will not send 1 drop of water to your drain". But how can this be...we all know that because it's called Reverse Osmosis there must be 3 directions of flow...the source water inlet...the pure RO product...and the brine drain flow containing the concentrated contaminates...right? Right! Remember the 2 companies mentioned above that died?...well the first one's setup directed the brine back to the kitchen faucet. What was supposed to happen is every time the homeowner opened the kitchen sink faucet, that faucet would release the built up concentrated contaminates. BUT, as you all learned at Aquathin University and see all too often in the field, when the brine of an ordinary RO is clogged / interrupted, the TDS in the product water radically increases and often resulting in a plaqued up membrane. The company producing this brine-to-kitchen sink faucet failed because homeowners daily living would never abnormally open the faucets enough or long enough. Oh, and think

about this...imagine Mom opening that kitchen sink faucet to wash her family's foods in concentrated contaminates, or bathing a baby or pet in concentrated contaminates...including higher counts of giardia, crypto, nitrates, heavy metals, radionuclides. Not only is this bad...but it is illegal. And that second company mentioned above that failed thought they had a better setup by directing the brine line to a toilet. Their thinking was toilets get used more than kitchen faucets. NOT!

Now this Watts zero is a doozy. They take the brine line and pump up the pressure (see the small pump at side in the attachment) and send it to the hot water heater. Their thinking is that they can increase the volume of water in the hot water heater enough between hot water uses that would allow the increased RO concentrate to reduce itself in the system. Here's where this really gets stupid and stupider and stupidest...A) the customer is back to bathing in and inhaling hyper concentrated contaminates which is not aesthetically appealing, unhealthy and illegal...and B) making that type of tubing installation from the kitchen to the hot water heater's utility room would add 4-5 hours or more time, which equals more costly...and remember, this water line is under chronic pressure exceeding 100psi...and C) the RO membrane still remains compromised resulting in high TDS and accelerated membrane failure. Maybe that's why you don't read any efficiency claims in the attached advert.

Be sure to review this with your Sales Force and Tech Team Mates...and Hammer this home to your prospective Customers thinking about this defective product that can potentially make them ill. If that prospective Customer goes with the "zero" guy, you've done a disservice to your Customer, to yourself and to your family.

An Educated Force is an Effective Force !

I LOVE MY AQUATHIN ! AND REMEMBER, THE NEXT BEST THING TO OWNING AN AQUATHIN IS RECOMMENDING ONE TO A FRIEND !!

Let me know what you AquathinK !

Warmest regards to all...as well, your comments are always welcome and very much appreciated.

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Alfred J. Lipshultz
President & CEO

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