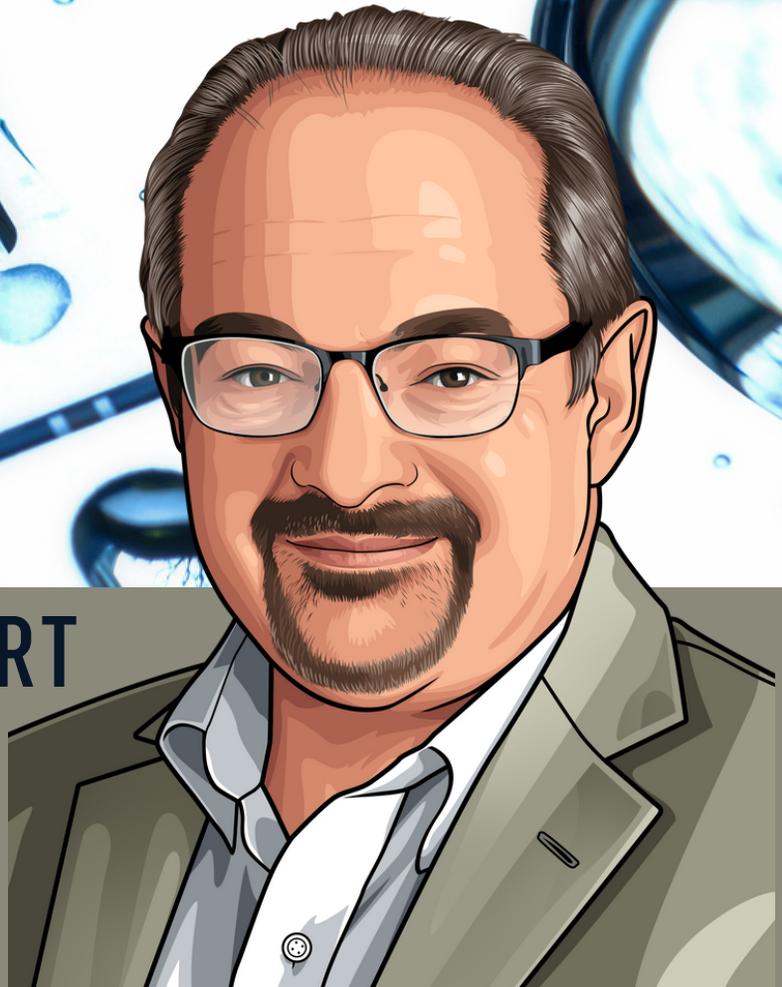


WATER QUALITY DIFFERENCES & THEIR IMPACT ON CLEANING

WATER QUALITY EXPERT

 **BEYOND**
CLEAN



Jonathan Wilder, Ph.D. | Managing Director
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Beyond Clean Water Quality Expert:

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Jonathan Wilder, Ph.D. | Quality Processing Resource Group, LLC

The textbook approach to this (in AAMI TIR34 section 4.2 and AAMI ST79, section 7.6) is to use utility water for every wash phase and use critical water for the final rinse. Many facilities use utility water for all phases. Questions to consider are:

- How good is your utility water?
- Do you have access to critical water and enough of it?
- And others specific to each facility.

If your utility water is on the upper end of the ranges for contaminant content, it should not be used for final rinse and may not clean that well anyway. Being barely compliant is not that different from being non-compliant. It will probably not do a good job rinsing residual detergent and soil, since it has a lot of stuff dissolved in it already.

If you have enough critical water, you should always use it for final rinse. You may need two final rinses if you see a lot of suds in the critical water rinse. This is detergent residue that you are redepositing on the instruments. A second critical water rinse will ensure that you don't bake on detergent residue in the drying phase.

If you don't have enough critical water and your utility water is marginal, you can improve your utility water to make it suitable, but not optimal, for a decent final rinse. How? Analyze it and then treat to limit the major contaminants in the water. Like hardness, using a water softener. Like TOC, using an activated carbon filter. Like iron or manganese, using a green sand filter. The treated water is plumbed to the final rinse inlet of the washer disinfectant or final rinse sink. Then pray for capital for a proper critical water system! See you next month!

Have more water quality questions? Contact Jonathan at: jwilder@qprgllc.com

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Dr. Wilder joined MDT Corporation in 1990 as Staff R&D Scientist, tasked with executing process and product development in sterilization, disinfection and cleaning of reusable medical devices. He started H & W Technology in 1997 and allied with SMP Laboratories from Tübingen, Germany to form Quality Processing Resource Group (QPRG) in 2016. QPRG provides clients with operational, regulatory, and technical consulting in the area of sterile processing. Its services include accreditation readiness audits, technical deep dives into the issues causing wet loads and staining, and 510(k) filing support for manufacturers. He has a Ph.D. in physical chemistry from NYU and an MBA from Rochester Institute of Technology. He is a New Yorker by birth but escaped in 1986 to a postdoctoral fellowship at the Max Planck Institute for Surface Physics, the Fritz Haber Institute, in West Berlin, Germany. He is currently happily living near his children in Philadelphia, PA.

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