



Stand Up & Speak Up

Hardness Reduction Plants Reduce Softening Demand

By Jeff Hill, MWQA Board Member

New hardness reduction plants have been built and are up and running in Pipestone and Morris, and more are expected. Robbinsdale and Marshall are constructing lime hardness reduction plants now. These plants are being driven by the attempt to limit chloride pollution from salt. The majority of chloride pollution is from deicing, of course, but water softener discharge is estimated to be the fourth largest source in Minnesota. Water softener chloride is a particular problem at one specific point – where a municipal sewage plant discharges to a small stream. It is at this point where water softener waste is the most concentrated when it enters a natural setting. The smaller the creek or river, the more likely that the chloride concentration will have an impact.

The challenge to MWQA is large. First, we have to educate ourselves. Most professionals have successfully eliminated time clock softeners in all but a few places. But all technicians and sales representatives do not yet appreciate the urgency of proper sizing, low reserves, low salt doses and accurate hardness settings. Customers are, of course, part of the problem. During service calls, many, if not most, customers will prefer high salt use to any risk of hard water. This is a great testament to the value of soft water, but an education challenge for the service technician.

The challenge to educate city officials, legislators and regulators is larger. The MWQA Chloride Task force has done great work in this area. WQA has put in a lot of resources to help MWQA as well, including a newly released chloride handbook. The good news is that most state officials working in this area have a general recognition of the value of soft water. In a time when carbon dioxide emissions may be the greatest environmental threat, it is easy to see that moderate hardness, producing 1 mil of scale, on a million water heaters, will have a significant carbon impact. And excess cleaning agents do no favors for rivers with reduced chloride.

Educating engineers and local officials who plan new plants is also a challenge. Municipalities installing lime hardness reduction water plants often tell people that six grain water is soft - and insist that they should discard their water softeners. Some softener owners may choose to do so, but the suggestion can be risky if not dangerous in many commercial, industrial and medical applications. And they are often surprised to learn that the existing water softeners in towns with hardness reduction will polish water to a pristine – truly soft – condition with minimal salt use. Marshall, Minnesota has done the best job that we have seen at explaining the situation to their customers. In a Marshall Independent newspaper story, Marshall explains the extra cost of the lower hardness water, explains soft water as 0-1 gpg and the new low hardness water as 6 gpg, and stresses the importance of reducing the salt use of existing softeners.

If you have questions about any of the projects above, contact the MWQA at info@mwqa.com.

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