Code Revision Playbook

Water Quality® ASSOCIATION

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Background:
New or longstanding laws and regulations, no matter how well-intentioned, can be especially difficult to navigate for the drinking water treatment industry. It's crucial for businesses to be proactive and look for opportunities to drive positive change when it comes to laws, regulations and public policy. Uninformed laws and regulations can unintentionally hinder the accessibility of point-of-use (POU) and point-of-entry (POE) technologies, ultimately impacting those who need them most – disadvantaged and vulnerable communities.

It's vital for the water treatment industry to help guide policymakers by educating them on POU and POE technologies and using scientific and technical information to oppose ill-conceived policies and regulations. Softener regulations, for example, are an especially contentious subject at the state and local levels. Looking at the impact industry guidance can have on laws and regulations, it's useful to analyze three unique case studies – *Case Study 1: City of Houston Plumbing Code; Case Study 2: State of Minnesota Plumbing Code; Case Study 3: Big Sky, Montana Wastewater Use Ordinance.*

Playbook Overview:
To properly understand and amend laws, regulations, and ordinances, it's vital to follow a multi-step process called *REACh – Research, Engage, Advocate, and Change*. Below is a brief overview of each step needed to fight ill-conceived policies. Also included is a full synopsis to execute an effective strategy.

1.) **Research**: Research on this subject is two-fold – understanding laws/regulations and identifying the window of opportunity presented in the law and code development process to inform, shape and influence additions, deletions, and modifications.

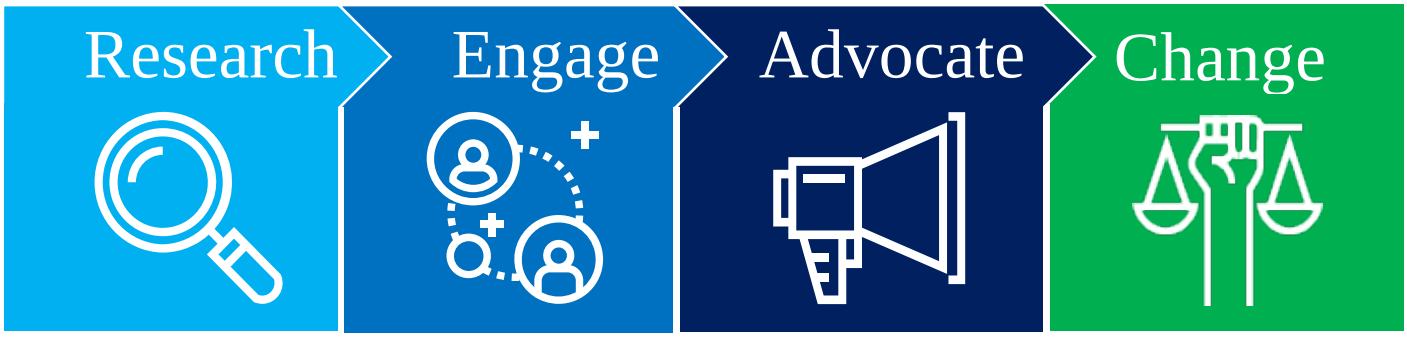
- *Laws & Regulations*: Researching local and state codes, ordinances, and other specific laws will help one fully understand regulatory actions related to the water treatment industry.

- *Gather Technical Information*: Understanding applicable laws and regulations is important, but you must also gather technical information that can be provided to support your efforts in response to a law or regulation. WQA may already have research on these technical issues available so be sure to visit WQA.org or contact govaffairs@wqa.org to see what resources are available.

2.) Engage: Get engaged and engage early. Become active with local and state stakeholders including other organizations in the construction code space and groups that may also be impacted by regulations. Meeting with policymakers and regulatory bodies can also help build relationships and bolster your support when advocating for amendments.

- *Window of Opportunity:* It's important to engage early and avoid a regulation being implemented but if you want to change an existing one, make sure you review the right time/opportunity to engage. Understanding local or state governance structures and verifying the Authorities Having Jurisdiction (AHJ) can help one fully grasp the regulatory process or the legislative process related to code development. This can also highlight a window of opportunity and if the state or municipality has a specific process for amending and adopting codes.

3.) **Advocate:** Educating and guiding policymakers and stakeholders on the issue is vital to effectively changing codes, laws, and regulations. Using scientific and technical information to guide advocacy will also help overcome objections and opposition; remember messaging is important so think of the target audience. Be sure to check out the Advocacy Toolkit and contact govaffairs@wqa.org for more information.



Resources:
The WQA serves as an excellent starting point to gather research, determine the proper tools to engage and become informed on effective methods of advocacy. Below are resources and contact information for WQA staff that may be beneficial in getting you started.

WQA Webpage: https://www.wqa.org/

Advocacy Toolkit: https://wqa.org/advocacy/advocacy-toolkit/

Government Outreach Guide: https://wqa.org/resources/government-outreach-guide/

Chloride Handbook: https://wqa.org/resources/reduction-of-chloride-to-wastewater-treatment-plants/

WQA Main Phone: 630-505-0160

WQA Contacts:

- Jeremy Pollack, Government Affairs Director, jpollack@wqa.org
- Jordan Kari, Government Affairs Manager, jkari@wqa.org
- Eric Yeggy, Technical Affairs Director, eyeggy@wqa.org
- Bryanna Poczatek, Technical Affairs Manager, bpoczatek@wqa.org

Understanding the current regulatory landscape and identifying the window of opportunity is the foundation for successfully changing policy. Thoroughly researching local and state plumbing codes, ordinances, and relevant regulations is vital when finding the right time to initiate changes.

Policies governing the water treatment industry such as those covering water softeners can take many different forms either through local control ordinances, by laws setting salt discharge restrictions, by regulations establishing water efficiency standards, or through restrictive requirements mandated by plumbing code schemes or other non-traditional laws, regulations, and policy and enforcement guidance. While general plumbing codes like the Uniform Plumbing Code (UPC) and International Plumbing Code (IPC) provide a broad framework for plumbing system regulations, state and local jurisdictions have the authority to and do create specialty codes, allowing policymakers to tailor requirements to address unique water quality challenges, environmental considerations, and public health priorities of their jurisdictions related to water softening and other treatment technologies.

Regardless of the legislative or regulatory vehicle used by the AHJ, it's vital to research codes, laws, and regulations to identify specific issues. Additionally, understanding the interpretation and implementation of codes and regulations is pivotal; thorough research will allow a comprehensive understanding of existing laws but will also shed light on the small details that govern regulatory frameworks. This is essential for crafting a well-informed position that aligns with the legal landscape, enabling effective communication, strategic planning, and successful engagement with policymakers and stakeholders.

Moreover, research-driven positions bolster credibility, enhancing the likelihood of productive discussions and sustainable policy amendments that positively impact water softener and other POU/POE regulations.

Takeaways:

Research

- Thoroughly research local and state plumbing codes, ordinances, and relevant regulations.
- Identify existing rules and restrictions that pertain to water treatment, highlighting areas that require adjustment.
- Analyze information on the interpretation and implementation of codes, regulations, and laws.

Gather Technical Information:

- Understand definitions and the reasoning for the provision as they pertain to the specific issue (e.g. Cross-Contamination, Backflow, etc.).
- Identify notable scientific and technical facts to bolster your position (e.g. requiring systems appropriately certified to recognized national standards (NSF/ANSI) will help ensure effective performance and safety).
- Develop data-driven insights that would aid regulators and lawmakers to make informed decisions. By presenting empirical evidence and expert analysis, it becomes easier to identify gaps or areas in need of improvement within existing regulations.

Building a strong foundation of knowledge surrounding codes, laws, and regulations is the first step. This process will subsequently help identify challenges, obstacles, rebuttals, and relevant stakeholders in this space. Active engagement involving stakeholders, building relationships, and fostering collaboration with interested groups is crucial to navigating the complex terrain of policy change and gaining support.

Engagement begins by identifying and reaching out to key stakeholders, including industry representatives, environmental organizations, community members, and other parties impacted by laws, regulations, and ordinances. Identifying the *Window of Opportunity* is important; each municipality, local governing, code compliance, or public health authority, or state may or may not have its own process or cycle for reviewing, amending, and adopting codes and regulations. Research into the AHJ and the comment period is the first step in driving positive change.

Interacting with the local community through volunteering and engaging with affected residents is crucial to fostering relationships. Public awareness campaigns, town hall meetings, and community forums allow for direct communication and input from those whose lives are directly influenced by an ordinance, law, or regulation. Engaging with industry associations, manufacturers, trade groups, and beyond direct stakeholders is crucial for developing a comprehensive understanding of technical aspects and potential impacts of policy changes. Collaborative discussions can lead to feasible solutions; these partnerships can amplify advocacy efforts, provide additional expertise, and foster a holistic approach to policy development.

Takeaways:

Policymaker Interactions

- Establish relationships with local and state policymakers and regulatory bodies. Introduce your business, WQA, and the impact/footprint on the community.
- Schedule meetings to present the case for policy change, emphasizing the need and benefits (e.g. water quality, economical, health-related). Use the WQA Outreach Guide.

Engage

- Identify and establish connections with key stakeholders, including industry associations, construction organizations, environmental groups, and other affected parties to gather insights into their concerns, needs, and priorities.
- Organize meetings to facilitate dialogue and information sharing among stakeholders.

Window of Opportunity

- Research the local and state governance structures, including the entities responsible for creating and amending codes (Authorities Having Jurisdiction – AHJ).
- Determine the specific timeframes or processes for code development and amendments, such as revision cycles and public comment periods on laws and regulations.

Effective advocacy involves presenting a well-informed case and utilizing strategic communication to garner support. Advocacy backed by scientific evidence carries more weight and credibility; relying on scientific and technical information helps counter misinformation or manipulation of data that could be used to support ill-conceived regulations. These methods help mobilize stakeholders and the public, fostering a stronger, fact-based opposition. This also provides a factual basis for evaluating policies, rather than subjective beliefs or ideologies.

Coalition-building is a strategic approach that involves forming alliances among diverse groups or stakeholders. It aims to amplify collective voices, resources, and influence to address common concerns, advocate for change, and achieve shared goals. By uniting various parties, coalition-building fosters collaboration, promotes inclusivity, and enhances the collective impact of advocacy efforts. Blending scientific insights with practical knowledge and teaming up with diverse groups carves a path for meaningful change. However, be open to collaboration and compromise with stakeholders who may have differing viewpoints. Seeking common ground and identifying areas where amendments can be made without sacrificing the overall objectives can be vital in enacting change.

Preconceived beliefs and misinformation, contrary to science or technical standards, may become a roadblock; it's important to advocate with a clear, concise, and accurate approach when educating and engaging with policymakers.

Takeaways:

Advocate

- Mobilize community members, residents, and affected individuals to voice their support for policy amendments.
- Organize public awareness campaigns or letter-writing initiatives to demonstrate broad community backing. Getting interested stakeholders to sign on to a letter expressing support for your position is extremely impactful.

Education & Messaging

- Develop clear, concise, and scientifically backed materials and presentations. Tailor messaging to resonate with different audiences, including policymakers, industry representatives, environmental advocates, and the public.
- Emphasize the evidence-based benefits and nuances of the issue while addressing potential concerns and misconceptions.

Scientific & Technical Information

- Use scientific and technical information to counter objections, provide data-driven responses, and instill confidence in the proposed changes.
- Collaborate with experts to create technical documents and presentations that provide a comprehensive understanding of the issues.

Understanding change and examining this methodology through real-life case studies showcases its effectiveness in action, demonstrating how the strategic use of evidence-based advocacy and coalition-building can drive tangible positive changes in regulatory landscapes.

Politics can also play a role in regulatory processes for reasons other than technical or scientific considerations. These reasons may ultimately influence the adoption, revision, or amendments to policies.

To understand the multi-step framework of *REACh – Research, Engage, Advocate, and Change* in practice, let's review a few real-life unique case-study examples at the local and state levels – *Case Study 1: City of Houston Plumbing Code; Case Study 2: State of Minnesota Plumbing Code; and Case Study 3: Big Sky, Montana Wastewater Use Ordinance*.

Case Study 1: City of Houston – Code Issue

Research: Since 2006, the City of Houston's specialty plumbing code contained a provision mandating a double-check valve assembly for all water softeners to protect against cross-connection. This was a unique measure and redundant safety requirement for water softeners; neither the base UPC nor IPC contained this requirement. Additionally, in the state of Texas, a specific license is required to install and inspect double-check valves, creating an additional cost for the consumer. A critical step was identifying the proper AHJ – the Public Works Department Permitting Center, Cross-Connection Control Group; the proposed codes are also required to be approved by City Council members and specifically, the Transportation, Technology, and Infrastructure (TTI) committee.

> **603.5.18.2 Water Treatment Units.** Reverse osmosis drinking water treatment units shall meet the requirements of the appropriate standards referenced in Table 1701.1. Waste or discharge from reverse osmosis or other types of water treatment units shall enter the drainage system through an airgap. Water supply for water softeners must be protected by a double check valve assembly.

Engagement: To first introduce the issue, WQA and TWQA met with City Council members before meeting with the City of Houston's regulatory Construction Code Modernization Committee (CCMC); This largely was an introduction to the organization, while also highlighting the expertise of the industry and concern with the previous code on softeners. This helped build credibility and a relationship with policy and decision-makers. After the submission of our initial proposed amendment and rejection, we met with the Cross Connection Control staff and were able to further identify the concern on the subject – it was not a backflow issue; it was a cross-connection/hazard concern with softeners and materials. We were also able to find that the state agency, the Texas Commission on Environmental Quality (TCEQ) regulates the City of Houston and helps guide the implementation of their local regulations. Therefore, to help build our case and position we met with TCEQ to provide guidance on cross-connection and hazardous material in relation to residential water softeners. Engagement was also necessary with relevant stakeholders including big box stores like Home Depot, manufacturers of softeners, and local water treatment businesses.

- *Window of Opportunity:* The City of Houston established the CCMC to review process for all construction codes including plumbing codes. During this step, WQA and TWQA were able to

secure voting positions on the CCMC its task forces that were overseeing the amendment process. This gave an opportunity for WQA/TWQA members to weigh in and vote on proposed amendments and have a seat at the table for other discussions.

Advocate: WQA/TWQA was also able to create a letter with 29 supporting organizations signed-on in support of our position; this helped present the scope and importance of the issue to stakeholders.

- *Messaging:* Connecting with your audience is vital, educating stakeholders on WQA and your business is necessary in setting the foundation and credibility of your position. During our engagement with the CCMC, it was necessary to explain the basics of the industry and water softeners. Mention that WQA is a certifying body recognized by ANSI, UPC, IPC, USEPA, etc.; many may be more familiar with these entities so it's a good way of bridging the gap in understanding.

- *Scientific & Technical Information:* To further bolster our position, explaining the benefits of water softening is vital in showing the value these systems play. Using scientific and technical information from WQRF studies we outlined the benefits of water softening – Energy Savings & Appliance Efficiency; Removal of Health-Related Contaminants and Aesthetic Pollutants; a critical component in the treatment chain for water systems, etc. Check the Importance of Soft Water Handout for more information.
  Additionally, reiterating that the model UPC outlines that water softeners are considered non-hazardous and include safety requirements under section 611.1 of the UPC – that is, water softeners like many plumbing components and devices are required to be certified and specifically, NSF/ANSI 44 certified for residential settings and ASSE 1087 for commercial applications. Using this phrasing is the first step in addressing the cross-connection concern raised by the city. Receiving guidance from TCEQ was a key aspect of being successful in Houston; the TCEQ guidance provided clarification on cross-connection and that softened water is not found in the TCEQ Hazard Appendix, and the TCEQ RG-478 document which covers cross-connection indicates again water softeners only need backflow prevention/air gap on a drain line.

Change Result: WQA/TWQA was successful in a vote of 8-3 approving the amendment and creating a carve-out for residential water softeners.

REACh Guidance: Review and turn to the WQA CCMC presentation, TCEQ guidance, and other information to help with using science and technical information in advocating for your position.

Case Study 2: State of Minnesota – Misinterpretation

4714.0611	**611.3.1 Isolation and Bypass.** Every water conditioning installation shall include the installation of isolation valves and a bypass valve which would allow the equipment to be serviced or removed without the need for shutting off the water service completely.

Research: Minnesota's 2020 Plumbing Code which is based on the UPC 2018 edition, with state-specific amendments, contained a section that was misinterpreted to require an additional bypass assembly on residential water conditioning equipment. During this step, it's important to fully research all factors of implementation to overcome opposition and misinterpretation.

Engagement: Engagement by MWQA/WQA was pivotal in overturning the plumbing inspector's interpretation of the code. WQA submitted a letter advocating that the code in this section has been misinterpreted to require an additional bypass assembly on residential water conditioning equipment.

- *Window of Opportunity:* During the adoption process, the Department of Labor and Industry issued a Request for Action (RFA) on bypass requirements for water conditioning installations; subsequently the Plumbing Board held a meeting to discuss concerns on the subject. A WQA/MWQA also sits on the Plumbing Board which helped elevate our position.
- *Scientific & Technical Information:* An integral service by-pass appurtenance already built-in to water conditioning equipment meets the requirements of the current plumbing code. Section 611.1.1(2) of the 2020 Minnesota Plumbing code requires all residential softeners to be certified to NSF/ANSI 44 or assembled with NSF 61 components. NSF/ANSI 44 already mandates a by-pass device to be integrated into the installation of these systems. Thus, residential water conditioning equipment has an integrated by-pass valve, allowing maintenance and service to be conducted on the equipment without shutting off the water. The inclusion of a manufactured by-pass valve allows for the isolation of the water conditioning equipment and is in alignment with the MN Statute § 326B.50 Subd.3(2)(i).

Change Result: The Minnesota Plumbing Board voted 7-0 to strike down the interpretation that our "integral by-pass appurtenance" does not meet the Minnesota Code and in favor of the WQA/MWQA position.

Case Study 3: Big Sky, Montana – Ordinance Ban

ARTICLE 13 WATER SOFTENERS

Section 13.1 PROHIBITIONS AND LIMITATIONS

A. No new water softener may be sold, offered, distributed, or installed within the District.

B. Existing residential water softeners may continue to be used for the remainder of their lifespan; however, they are not to be replaced upon the end of their useful life. The district will offer a $100 bill credit for each residential water softener that is removed prior to the end of its useful life

C. Existing commercial water softeners shall be removed or replaced by non-brine discharging systems prior to January 1, 2024.

D. The use of non-brine discharging and non-phosphorus based water conditioners is not prohibited by this ordinance.

Research: The Big Sky County Water & Sewer District proposed a wastewater use ordinance that would have prohibited the use of water softeners in the area.

Engagement: WQA members built a coalition of stakeholders including the local hospital and businesses that would be impacted by the ban.

- *Window of Opportunity:* WQA supported a member in attending the Big Sky County Water & Sewer District board meeting.

Advocate: WQA sent a letter to the board opposing the ban.

Change Result: The board decided to remove Article 13 from the proposed changes to the Ordinance.