Introduction

In recent years, many water utilities have adjusted their treatment processes to comply with regulations under the Safe Drinking Water Act. Among those treatment options is the addition of monochloramine, typically employed as a secondary disinfectant. If your utility is planning on using monochloramine, this package is designed for you. The materials will assist you in implementing a comprehensive communications plan that provides important facts to various targeted audiences and limits the spread of misinformation.

In all cases, the materials in this package should be reviewed and adjusted to reflect local circumstances.

How to Use this Package

This toolkit includes both guidance documents for internal use (e.g., talking points, risk communications tips) and communications tools for external audiences (e.g., brochure language, Q&A sheet). All materials may be customized and implemented in a way that is consistent with your utility’s overall communications approach.

The materials are not intended to be simply printed and distributed. In fact, many of the sheets begin with explanatory language that is not intended for dissemination.

Before determining how to best use this kit, we recommend you;

1. Read this introductory piece.
2. Carefully review the Sample Implementation Timeline.
3. Examine the remainder of the documents to determine which ones to adapt and use in your utility.

Communicating About Monochloramine

Today, the most common reason for a utility to introduce monochloramine is to assure compliance with the U.S. Environmental Protection Agency’s (US EPA) Stage 1 and Stage 2 Disinfectants and Disinfection Byproducts rules. While materials in this kit largely assume disinfection byproduct control as their key driver for the introduction of monochloramine, they can be easily adjusted to address local conditions.

Technical Preparation

For public outreach on monochloramine to be effective, a utility must first be able to clearly communicate the technical reasons behind the conversion. For example, your utility should be able to provide—through its web site or other means—a clear articulation of your treatment challenges, water quality objectives and regulatory outlook that led to your decision to use monochloramine.

Utilities that understand and make available relevant baseline technical information (e.g., DBP levels, Lead and Copper Rule testing results) before the conversion will be in a better position to communicate how monochloramine impacted their system and customers following the conversion.
Consecutive Systems

When a water system is part of a larger network of water systems, inter-system communication and coordination is critical. Utilities introducing monochloramine should communicate early and frequently with other systems in their networks—both wholesalers and purchasers of water—to assure that all impacted businesses and customers receive the necessary information.

An Integrated, Cooperative Approach

A utility’s conversion to monochloramine will involve a number of agencies and disciplines. If your decision-making process included your primacy agency/health department, you are already aware of public notification guidelines and have started building relationships that are important to your conversion. Your primacy agency/health department plays a significant role in protecting public health and will be an important partner in communicating with targeted stakeholder groups as well as the general public.

An integrated team that meets early and often will help ensure a successful conversion. Keeping team members apprised of a utility’s unique concerns, such as lead service lines and corrosion control, will help team members take appropriate actions to address those concerns.

Anticipate Citizen Concern

While monochloramine has been successfully used for drinking water disinfection for many years, its introduction in some communities has been met with concern.

In San Francisco, California, Champlain, Vermont, Tulsa, Oklahoma, Pennsylvania and elsewhere, a small percentage of citizens has reported respiratory issues, skin irritation, digestive problems and other ailments. The actual cause of the reported problems is unknown. US EPA does not anticipate adverse health effects from monochloramine at levels within regulatory limits. However, just as some individuals are sensitive to chlorine, it is possible that some individuals may be sensitive to monochloramine.

San Francisco Public Utilities Commission was among the first utilities to experience organized concern from a citizens’ group opposing monochloramine. The utility spent approximately five years preparing for its conversion by meeting with wholesale customers about operational aspects of the conversion and working with local health officials and sensitive communities. San Francisco had a well-planned public outreach program to ensure the community was fully informed and educated about the change to monochloramine, which took place in February 2003. Still, citizens were told the date of the conversion, and shortly thereafter, the first complaints of skin problems were reported. A citizens’ group formed, and it advocated through the utility, regulators, legislators and the media for the removal of monochloramine.

Through the Internet, the San Francisco group connected with individuals in other communities to share concerns about monochloramine. Since then, citizens’ groups have challenged water providers and health professionals on monochloramine introduction in several communities across the United States.

It is important for any utility contemplating a conversion to monochloramine to understand the potential for opposition and have knowledge of additional monochloramine research that is occurring. Utilities that communicate proactively and transparently can help define the relevant issues for customers and provide a better foundation for well-informed public dialogue.

Involve Health Professionals

Health professionals are usually perceived as the most credible sources for health effects information, so utilities may find it beneficial to coordinate with public health officials in answering health effects questions. Monochloramine use and safety may be new to some health experts and physicians, so they may benefit from portions of the enclosed information well before monochloramine use begins.
Terminology is Important
Throughout this toolkit, you will notice that the term monochloramine is used rather than the more general term chloramine. We chose to use monochloramine to be more precise about the chemical compound used in drinking water disinfection. The experience of some utilities indicates that the term chloramine can lead stakeholders to confuse monochloramine with dichloramine and trichloramine.

Special Targeted Audiences
While broad communications about monochloramine are important, there are some audiences that require particular information prior to monochloramine use:

➤ Dialysis Patients and Centers
➤ Fish/Aquatic Pet Owners and Businesses

Dialysis patients and providers must take special steps to remove monochloramine before using water in dialysis machines. Refer to the “Resources Dialysis Centers and Patients” for resources to assist you in communicating with these customers.

Monochloramine can kill fish and other animals with gills, because it is toxic when it directly enters the blood stream. Information to help you inform fish/aquatic animal owners and businesses is included in the section on “Resources for Pet Stores/Aquarium Owners.”

Please peruse the entire Table of Contents to familiarize yourself with the various documents provided. If you have questions about this package or other issues regarding communication associated with monochloramine, please contact AWWA's Office of Public Affairs at 303.734.3410.
Monochloramine Glossary

**Carcinogenicity**—A term referring to the likelihood of a substance causing cancer.

**Chloramine**—Disinfectant used to treat drinking water; formed when ammonia is added to chlorine; different types of chloramines include monochloramine, dichloramine and trichloramine.

**Compliance**—The act of meeting all state and federal drinking water regulations.

**Dialysis**—The process of cleansing blood by passing it through a special machine; dialysis is necessary when the kidneys are not able to filter the blood. There are two types of dialysis, hemodialysis and peritoneal dialysis. Hemodialysis is the most common and involves filtering the blood through a semipermeable membrane, adding vital substances, and returning it to a vein.

**Dichloramine**—A disinfectant typically produced to a lesser extent than monochloramine, in low pH and high chlorine-to-ammonia-nitrogen ratios.

**Disinfectant**—A chemical or physical process that kills microorganisms like bacteria, viruses and protozoa. Commonly used chemical disinfectants include chlorine, monochloramine and ozone. A commonly used physical process is ultraviolet light.

**Disinfectant residual**—Small amounts of a disinfectant that are maintained in the water at all times to inactivate microbes that can make people sick; the residual may be either free chlorine or monochloramine.

**Disinfection**—The inactivation of disease-causing organisms in water. There are two types of disinfection. Primary disinfection refers to treatment meant to inactivate 99.9% or more of the microorganisms. Secondary disinfection is present in water traveling through a distribution system.

**Disinfection byproduct**—Chemicals that may form when disinfectants (such as chlorine) react with plant matter and other naturally occurring materials in the water. These byproducts may pose health risks in drinking water. Two groups of regulated disinfection byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs).

**Dissipate**—To spread out or spread thin to the point of vanishing.

**Distribution System**—A network of pipes leading from a treatment plant to customers’ plumbing systems.

**Monochloramine**—A disinfectant used to inactivate disease-causing organisms in distribution systems; monochloramine lasts longer than free chlorine, dissipates from water more slowly and produces lower levels of regulated disinfection byproducts; monochloramine (NH₂Cl) is formed by adding chlorine and ammonia under controlled conditions.

**Microbes (microorganisms)**—Tiny living organisms that can only be seen with the aid of a microscope. Some microbes can cause acute health problems when consumed (see pathogens).

**Natural organic matter**—Naturally occurring compounds originating from plants and animals that are present in untreated groundwater, lakes, rivers and reservoirs. Natural organic matter is a precursor to disinfection byproducts.

**N-Nitrosodimethylamine (NDMA)**—A member of the chemical class, the N-nitrosoamines, which are suspected carcinogens. NDMA is classified as a probable human carcinogen, based on animal studies. NDMA has been in rocket fuels, as a solvent, and as a rubber accelerator. It is also found in various meat and cured meat products, fish and fish products, beer, milk, and more. In addition, NDMA can be a disinfection byproduct of chlorination or monochloramination.
Pathogens—Disease-causing organism, such as some bacteria, viruses, or protozoa.

Safe Drinking Water Act (SDWA)—A law originally passed by Congress in 1974 to protect public health by regulating the nation’s public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources.

Safe Drinking Water Hotline—US EPA operates the Safe Drinking Water Hotline (1.800.426.4791) that can answer questions about regulations and programs developed under SDWA, and provide federal and state contacts for specific information.

Stage 2 Disinfectant and Disinfection Byproducts Rule—A regulation promulgated by the United States Environmental Protection Agency to reduce potential cancer from disinfection byproducts (DBPs) in drinking water, which form when disinfectants are used to control microbial pathogens. This regulation reduces exposure to trihalomethanes (THM) and haloacetic acids and related potential health risks.

Trichloramine—Also called nitrogen trichloride; not normally detected in monochloraminated drinking water; has little disinfection capacity and is the source of taste and odors. Trichloramine is typically associated with disinfected water used in swimming pools.
Monochloramine Research and Public Information

Each utility should begin its monochloramine conversion communications plan by exploring the latest research and available public information. The goal is to have a thorough understanding of regulatory issues, the issues and concerns that concerned groups might raise, and the challenges faced by other utilities. Additionally, one to two years' worth of utility and health department data can provide a useful baseline against which post-conversion measures can be compared.

Following are suggested areas in which to conduct research prior to conversion, based on a utility’s specific situation.

United States Environmental Protection Agency
- **Stage 2 DBP Rule**—[www.epa.gov/safewater/disinfection/stage2/regulations.html](http://www.epa.gov/safewater/disinfection/stage2/regulations.html)
- **Chloramines in Drinking Water**—[www.epa.gov/safewater/disinfection/chloramine/index.html](http://www.epa.gov/safewater/disinfection/chloramine/index.html)

Centers for Disease Control and Prevention

Dialysis Providers
- Compile/purchase a list of dialysis providers in the affected service area.
- Research dialysis trade associations as another source of obtaining and disseminating information.
  - Discuss water testing techniques and procedures.

Pet Stores/Aquaria Sellers/Restaurants/Fish Farmers
- Compile/purchase a list of target audiences that sell or keep live fish or aquatic animals.
- Determine locations for point-of-purchase displays (pet stores, big box stores with pet departments, etc).
- Identify trade associations or clubs that can serve as sources of information or assist in disseminating information.

Monochloramine Studies & Respective News Coverage
- [http://news.illinois.edu/news/04/0914water.html](http://news.illinois.edu/news/04/0914water.html)
- [http://www.epa.gov/athens/research/process/drinkingwater.html](http://www.epa.gov/athens/research/process/drinkingwater.html)
Citizen Activist Groups Websites & Blogs

➤ Citizens Concerned About Chloramine (CCAC)—http://www.chloramine.org/
➤ Vermonters for a Clean Environment—http://www.vce.org/chloramine.html
➤ Chloramine Info Center—http://www.chloramineinfocenter.net/

AWWA & Utility Information

➤ AWWA Public Communications and Monochloramine—
  www.awwa.org/Government/Content.cfm?ItemNumber=41233&navItemNumber=3852
➤ AWWA Monochloramine and its Relatives—
  www.awwa.org/Government/Content.cfm?ItemNumber=41619&navItemNumber=3852
➤ AWWA Monochloramine Consumer Information—
➤ San Francisco Public Utilities Department—www.sfphes.org/water/chloramines/default.htm

Utility Data—Baseline

➤ Compile and track water quality complaints (e.g. taste, odor, color, etc.) for at least 12 months prior to conversion.
➤ Consider a public opinion survey to obtain baseline opinions on water quality, taste, odor, value, the utility’s service, etc.
➤ Work with the local health department to obtain 1 to 2 years worth of data on dermal, respiratory, ocular and gastrointestinal ailments.

Utility Data—After Conversion

➤ Compile and track water quality complaints (e.g. taste, odor, color, etc.); compare to the same record of time prior to conversion
➤ Work with the health department to compile, track and data on dermal, respiratory, ocular and gastrointestinal ailments post-conversion to see if the incidence of complaints have increased, decreased or stayed the same. These measures can be useful tools in communicating to elected officials, the community and the media.
➤ Consider conducting a post-conversion public opinion survey to measure any changes in opinions on the same topics as the pre-conversion survey. Care should be taken when timing of a post-conversion public opinion survey as public opinion can be impacted by media coverage.
Sample Implementation Timeline

The following timeline and planning grid are presented as samples and guidelines for a utility to customize to meet its own communications needs once monochloramine has been selected as a disinfectant. If a utility uses an open, transparent process to examine and discuss different treatment options, then communications work will be needed to support that effort.

Once monochloramine has been selected, each utility should develop its communications plan based on a number of factors, including but not limited to:

➤ Reasons for implementing monochloramine
➤ Decision-making process for monochloramine implementation (if not conducted in public forums)
➤ Permitting requirements for notification
➤ Timing of implementation (lead time, other factors occurring during implementation phase, such as elections, changes in board appointments, new regulations, etc.)
➤ Consecutive systems
➤ Public perceptions about a community’s drinking water quality and safety
➤ Distribution system age and materials, e.g. lead pipe
➤ Sensitive populations
➤ Existing communications infrastructure, staff and budget

Additionally, a utility that serves large populations of non-English speaking people or who speak English as a second language, should incorporate time to have materials translated and produced in other languages.
Sample Implementation Timeline

24–18 months prior
➤ Conduct research; begin communications planning process
➤ Ensure customer water quality complaints are tracked to establish a benchmark for comparison after monochloramine implementation
➤ Develop communications timeline, including key decision points
➤ Meet with primacy agency/health department to enlist cooperative support; continue meetings throughout
➤ Meet with consecutive systems/wholesale customers on technical and communications aspects of conversion; continue meetings throughout
➤ Obtain baseline data from health department on dermal complaints, respiratory issues, etc.

18–12 months prior
➤ Develop key messages & talking points
➤ Develop & distribute internal communications tools
➤ Develop draft external communications tools for distribution at a later time
➤ Incorporate key messages & talking points into initial briefings with public officials
➤ Purchase/create lists of dialysis care providers, pet stores, restaurants, etc.

12 months prior
➤ Use key messages to create a water quality PowerPoint presentation for general audiences (10-15 minutes in length)
➤ Train select speakers bureau staff on making the presentation and answering general questions
➤ Research call centers
➤ Provide external communications materials produced to-date to consecutive systems

10 months prior
➤ Board/commission presentation on reasons for conversion and timeline; focus on water quality efforts to date and planned improvements
➤ Conduct customer service training workshop
➤ Begin booking speakers bureau presentations to start 6-7 months prior to launch
➤ Issue general news release focused on improving water quality
➤ Develop customer brochure, begin working on paid media/social program concepts and plan (TV PSAs, print ads, web videos, etc.)

➤ Brief public officials on public notification timeline, leave behind information and number for referring callers

➤ Produce direct mail/bill stuffer

➤ Post information on utility web site/social media outlets

➤ Develop editorial board briefing matrix & schedule editorial board meeting

9 months prior

➤ Write letters/guest columns for homeowners associations

➤ Background briefing with editorial board(s) on water quality efforts to date and planned improvements, discuss reasons monochloramine was selected, track record, safety and special precautions

➤ Start speakers bureau presentations, continue throughout

8–7 months prior

➤ Send first letter to hospitals/dialysis centers

➤ Send first letters to pet shops, businesses with live fish or aquatic animals, restaurants, etc.

➤ Drop direct mail/bill stuffers

➤ Distribute HOA letters

➤ Send letter/fact sheet to physicians

6 months prior

➤ Issue news release focused on raising awareness among dialysis patients/providers

➤ Produce paid/social media elements (TV PSAs, radio PSAs, print ads, web site banners, videos, scrolls, etc.)

➤ Develop/produce in-store point-of-purchase display & literature for pet stores; deliver to pet stores

5 months prior

➤ Issue news release focused on changes that owners of aquatic life need to make

➤ Conduct another customer service training workshop

➤ If using a call center, train the call center personnel and activate call center before paid advertisements run

➤ Distribute HOA guest columns

➤ Update public officials/board members on conversion efforts, communications timing

4 months prior

➤ Paid media campaign begins, runs through conversion date

➤ Issue news release focused on the implementation of monochloramine, water quality improvements, measures taken to inform citizens and hotline/customer service number

➤ Prepare editorial board briefing matrix and schedule editorial board meeting(s)

➤ Obtain regular reports from call center/customer service center; make adjustments as necessary

3 months prior
2 months prior

➤ Send second letter to hospitals/dialysis centers
➤ Write and submit guest editorial to local newspaper(s) and post on utility web site/social media outlets
➤ Send second letter to pet stores, businesses with live fish or aquatic animals, restaurants, etc.
➤ Revisit editorial board(s) and request support for conversion and water quality improvements

1 month prior

➤ Send final letter to hospitals/dialysis centers requesting signed acknowledgement of conversion date
➤ Make follow-up calls to non-responsive hospitals/dialysis centers
Sample Communications Plan Framework

Following is a sample plan framework that can be used by a utility to start its communications planning process. Please note, however, this framework is not inclusive of all audiences that may be uniquely concerned about monochloramine. For example, home brewers and home wine makers may be a target audience in particular community that requires specific communications efforts, such as outreach to a local brew club. Your front end research will help identify such audiences so you can prepare accordingly.

<table>
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<tr>
<th>Target Audience</th>
<th>Objectives</th>
<th>Communications Tools</th>
<th>Additional Information</th>
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<tbody>
<tr>
<td>Permitting agency</td>
<td>■ Meet local permitting agency requirements for public notification.</td>
<td>■ Develop and implement a comprehensive, strategic, integrated public communications program.</td>
<td>■ Requirements will vary by jurisdiction. All communications efforts should comply with permit requirements.</td>
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| Frontline workers | ■ Ensure those who come in contact with the public are educated “water quality ambassadors”  
■ Provide training and information to frontline workers so that they can respond appropriately to general questions  
■ Ensure front line workers know where to refer more specific questions | ■ Key messages  
■ Background  
■ Talking points  
■ Call center/customer service training  
■ Intranet content | ■ Tips for Communicating Internally. |
| Public officials/board members | ■ Inform elected officials and their staff about the reason for implementing monochloramine  
■ Provide assistance for handling any citizens calls that elected officials may receive | ■ Talking points  
■ Fact pack  
■ Consumer brochure  
■ One-on-one briefings  
■ Guidelines for Meeting with Public Officials | ■ Objectives will vary depending on the utility’s decision making process.  
■ Communications materials should be prepared prior to public discussions on monochloramine or other treatment options, so that resources are available for news media and interested citizens.  
■ Early contact with local and state elected officials is critical to maintaining open lines of communication and ensuring the utility is the first and best source of information. |
| Primacy agency/health care department | ■ Enlist support for water quality improvements for the benefit of public health and safety  
■ Reach consensus on the benefits of selected secondary disinfectant  
■ Reach consensus on communications plans to reach dialysis providers and those with compromised immune systems  
■ Gain support from the primacy agency/health care department as a communications partner with targeted audiences, including general public, physicians, dialysis professionals, etc. | ■ Talking points  
■ Background  
■ Fact pack  
■ One-on-one briefings/meetings | ■ Enlist support for issuance of joint news releases, health department position papers, spokespersons for news stories, etc.  
■ Enlist support for responding to citizen concerns |
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<td>Dialysis professionals</td>
<td>■ Prevent human fatalities by ensuring that kidney dialysis professionals are aware of and prepared for the change.</td>
<td>■ Direct mail campaign, series of 3 letters, informing of the change to monochloramine; one letter in series requests signature acknowledgement.</td>
<td>■ Track receipt of signature acknowledgement and focus subsequent efforts on those that have not responded.</td>
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<td></td>
<td></td>
<td>■ Send certified letters when needed.</td>
<td>■ A local or regional dialysis professional organization may exist and can help the notification process.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Conduct follow-up phone calls when needed.</td>
<td>■ A list of dialysis professionals can be purchased.</td>
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<tr>
<td>Health care professionals</td>
<td>■ Provide information on the reason for the change to monochloramine and its successful track record, cite research and advice of precautions for dialysis/ immune-compromised patients.</td>
<td>■ Health care professionals fact sheet</td>
<td>■ May issue jointly with health department.</td>
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<td></td>
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<td>■ Health department may be able to assist with distribution.</td>
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<tr>
<td>Pet stores, bait shops, seafood wholesalers, aquatic industry, restaurants with fish tanks</td>
<td>■ Prevent fish and other forms of aquatic life from dying because their owners were uninformed about how to protect them from monochloramine.</td>
<td>■ Direct mail campaign to pet supply stores, bait shops, seafood wholesalers, restaurants.</td>
<td>■ Professional organizations and clubs can help spread information.</td>
</tr>
<tr>
<td>Fish and aquatic life owners</td>
<td></td>
<td>■ Point-of-purchase display and “take-one” cards for pet supply stores to educate their customers.</td>
<td>■ Track requests for additional “take-one” cards.</td>
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<tr>
<td></td>
<td></td>
<td>■ Media coverage</td>
<td>■ Lists of pet stores, bait shops, seafood wholesalers, restaurants and others can be purchased.</td>
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| Consecutive systems                                 | ■ Generate support among consecutive systems for the use of monochloramine  
■ Ensure operational issues are addressed  
■ Ensure that consecutive systems send consistent, clear messages about monochloramine and avoid conflict and confusion among customers. | ■ Involve consecutive systems in the conversion planning and communications processes  
■ Provide consecutive systems with information and tools to help them convey consistent messages about monochloramine.                                                             | ■ Directing calls to one central service center will help ensure consistency and making tracking easier.                                                                                                                                                                    |
| General water utility customers                     | ■ Raise awareness among customers of the upcoming water treatment change and its impacts.  
■ Emphasize the outcome of the conversion – improved water quality, reduced disinfection byproducts, etc.                                                                                     | ■ News releases/reporter briefings  
■ Fact pack  
■ Web content  
■ Bill stuffers  
■ Speakers bureau bookings  
■ Consumer brochure  
■ Paid/social media  
■ Existing utility social media outlets  
■ HOA letters/guest articles  
■ Water quality hot line to answer consumer questions (call center).  
■ Assist consecutive systems with facilitation of group presentations.                                                 |                                                                                                                                                                                                                                                                     |
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| All concerned parties | ■ Ensure concerned parties can have their questions answered by an informed utility representative. | ■ Call-center or customer service center training, resource documents and support numbers | ■ Multiple trainings will help ensure call center or customer service center workers keep monochloramine top-of-mind.  
 ■ Track complaints and compare against baseline water quality complaint data.  
 ■ Citizens will have complex questions and may need to speak to someone with expertise in health care, aquatic animals, etc. It is important that staff be available to respond quickly to concerns that cannot be addressed by customer service/call center staff. |
| Opposition groups   | ■ Proactively encourage open communications to address concerns prior to conversion  
 ■ Obtain expert input & opinions to answer concerns | ■ Q&As  
 ■ Web content  
 ■ Speakers bureau bookings  
 ■ Water quality hot line to answer consumer questions (call center). | ■ Risk Communication Tips  
 ■ Ensure all those who answer questions or address concerns from affected individuals are trained in responding with compassion and concern as well as active listening. |
Monochloramine Risk Communications Tips

Adapted from Vincent T. Covello’s Risk Communications Tips

As you prepare to communicate about monochloramine in your community, consider these general risk communications principles:

1. **Engage credible third parties in your decision to convert to monochloramine.**
   Work in advance to identify and engage local or state public health officials in the utility's anticipated conversion to monochloramine. Encourage discussions, joint fact finding and resource sharing to reach consensus on the conversion.

2. **Be prepared— and be the first and best source of information.**
   Informing the public through a proactive, targeted communications program is essential to building community support and understanding regarding any treatment process, including the introduction of monochloramine. Different target audiences require different communications strategies, so you will need to begin preparing several months before implementing monochloramine.
   
   Start by ensuring you have adequate staff dedicated to handling customers concerns. Prepare information to ensure staff members, customers service representatives, receptionists and those on the front lines (meter readers, public-facing office personnel, etc.) are aware of the change and are prepared to respond to questions they receive (this can be as simple as: “Let me share your concerns with our water utility manager and have him/her get back to you.”). Next, prepare information to share with elected officials and city/county administrators so they are ready for any citizen calls they may receive. And finally, launch your public communications program. Your program should target specific audiences, such as dialysis providers and pet stores, as well as the media and general public. The materials provided in this package can be easily tailored for specific utility needs.

3. **Clearly communicate the benefits of switching to monochloramine.**
   Using monochloramine has clear and quantifiable public health and safety benefits. Your communications should clearly state why the utility is making the change to monochloramine and how that will directly benefit your customers.

4. **Listen to the public’s specific concerns.**
   People want to be heard and often care more about trust, credibility, competence, fairness, and empathy than about statistics and details. Listen to customers and provide honest responses.
5. **Speak clearly and with compassion.**

Take care to acknowledge all concerns as genuine, and respond with patience and compassion. Customers who understand you care will be more willing to listen to facts that may assuage their concerns. Follow up with relevant information using simple, non-technical language.

6. **Embrace the public as a partner.**

Unwarranted angst can be reduced by proactively empowering customers with the information they need about monochloramine (particularly those who will be affected by the switch). Dedicate web pages on monochloramine that include a fact sheet on the issue with general information as well as specific steps for dialysis patients and pet owners. See yourself as a partner in helping your customers understand the change. Consider establishing a speaker’s bureau specifically to inform and educate citizens on monochloramine before the change takes place.

7. **Meet the needs of the media.**

In many cases, the media serves as the first conduit of information to customers. Be proactive by distributing news releases regarding monochloramine implementation and taking the time to brief reporters. Being the first source of information with the media is critical to setting the stage and explaining issues neutrally as the first source usually has the greatest impact on a story. Be prepared to answer questions related to water quality and safety in simple, non-technical terms. Return media phone calls and emails as soon as possible to ensure that your messages are part of any story. Draw attention to any information prepared to help frame the issue in the proper context. Prevent a media outlet from saying, “Local water officials were unavailable for comment.”

8. **Utilize credible third parties to amplify your message.**

Ask the local or state public health officials with whom you worked prior to converting to serve as third-party spokespersons. Health and government officials can speak about the benefits of monochloramine, and more broadly, water disinfection. Consider sharing your resources with entities that can use them as a basis for further communications—e.g., health care settings and pet stores. Third-party voices provide context for the issue and give customers an added level of comfort.
Monochloramine Key Messages

Overall Messages

1. Disinfection of drinking water is vital to protecting the public from waterborne diseases.
   The practice of disinfecting drinking water has made many once-common diseases, like typhoid and cholera, a thing of the past in the United States, Canada and other developed countries.

2. We are committed to providing drinking water that maximizes public health and minimizes potential health risks. Using monochloramine as a secondary disinfectant in our distribution system is part of that commitment.
   ➤ Monochloramine is an effective, long-lasting drinking water disinfectant.
   ➤ Monochloramine reduces the potential risk associated with regulated disinfection byproducts in tap water.

3. Today, more than one in five Americans use drinking water treated with monochloramine.
   ➤ Monochloramine has been safely and successfully used by water utilities for more than 90 years. Boston, Dallas, Houston, San Diego, San Francisco, Tampa Bay, Miami, Denver, Philadelphia, Minneapolis and many other cities are all successfully using monochloramine to treat drinking water.

4. We will continue to monitor the recommendations of U.S. Environmental Protection Agency and Centers for Disease Control and Prevention as well as relevant research to make sure our operations are based on the best available information.
   ➤ US EPA recognizes monochloramine as a best available technology under the Safe Drinking Water Act.

5. While monochloramine is safe for drinking, cooking and all typical uses, there are special circumstances where monochloramine must be removed.
   ➤ Monochloramine must be removed from water used for kidney dialysis.
   ➤ Monochloramine must be removed from water used when keeping pets like fish and some amphibians.

Additional Messages—to be tailored by utilities as appropriate

6. Typically, chlorine, ozone or UV light is used to disinfect water at a treatment plant, while chlorine or monochloramine is used in the distribution system.
   ➤ *(Insert utility name)* uses *(insert primary disinfectant)* as our primary disinfectant at the treatment plant(s).

7. Federal and state regulations require *(insert utility name)* to maintain a disinfectant in our distribution system to protect public health.
   ➤ The two options are chlorine and monochloramine, both of which have benefits and drawbacks.
   ➤ *(Insert utility name)* worked with *(insert regulatory agency, health department, other stakeholders, etc)* and selected monochloramine because it produces lower levels of disinfection byproducts, *(insert reason)*, and *(insert reason)*.
8. With the conversion to monochloramine, our customers will receive high-quality drinking water that meets or surpasses stringent regulatory standards.
   ➤ We plan to use/are using accurate and reliable equipment to ensure monochloramine in our system meets all regulatory standards.
   ➤ Water chemistry throughout our system will be/is monitored constantly so that we can adjust our treatment process if needed.

9. The conversion to monochloramine will have a $X impact on our water rates. For the average homeowner that uses XX gallons per month, that means an additional $Y on the homeowner’s water bill.

10. (Insert utility name) looked at various alternatives to meet new disinfection byproduct regulations. Monochloramine was selected because (insert 2-3 reasons).

Monochloramine Health Concerns

1. US Environmental Protection Agency research and experience to-date indicates monochloramine is safe and beneficial at levels typically used to treat drinking water.

2. In recent years, a small percentage of consumers have expressed concern over health symptoms they believe are connected to monochloramine. Among the reported symptoms are respiratory problems, skin irritation and digestive problems.
   ➤ While the actual causes of the reported symptoms are undetermined, our first concern is the health and welfare of our customers. If you experience symptoms you believe are connected to monochloramine, please immediately contact your physician, (insert public health agency) and (insert utility name).
   ➤ It is possible that some individuals may be sensitive to monochloramine, just as some individuals are sensitive to chlorine.

3. We join the U.S. Environmental Protection Agency, the Centers for Disease Control and Prevention and the American Water Works Association in encouraging continued research on drinking water disinfection including the safe use of monochloramine as a disinfectant. We will continue to monitor results and adjust operations based on recommendations from the very best scientific and public health experts.

Dialysis Key Messages

1. Like chlorine, monochloramine must be removed from water before using it for kidney dialysis.

2. Like chlorine, monochloramine can harm kidney dialysis patients during the dialysis process, where water comes in contact with the bloodstream.
   ➤ (Insert utility name) will work/have worked with local dialysis providers to ensure they are aware of the change to monochloramine.

3. At levels used to disinfect drinking water, monochloramine is harmful if it directly enters the bloodstream.
   ➤ Kidney dialysis patients can safely drink, cook and bathe in monochloramine-treated water.
   ➤ Monochloramine is safe for dialysis patients to drink because the digestive process neutralizes monochloramine before it enters the bloodstream.
Aquarium/Aquatic Life/Pets Key Messages

1. Monochloramine, like chlorine, must be removed from water used for keeping live fish, amphibians and other aquatic life.
   - Monochloramine, at levels used to disinfect drinking water, is harmful to fish and amphibians when it directly enters the blood stream from water that passes through their gills.
   - Monochloramine must be removed from water used for both freshwater and saltwater life, including Koi fish, lobster, shrimp, frogs, turtles, snails, clams and live coral. Consult a local pet dealer or veterinarian if you are unsure about your pet and monochloramine.

2. To protect fish and amphibians, use treatment products to remove monochloramine from tap water. These products are readily available at most pet supply stores and aquarium dealers.

3. Leaving water to sit for a few days is not an effective method for removing monochloramine. Monochloramine is longer lasting than chlorine and will not dissipate from water.

4. Dogs, cats, birds and other animals can safely drink water treated with monochloramine because the digestive process neutralizes monochloramine before it enters the bloodstream.
Communicating Internally on Monochloramine

Disinfection of drinking water is vital to protect public health from waterborne diseases. The practice of disinfecting drinking water has made many once-common diseases, like typhoid and cholera, a thing of the past in the United States, Canada and other developed countries. Monochloramine is one option for secondary disinfection that protects against waterborne diseases and forms lower levels of regulated disinfection products.

While monochloramine is safe for drinking, cooking and all typical uses, its introduction in some communities has been met with concern. Utility employees may encounter customers, media or others who want answers to difficult questions about monochloramine.

Anticipating these moments and preparing employees is vital to a utility’s overall communication strategy. As public servants, it’s important for utility staff to know about the monochloramine issue and the process for providing customers with accurate information about monochloramine use.

The following list includes tools and tactics to help you prepare an effective internal communications plan.

➤ Develop a process for handling monochloramine questions from the media; ensure all staff members know and understand the process they are expected to follow.

➤ Prepare a message from the utility manager to all employees providing them with an overview of the topic and accurate information about monochloramine use.

➤ Choose an appropriate person/department to which all monochloramine inquiries will be directed.

➤ Fully brief Customer Service staff on both the media process and how to handle inquiries from the public. Consider developing a separate Customer Service handbook to ensure consistent and accurate answers to citizen questions.

➤ Prepare information on monochloramine (update on regulatory developments, fact sheet, other information) that serves as a basis for:
  ● A fact sheet to be posted throughout facilities and on your utility’s Intranet
  ● An article in your employee/agency newsletter
  ● A presentation at an employee staff/department meeting or other gathering
  ● Manager briefings to ensure department staffs are aware of the monochloramine issue and to reinforce procedures for handling inquiries from both the media and the general public
  ● A short statement and/or Q&A for Customer Service personnel (consider using materials provided in this packet and additional information from your utility)
  ● A training/practice session for your Customer Service/Call Center

➤ Ensure all staff members understand that while some people may report health issues of unknown origins, the response to citizens should be sympathetic and caring.

➤ Provide all utility staff with information to address concerns raised by employees’ friends and families.

➤ Brief all utility staff on protocol for handling inquiries raised by general public (e.g., what should a pipeline mechanic do if confronted while on the job?)

For more information, contact AWWA’s Office of Public Affairs at 303.734.3410.
Guidelines for Meeting with Public Officials

Meeting with key elected officials on a regular basis keeps them apprised of the critical work your utility is doing for their constituents and informs them of issues and challenges you face. Furthermore, elected officials can prove to be valuable allies should the public become concerned or critical of changes being made to their drinking water, such as introducing monochloramine. Below are guidelines to keep in mind when conducting a meeting with local, regional or state elected officials on the subject of monochloramine:

➤ When scheduling the meeting, don’t be offended if you are given an appointment with a staff member. These are often the people who know the most about your issue area and are trusted advisors to the elected official.

➤ Strategically select your participants, and try to limit the number of attendees from the utility to two or three. You may want to bring the utility’s manager, water quality officer, public affairs officer and/or operations director.

➤ Practice before you visit. Know the role each participant will play and what points each will emphasize.

➤ At the start of the meeting, be sure to state how much you appreciate his/her time.

➤ Introduce your team and briefly state each participant’s credentials.

➤ Start by stating your purpose, indicating you are there to provide information on the benefits of monochloramine and the rationale behind the decision to use them.

➤ You can use the talking points or editorial board matrix (see separate documents) to guide the points discussed.

➤ State the first key point, and then go down the list of supporting information for that key point. Be sure to position the key points in terms of why they are important for that official’s constituency. Customize them to suit the local environment and circumstances.

➤ Ask for the public official’s support for the decision to switch to monochloramine and assistance in addressing constituent concerns.

➤ Provide the official or staff member with resources (phone number, website, etc.) that can be provided to constituents who request additional information.

➤ When you have completed your remarks, you will likely be asked questions by the official or staff. If you are not certain of the answer, don’t guess or speculate. Simply say that you will need to confirm and get back to them.

➤ When the meeting is over, provide a leave-behind that outlines your key points and make sure the official or staffer has your contact information so that he/she can be in touch. The editorial briefing document can serve as a starting point for this leave-behind, along with the other documents included in this package.

For more information, contact AWWA’s Office of Public Affairs at 303.734.3410.
Monochloramine Background

Stage 2 Disinfection Byproducts Rule
Disinfection of drinking water is vital to protect public health from waterborne diseases. The practice of disinfecting drinking water has made many once-common diseases, like typhoid and cholera, a thing of the past in the United States, Canada and other developed countries. The U.S. Centers for Disease Control and Prevention recognizes the control of infectious diseases as a result of cleaner water and improved sanitation as one of the top 10 public health achievements of the 20th century.

However, chemical disinfectants can react with organic matter found in raw water to form disinfection byproducts, which may pose health risks. The U.S. Environmental Protection Agency (US EPA) has enacted new rules in recent years to reduce potential risk associated with regulated disinfection byproducts in drinking water. Specifically, the Stage 2 Disinfection Byproducts Rule has more stringent standards and monitoring requirements for two groups of disinfection byproducts, which are suspected carcinogens with prolonged exposure: trihalomethanes (THM) and haloacetic acids (HAA5). The goal of the regulation is to reduce disinfection byproduct exposure and related potential health risks, and to provide more equitable public health protection.

Meeting the New Rule
(Insert utility name) is committed to providing drinking water that maximizes public health and minimizes potential health risk. Using monochloramine in our system is part of that commitment.

Utilities use primary disinfectants at treatment plants to inactivate microorganisms, such as bacteria, viruses and protozoa. Examples of primary disinfectants include chlorine, ozone and ultraviolet light. Secondary disinfection is then used to keep the water safe in the distribution systems.

In (month) (year), we will begin using monochloramine as a secondary disinfectant and continue to use ___________ as a primary disinfectant.

Monochloramine (NH₂Cl) is formed by adding chlorine and ammonia under controlled conditions.

(Insert utility name) is introducing monochloramine to our system to comply with the new US EPA Stage 2 Disinfection Byproducts Rule (insert different reasons as appropriate). Monochloramine will reduce the level of THM and HAA5 in our water system. The decision to change to monochloramine was made by (insert utility name, governing board name, etc) after research into a number of options, including (list options). Monochloramine was selected as the method of choice because (list 1-3 reasons).

About Monochloramine
Today, more than one in five Americans use drinking water treated with monochloramine. Monochloramine has been safely and successfully used by water utilities for more than 90 years. Boston, San Francisco, Tampa Bay, Miami, Denver, Philadelphia, Minneapolis and many other cities are successfully using monochloramine to treat drinking water.

Monochloramine is an effective, long-lasting disinfectant. Operational benefits of using monochloramine include:

➤ Fewer disinfection byproducts—Monochloramine is not as reactive as chlorine, so it forms fewer regulated disinfection byproducts.
➤ Better protection against bacterial re-growth—Because monochloramine residual is more stable and longer lasting than free chlorine, it provides better protection against bacterial re-growth in distribution systems with large storage tanks and dead-end water mains.
➤ Effective in controlling biofilm—Biofilm is a coating in the pipe caused by bacteria.
➤ Taste and odor—Monochloramine tends not to react with organic compounds, so many systems will experience fewer taste and odor complaints when using monochloramine.
➤ Ease of use—Monochloramine technology is relatively easy to install and operate.
Monochloramine & Lead
While monochloramine is not more corrosive toward metals than chlorine, it does change the chemistry of drinking water. In certain cases this may cause lead from pipes or home plumbing to dissolve into the water. However, with water quality testing and monitoring, a utility can evaluate and optimize its corrosion control treatment to reduce the possibility of this occurring. Find out more about lead in drinking water at [link to lead fact sheets].

Monochloramine Chemistry
Monochloramine is a chemical compound of chlorine and ammonia, commonly used as a diluted solution to disinfect drinking water before it is delivered to homes. The formation of monochloramine is done at very low concentrations, measured in parts per million, under stringent drinking water guidelines.

Monochloramine (NH₂Cl) should not be confused with dichloramines (NHCl₂) or trichloramines (NCl₃), two chemically distinct and separate compounds. Dichloramine is a reactive inorganic compound that can form along with monochloramine and free chlorine. It can react with many different materials, but its formation can be prevented or reduced to only trace levels during water treatment through careful oversight by water professionals.

Trichloramine (nitrogen trichloride) formation does not typically occur under normal drinking water treatment conditions. Trichloramine is commonly encountered as a byproduct of chemical reactions in extreme conditions—for example, in swimming pools between chlorine and bathers’ waste products. This occurs rarely in water treatment.

What Customers Need to Know
With the conversion to monochloramine, our customers will continue to receive high-quality water that meets or surpasses stringent regulatory requirements. Utilities that use monochloramine often experience fewer taste/odor complaints than utilities using free chlorine.

While monochloramine is safe for drinking, cooking and all typical uses, there are special circumstances where monochloramine must be removed:

➤ Kidney dialysis treatments and
➤ Keeping pets like fish and some amphibians.

Since the process for removing monochloramine is different from some of the methods used to remove chlorine, medical facilities and dialysis units, as well as pet shops, seafood merchants, restaurant managers and area attractions featuring marine life, will be notified in ample time to prepare for the conversion.

Future Research on Monochloramine
Chlorine and monochloramine, the two disinfection residual options available, have benefits and drawbacks. In recent years, a small percentage of consumers have expressed concern over health symptoms they believe are connected to monochloramine, similar to consumers who have reported sensitivity to chlorine. Among the reported symptoms are respiratory problems, skin irritation and digestive problems. While the actual causes of the reported symptoms are undetermined, our first concern is the health and welfare of our customers. If a consumer experiences symptoms that are believed to be connected to monochloramine, we advise that person to immediately contact his or her physician, [insert public health agency] and [insert utility name]. It is possible that some individuals may be sensitive to monochloramine, just as some individuals are sensitive to chlorine.

[Insert utility name] will continue to monitor the recommendations of U.S. Environmental Protection Agency and Centers for Disease Control and Prevention as well as relevant research to make sure our operations are informed by the best available information.
Monochloramine Talking Points
Utility Manager/Utility Staff

1. Disinfection of drinking water is vital to protect public health from waterborne diseases. Drinking water disinfection has made many once-common diseases, like typhoid and cholera, a thing of the past in the United States, Canada and other developed countries.

2. The United States Environmental Protection Agency (US EPA) has enacted new rules in recent years to reduce potential cancer causing disinfection byproducts in drinking water.
   - Disinfection byproducts form when chemical disinfectants combine with naturally occurring organic and inorganic materials in water.

3. We are committed to providing drinking water that maximizes public health and minimizes potential health risks. To protect public health and meet the US EPA's new requirements, (insert utility name) will begin using monochloramine in (insert quarter and year) as a secondary disinfectant.

4. Maintaining a level of disinfection in the distribution system is required to keep water safe. The two options for distribution system disinfection are chlorine and monochloramine, both of which have benefits and drawbacks.
   - We have selected monochloramine because it is an effective, long-lasting drinking water disinfectant that reduces the potential risk associated with regulated disinfection byproducts in tap water. (Insert other reasons as appropriate.)

5. Today, more than one in five Americans use drinking water treated with monochloramine.
   - Monochloramine has been safely and successfully used by water utilities for more than 90 years. Boston, Dallas, Houston, San Diego, San Francisco, Tampa Bay, Miami, Denver, Philadelphia, Minneapolis and many other cities are all successfully using monochloramine to treat drinking water.

6. Monochlorine is safe for drinking, cooking and all typical uses, however there are special circumstances where monochloramine must be removed:
   - Monochloramine must be removed from water used for kidney dialysis.
   - Monochloramine must be removed from water used when keeping pets like fish and some amphibians.

7. US Environmental Protection Agency research and experience to-date indicates monochloramine is safe and beneficial at levels typically used to treat drinking water.
   - US EPA recognizes monochloramine as a best available technology under the Safe Drinking Water Act.
   - We will continue to monitor the recommendations of U.S. Environmental Protection Agency and Centers for Disease Control and Prevention as well as relevant research to make sure our operations are based on the best available information.

8. The conversion to monochloramine will have a (insert dollar impact) on our water rates. For a homeowner that uses 4,000 gallons per month, that means an addition (insert dollar impact) on the homeowner's water bill.
Monochloramine Talking Points

Evaluate and tailor to your utility’s circumstances.

1. Our water meets—and will continue to meet—all local, state and federal standards. Our goal is to meet these standards, maximize public health and minimize potential health risks.
   - To date, we’ve invested (insert dollar amount) in our infrastructure to improve water quality.
   - We need to invest (insert dollar amount) more to further reduce regulated disinfection byproducts in tap water.

2. Monochloramine was selected to help us reduce disinfection byproducts and meet federal and state standards. Monochloramine provides longer-lasting disinfection, reduces regulated disinfection byproducts, has a proven track record of performance in cities across the country, and is an affordable option for our community.
   - Today, more than one in five Americans use drinking water treated with monochloramine.
   - Monochloramine has been safely and successfully used by water utilities for more than 90 years in cities like Boston, Dallas, Houston, San Diego, San Francisco, Tampa Bay, Miami, Denver, Philadelphia, Minneapolis and more.

3. Water utilities, like public health agencies, must make decisions in the best interest of the overall public. Disinfecting drinking water is required to prevent water-borne diseases and protect public health.

4. US Environmental Protection Agency research and experience to-date indicates monochloramine is safe and beneficial at levels typically used to treat drinking water.

5. Our staff will continue to monitor the recommendations of U.S. Environmental Protection Agency and Centers for Disease Control and Prevention as well as relevant research to make sure our operations are based on the best available information.

6. With the conversion to monochloramine, our customers will receive high-quality drinking water that meets or surpasses stringent regulatory standards.
   - Our staff plans to use/are using accurate and reliable equipment to ensure monochloramine in our system meets all regulatory standards.

7. The conversion to monochloramine will have a (insert dollar impact) on our water rates. For the average homeowner that uses (insert gallons) per month, that means an additional (insert dollar impact) on the homeowner’s water bill.
Monochloramine Fact Sheet

To meet new federal drinking water regulations, (insert utility) will change its water treatment process in (insert quarter and year). Effective water treatment includes disinfection that kills disease-causing organisms in water. The practice of disinfecting drinking water has made many once common diseases, like typhoid and cholera, a thing of the past in the United States, Canada and other developed countries. In fact, the US Centers for Disease Control and Prevention recognizes the control of infectious diseases as a result of cleaner water and improved sanitation as one of the top 10 public health achievements of the 20th century.

Federal and state regulations require (insert utility name) to maintain a disinfectant in our distribution system to protect public health. The two options are chlorine and monochloramine, both of which have benefits and drawbacks. Chlorine and monochloramine both produce disinfection byproducts. Disinfection byproducts form when chemical disinfectants react with plant matter and other naturally occurring materials in the water. Two regulated disinfection byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs).

(insert utility name) worked with (insert regulatory agency, health department, other stakeholders, etc) and selected monochloramine because it produces lower levels of regulated disinfection byproducts, (insert reason), and (insert reason).

➤ (insert utility name) is committed to providing drinking water that maximizes public health and minimizes potential health risks. Using monochloramine in our distribution system is part of that commitment.

➤ Monochloramine is an effective, long-lasting drinking water disinfectant that reduces the potential risk associated with regulated disinfection byproducts in tap water.

➤ Today, more than one in five Americans use drinking water treated with monochloramine. Monochloramine has been safely and successfully used by water utilities for more than 90 years. Boston, Dallas, Houston, San Diego, San Francisco, Tampa Bay, Miami, Denver, Philadelphia, Minneapolis and many other cities are all successfully using monochloramine to treat drinking water.

➤ While monochloramine is safe for drinking, cooking and all typical uses, there are special circumstances where monochloramine must be removed. Monochloramine must be removed from water used for kidney dialysis and from water used when keeping pets like fish and some amphibians.

➤ The World Health Organization and the US EPA consider monochloramine a safe, effective treatment method of reducing the potential health risk from prolonged exposure to regulated disinfection byproducts.

➤ Utilities that use monochloramine often experience fewer taste and odor complaints than utilities using free chlorine.

➤ The conversion to monochloramine will have a (insert dollar impact) on our water rates. For the average homeowner who uses XX gallons per month, that means (insert dollar impact) on the homeowner’s water bill.
Monochloramine Consumer Brochure

Copy and layout to be customized by each utility.

BROCHURE TITLE
Sample title: Water Treatment Changes on Tap

INSIDE
Scientific research and regulatory changes are leading (insert utility name) to change its water treatment process, ensuring the water we deliver to your tap is of the highest quality.

During the (insert quarter) of (insert year), (insert utility name) will begin using monochloramine as a final step in our disinfection process. Monochloramine is an important part of our commitment to maximizing public health and minimizing potential health risks. With this change, our customers will receive drinking water with improved taste and odor that meets or surpasses stringent standards set by the United States Environmental Protection Agency (US EPA).

SUB: Affordable and Safe
COPY: Monochloramine is an effective, affordable means of maintaining water quality in our pipelines to protect the public from waterborne diseases. Monochloramine disinfection lasts longer than chlorine alone and produces lower levels of potentially harmful regulated disinfection byproducts.

Today, more than one in five Americans use drinking water treated with monochloramine.

Monochloramine has been safely and successfully used by water utilities for more than 90 years. Boston, Dallas, Houston, San Diego, San Francisco, Tampa Bay, Miami, Denver, Philadelphia, Minneapolis and many other cities are all successfully using monochloramine to treat drinking water.

The use of monochloramine provides the following:

➤ Meets stringent water quality standards set by the US EPA.
➤ Is cost effective when compared to other options for disinfecting drinking water.
➤ Reduces the levels of potentially harmful regulated disinfection byproducts.
➤ Produces a more stable disinfectant that works for a longer period of time in the pipelines that deliver water to our customers.
➤ Improves the taste and smell of water, especially for people who are sensitive to chlorine.
SUB: Special Precautions for Some Customers

COPY: US EPA research and experience to-date indicates monochloramine is safe and beneficial at levels typically used to treat drinking water. This means monochloramine-treated water is safe for drinking, cooking and all typical uses. However, there are two special circumstances where monochloramine must be removed:

➤ Monochloramine must be removed from water used for kidney dialysis.

➤ Monochloramine must be removed from water used when keeping aquatic pets like fish and some amphibians.

SUB: How will This Change Affect my Water?

COPY: Water containing monochloramine meets stricter health standards and is safe for all typical uses, such as drinking, cooking and bathing. For the most part, you will notice only better tasting and smelling water.

In preparation for our transition to monochloramine, we will be flushing out our distribution system. In the process of flushing, some customers may notice a temporary discoloration, as well as sediment. These impacts are similar to those experienced when a water main is replaced or routine maintenance is performed on the water distribution system and will cease as the system stabilizes. Any problems can usually be resolved by running cold tap water for 2 to 3 minutes.

SUB: Frequently Asked Questions

COPY:

Why monochloramine?
Monochloramine is safe and affordable, and has been used by water utilities for more than 90 years. US EPA recognizes monochloramine as a best available technology under the Safe Drinking Water Act.

Is it safe?
US EPA states that research and experience to-date indicates monochloramine is safe and beneficial at levels typically used to treat drinking water. In fact, the World Health Organization and the US EPA consider monochloramine a safe, effective treatment method for reducing the potential health risks associated with prolonged exposure to regulated disinfection byproducts.

What about dialysis patients?
Monochloramine, at levels used to disinfect drinking water, is harmful to dialysis patients when it directly enters the bloodstream. Monochloramine must be removed from water before using it for kidney dialysis. (Insert utility name) is working with representatives of local hospitals and dialysis treatment centers to educate them about this change. If you are a dialysis patient or have questions, call your physician or the dialysis center nearest you.

Kidney dialysis patients can safely drink, cook and bathe in monochloramine-treated water. This is because the digestive process neutralizes monochloramine before it enters the bloodstream.
What about fresh and saltwater pet owners?

Monochloramine, like chlorine, must be removed from water used for keeping live fish, amphibians and other aquatic life. Monochloramine is harmful to fish, amphibians and other aquatic life when it enters the bloodstream from water that passes through their gills. To protect Koi fish, lobster, shrimp, frogs, turtles, snails, clams and live coral and other aquatic pets, use a treatment product that removes monochloramine. These products are readily available at most pet supply stores and aquarium dealers. Dogs, cats, birds and other animals can safely drink water treated with monochloramine.

Leaving water to sit for several days is not an effective method for removing monochloramine. Monochloramine is longer lasting than chlorine and will not easily dissipate from water.

How will the monochloramine treatment process be monitored?

(Insert utility name here) plans to use/are using accurate and reliable equipment to ensure monochloramine in our system meets all regulatory standards. Water chemistry throughout our system will be/is monitored constantly so that we can adjust our treatment process if needed.

HIGHLIGHTED AREA

Summary of Changes

To meet stringent standards set by the US EPA, (insert utility name) will begin using monochloramine in its disinfection process.

➤ Monochloramine is safe and effective, having been used for decades across North America, and reduces levels of regulated disinfection byproducts.

➤ The process is an affordable way to provide safe drinking water.

➤ The change will provide better tasting and smelling water.

➤ Monochloramine must be removed from water before using it for kidney dialysis or for keeping fish and other aquatic animals, both freshwater and saltwater.

For more detailed information about how your area may be affected by monochloramine, please visit (insert utility wesite here) or call (insert utility phone number here).

LOGO
Monochloramine Advertisement

Use the copy provided here to design your own newspaper ad.

HEADER

Clean Water—Pure and Simple
A change is coming to your drinking water. In (insert month, insert year), (insert utility name) will begin using monochloramine as a final step in our water disinfection process.

SUBHEAD

Advances in Science and Water Quality
Using monochloramine allows us to provide you with water that meets higher quality and safety standards set by the US Environmental Protection Agency. Monochloramine is affordable and effective in providing clean, healthy drinking water.

SUBHEAD

Special Note to Dialysis Patients and Providers
Monochloramine is perfectly safe for humans and furry, four-legged friends to bathe in and drink. However, like chlorine, monochloramine must be removed from water before using it in kidney dialysis. For this reason, local dialysis providers have been informed of the change to ensure the safety of their patients.

Protecting Fish and Amphibians
Monochloramine must also be removed from tap water before it’s used for fish, amphibians and other aquatic life. Protect aquatic life by using treatment products to remove monochloramine from tap water. These products are readily available at most pet supply and aquarium dealers. For more details go to your pet store or go to (insert relevant utility web page).

For more information about monochloramine, please call (insert phone number) or visit (insert utility website).
**Monochloramine Public Service Announcements**

Use the following text to record 15-second and 30-second PSAs for your local television and radio stations.

**:30**

A change is coming to your drinking water. In *(insert month)*, *(insert utility name)* will begin using monochloramine to treat your water. Most people won’t notice a change, but dialysis patients and those who keep fish, amphibians and other aquatic life need to take special precautions. Find out more at *(insert phone number)* or *(insert Web site)*.

**:30**

In *(insert month)*, your drinking water treatment will change. The change is good for our water quality, but dialysis patients and those who keep fish, amphibians and other aquatic life need to take special precautions. Find out more at *(insert phone number)* or *(insert Web site)*.

**:15**

In *(insert month)*, *(insert utility name)* will begin using monochloramine, which must be removed from tap water used for aquariums. To learn more, go to *(insert Web site)*.
Monochloramine Questions and Answers

The following Questions and Answers document is intended for general audiences. However, a utility may need to prepare more technical Q&As to address the information needs of specific audiences. The Exhibits section of this toolkit contains a number of helpful Q&A documents, including US EPA Q&As and San Francisco Public Utilities Q&As.

General Questions

What is drinking water disinfection?
Disinfection inactivates disease-causing organisms in water. Disinfection uses either a chemical or physical process that kills microorganisms like bacteria, viruses and protozoa. Chemical disinfectants include chlorine, monochloramine and ozone. Ultraviolet light disinfection is a physical process. There are two types of disinfection, primary disinfection and secondary disinfection.

What is primary disinfection and secondary disinfection?
Primary disinfection first inactivates or kills microorganisms. Secondary disinfection maintains a disinfectant level in the pipelines to kill any organisms that may recover from primary treatment or be introduced into the distribution system through main breaks, leaks or backflow.

Why is disinfection important?
Disinfection of drinking water is vital to protect public health from waterborne diseases. The practice of disinfecting drinking water has made many once-common diseases, like typhoid and cholera, a thing of the past in the United States, Canada and other developed countries. In fact, drinking water disinfection’s control of infectious diseases is considered one of the top 10 public health achievements of the 20th Century by the Centers for Disease Control and Prevention (CDC).

Why is my drinking water provider changing to monochloramine?
(Insert utility name) is changing to monochloramine as a secondary disinfectant to meet the United States Environmental Protection Agency’s (US EPA) new rules that were enacted to reduce the levels of certain regulated disinfection byproducts in drinking water.

Why are disinfection byproducts a public health concern?
Some disinfection byproducts are regulated by the US EPA because they pose a potential health risk if consumed at certain levels over many years. New rules reduce disinfection byproduct exposure and related potential health risks. Specifically, the Stage 2 Disinfection Byproducts Rule has more stringent standards and monitoring requirements for two groups of disinfection byproducts, which are suspected carcinogens: trihalomethanes (THM) and haloacetic acids (HAA5).
What is monochloramine?

Monochloramine is a chemical compound of chlorine and ammonia, commonly used as a diluted solution to disinfect drinking water before it is delivered to homes. Monochloramine is formed using low chemical concentrations in a controlled environment. Monochloramine (NH2Cl) should not be confused with dichloramines (NCl2) or trichloramines (NCl3), two chemically distinct and separate compounds.

How long has monochloramine been used as a drinking water disinfectant?

How many people receive drinking water that is treated with monochloramine?

Monochloramine has been safely and successfully used by water utilities for more than 90 years. More than one in five Americans uses drinking water treated with monochloramine. Boston, Dallas, Houston, San Diego, San Francisco, Tampa Bay, Miami, Denver, Philadelphia, Minneapolis and many other cities are all successfully using monochloramine to treat drinking water.

What other treatment options did the utility examine before deciding on monochloramine?

(Insert utility name) looked at a number of options before deciding on monochloramine. In our decision-making process, we examined (insert discussion on the options explored, and what factors affected the decision).

Why did the utility select monochloramine over other options?

Monochloramine was selected for (insert utility name) because it forms fewer disinfection byproducts. It is also more stable and longer lasting than free chlorine. (Insert utility name) also selected monochloramine because:

➤ (Reason #1)
➤ (Reason #2)
➤ (Reason #3)

Will I notice a change in the taste or odor of my water?

Utilities that use monochloramine often experience fewer taste odor complaints than utilities using free chlorine.

Will there be any noticeable changes to my water as you make the conversion?

Some temporary impacts may be noticed in isolated areas as the monochloramine-treated water is introduced into the distribution system. Some customers may notice a temporary variation in water color, as well as possible sediment in the water. These temporary impacts to water quality are similar to those experienced when a water main is replaced or routine maintenance is performed on the water distribution system. As the system stabilizes, these temporary impacts will diminish.

What should I do if I notice sediment in my water?

The sediment may be the result of flushing the pipeline to purge the chlorinated water and make way for the new monochloramine-treated water. If you do experience some discoloration or sediment, try running cold water in your sink or bathtub for three to five minutes. If that doesn’t clear up the problem, contact us at (insert phone number).

How will the monochloramine treatment process be monitored?

(Insert utility name here) will use accurate and reliable equipment to ensure monochloramine in our system meets all regulatory standards.
Will this change increase my water bill?

The transition to monochloramine is expected to have modest water rate impacts. For the average homeowner who uses (insert gallons) gallons per month, that means an additional (Insert dollars) dollars on the homeowner’s water bill.

When will the change to monochloramine take place?

(Insert utility name) expects to make the change in (insert quarter or month) (insert year). It is difficult to pinpoint an exact date as a number of operational changes must be made and permits obtained before the conversion.

Where I can get more information?

➤ (Insert relevant utility web page)
➤ Stage 2 DBP Rule— www.epa.gov/safewater/disinfection/stage2/regulations.html
➤ Chloramines in Drinking Water— www.epa.gov/safewater/disinfection/chloramine/index.html
➤ US EPA’s Questions and Answers on Chloramines— www.epa.gov/ogwdw/disinfection/chloramine/pdfs/all29_q.pdf
➤ San Francisco Public Utilities Comission— www.sfwater.org/mto_main.cfm/MC_ID/13/MSC_ID/166/MTO_ID/399
➤ NSF Certified Drinking Water Treatment Product Listings— http://www.nsf.org/certified/dwtu/

Health-Related Questions

Is monochloramine safe?

US EPA states that research and experience to-date indicates monochloramine is safe and beneficial at levels typically used to treat drinking water. In fact, the World Health Organization and the US EPA consider monochloramine a safe, effective treatment method of reducing the potential health risk from regulated disinfection byproducts. The US EPA evaluated monochloramine safety and set the standard for monochloramine use at a level where no human health effects are expected to occur.

Can I drink and cook with monochloramine-treated water?

Yes. Monochloramine-treated water will meet or surpass all local, state and federal guidelines for drinking water quality. You can safely drink the water, cook with it and bathe in it. However, like chlorine, monochloramine-treated water must be conditioned or filtered before using it for fish and other aquatic life, and dialysis centers must also take special precautions.

What precautions must dialysis providers take?

Kidney dialysis patients can safely drink, cook and bathe in water disinfected with monochloramine. The digestive process neutralizes monochloramine before it enters the bloodstream. But, like chlorine, monochloramine must be removed from water to be used in kidney dialysis machines. (Insert utility name) is working with representatives of local hospitals and dialysis treatment centers to educate them about this change. If you are a dialysis patient or have questions, call your physician or the dialysis center nearest you.

Is it safe to wash an open wound with monochloramine-treated water?

Yes. When cleaning an open wound, virtually no water can enter the bloodstream.
I've heard that some people have experienced rashes or breathing problems. Is monochloramine to blame?

In recent years, a small percentage of consumers have expressed concern over health symptoms they believe are connected to monochloramine. Among the reported symptoms are respiratory problems, skin irritation and digestive problems. While the actual causes of the reported symptoms are undetermined, it is possible that some individuals may be sensitive to monochloramine, just as some individuals are sensitive to chlorine.

Additionally, if water containing monochloramine exceeds regulatory limits due to improper operation, irritation to the eyes, nose and stomach can occur. *(Insert utility name)* will use accurate and reliable equipment to ensure monochloramine in our system meets all regulatory standards.

If you experience symptoms believed to be connected to monochloramine, please immediately contact your physician, *(insert public health agency)* and *(insert utility name)*.

What do the experts say about the reported problems?

Studies conducted to-date by the US EPA and CDC do not conclude monochloramine use has negative health effects at levels used in drinking water.

Dr. Jeffrey K. Griffiths of the Tufts University School of Medicine rendered an April 19, 2007 opinion regarding monochloramine use in San Francisco Public Utilities. In the letter, Dr. Griffiths writes, “There is no scientific literature to support the contention that chloramine or ammonia exposures of any significance occur because of respiration. The levels of ammonia found in chlorinated water do not act as a skin irritant given their very low levels, and the levels of ammonia found in chloraminated water are dwarfed by the amounts of ammonia found in foodstuffs.”

It may be possible that some individuals are sensitive to monochloramine. Any citizen with a health concern is encouraged to contact his or her physician.

Will monochloraminated water interact with my medications?

There are no known interactions between monochloramine-treated water and any kind of medication. People on medication should not experience any reactions caused by drinking monochloramine-treated water. If you have a specific concern, please contact your physician.

Other Household Questions

Will I have to change the way I treat my swimming pool water?

No additional treatment should be necessary. However, you might find that there is a slight increase in chlorine demand. That means that you may have to add a little more chlorine than usual to get to the level you typically maintain in the pool after you top it off with tap water.

Will chloramine irritate my skin or lungs while swimming in a pool?

Improper pool maintenance can lead to the formation of trichloramine, a chemical related to monochloramine, that has been linked to breathing problems. Trichloramine forms in swimming pools when ammonia from sweat and urine reacts with chlorine.

Inadequate chlorine addition or improper pH levels can contribute to trichloramine formation. Maintaining a pH level of 7.2 to 7.8 in pools is necessary to control trichloramine.

Will my home filtration system be affected?

You may find that you have to replace filters (particularly activated charcoal filters) more often than before, though the difference should be negligible. Be sure to follow manufacturer's recommendations. Check with the manufacturer if you are interested in finding out if your granular activated filter removes chlorine and monochloramine.
Will my plants be affected?
No. Plants, vegetables, fruit and nut trees are not affected by monochloramine-treated water.

Will the switch to monochloramine increase lead levels in my drinking water?
While monochloramine is not more corrosive toward metals than chlorine, it does change the chemistry of drinking water. In certain cases this may cause lead from pipes or home plumbing to dissolve into the water. However, with water quality testing and monitoring, a utility can evaluate and optimize its corrosion control treatment to reduce the possibility of this occurring. Find out more about lead in drinking water at (link to lead fact sheets).

Pets, Aquatic Life, Environmental Questions

Is monochloramine safe for my salt and freshwater fish?
Chlorine and monochloramine are both toxic to fish and aquatic life. Monochloramine is harmful to fish and amphibians when it enters the bloodstream from water that passes through their gills. Therefore, like chlorine, monochloramine must be removed from water used for keeping live fish, amphibians and other aquatic animals. This includes Koi fish, lobster, shrimp, frogs, turtles, snails, clams and live coral.

To protect fish and amphibians, use treatment products to remove monochloramine from tap water. These products are readily available at most pet supply stores and aquarium dealers. Leaving water to sit for several days is not an effective method for removing monochloramine.

Why can’t I let my tap water sit a few days to remove monochloramine?
That works with chlorine.
Monochloramine is longer lasting than chlorine and will not dissipate from tap water like chlorine. You must use drops, tablets or granular activated carbon filters that are specifically designed to remove monochloramine.

Is monochloramine-treated water safe for my dog, cat, ferret, monkey, parrot, parakeet, etc.
Yes.

If I water the lawn, will the runoff harm the environment?
If you use tap water to water your lawn, the small amount of monochloramine in the water will be neutralized by the soil. Lawn watering is not expected to have an adverse effect on plants or nearby aquatic life.

If cows drink monochloramine-treated water, will monochloramine be in their milk?
No. Monochloramine is broken down by the digestive process and would not enter cows’ milk.
Improving the Quality of Your Drinking Water

(Insert Name)
(Insert Title)
(Insert Utility Name)
Protecting Public Heath

- Water treatment prevents waterborne diseases
  - Cholera
  - Typhoid

- Primary disinfection—first inactivates/kills disease-causing organisms

- Secondary disinfection—a level of disinfection in the distribution pipelines
United States Environmental Protection Agency enacted stringent standards for two groups of disinfection byproducts:

- Trihalomethanes
- Haloacetic Acids

Disinfection byproducts
Changing to Monochloramine

- Longer lasting
- Less reactive
  - Fewer regulated disinfection byproducts
- Considered safe and effective
- Affordable
- Better tasting water
Analyzing the Options

› (To be customized by each utility – list bullets/show pictures describing other options that were explored)
Monochloramine Use

- Currently used by more than 1 in 5 Americans
- Used more than 90 years
- Used in San Diego, San Francisco, Dallas, Houston, Tampa Bay, Miami, Denver, Philadelphia, Minneapolis and more.
Facts About Monochloramine

- Safe to drink, cook and bathe in
- Safe for pets
- Safe for open wounds
- Does not interact with medication
- Special concerns:
  - Dialysis patients
  - Aquarium/aquatic life
During conversion you may notice:
- Variation in water color
- Sediment in water

System monitoring
Important Info For Customers

- Water rates
- Swimming pool maintenance
- Home filtration system
- Edible plants
- Lead levels in tap water
For More Information ...

- Insert Utility Name
- Insert Utility Web Address
- Insert Phone Number
Monochloramine HOA Sample Article

Water Treatment Changes Coming to (insert community name) in (insert year)

Beginning (insert quarter) of (year), (insert utility name) will begin using monochloramine in our drinking water distribution system. Homeowners in (insert community/HOA name) will continue to receive high-quality drinking water that meets or surpasses stringent regulatory standards.

Monochloramine is an effective, long-lasting drinking water disinfectant. Disinfection of drinking water is vital to protecting public health from waterborne diseases, and has made many once-common diseases, like typhoid and cholera, a thing of the past in the United States, Canada and other developed countries.

Today, more than one in five Americans receive drinking water treated with monochloramine. Monochloramine has been safely and successfully used by water utilities for more than 90 years and is currently used in Boston, Dallas, Houston, San Diego, San Francisco, Tampa Bay, Miami, Denver, Philadelphia, Minneapolis and many other cities.

(Insert utility name) is committed to providing drinking water that maximizes public health and minimizes potential health risks. Monochloramine is part of that commitment and provides the following benefits:

➤ Reduced health risk associated with prolonged exposure to regulated disinfection byproducts.
➤ Improved drinking water taste and odor.
➤ Modest water rate impacts; for the average homeowner that uses (insert gallons) gallons per month, that means an additional (insert dollars) dollars on the homeowner’s water bill.

While monochloramine is safe for drinking, cooking and all typical uses, there are special circumstances where monochloramine must be removed:

➤ Monochloramine must be removed from water used for kidney dialysis.
➤ Monochloramine must be removed from water used when keeping pets like fish and some amphibians.

In preparation for our transition to monochloramine, we will be flushing out our distribution system. In the process of flushing, some customers may notice a temporary discoloration, as well as sediment. These impacts are similar to those experienced when a water main is replaced or routine maintenance is performed on the water distribution system and will cease as the system stabilizes. Any problems can usually be resolved by running cold tap water for 2 to 3 minutes. If you have questions, please contact (insert utility name) at (insert utility phone number) or visit our website at (insert utility website).
Subject: Alert Regarding Change in Water Treatment

Dear (Insert Company Name):

Residents and businesses in (insert city or county name) will soon begin receiving water treated with monochloramine. Monochloramine is an effective, long-lasting disinfectant that reduces the potential risk associated with regulated disinfection byproducts in tap water.

While monochloramine-treated water is safe for all typical uses, it is harmful to fish and other fresh and salt water aquatic life. **Monochloramine must be removed from tap water that is used for keeping live fish and other aquatic life.**

We hope that you can help us inform residents of precautions they need to take to protect their fish or aquatic life. We’ve produced signs for display in pet stores and other retail outlets to inform customers. In addition, the enclosed card is available in larger quantities so that you may give them to customers who keep live fish in aquariums or ponds.

You can request the point-of-purchase display and take-one cards by calling (insert name) at (insert phone number). More information is also available at (insert website).

(Insert utility name) will begin using monochloramine as a final step in our disinfection process during the (insert quarter) of (insert year). Thank you for your assistance in communicating this very important change to your staff and customers.

Sincerely,

(Insert name and title of utility general manager or other utility leader)
Monochloramine—Businesses with Live Fish Letter

To be customized by each utility. Send to businesses that keep live fish or aquatic animals (e.g. seafood restaurants, botanic gardens) with sample point-of-purchase “take one” card.

Date

Company Name
Address
City, State, Zip

Subject: Alert Regarding Change in Water Treatment

To Whom It May Concern:

Please be alerted that a water treatment change is being made that will require you to take appropriate measures to protect fish and other aquatic life in aquariums and ponds. In (insert quarter) (insert year), (insert utility name) will begin providing monochloramine-treated water to our customers. Monochloramine is an effective, long-lasting disinfectant that reduces the potential risk associated with regulated disinfection byproducts in tap water. Monochloramine will also improve the taste and odor of our water, and allow us to provide water that meets or surpasses stringent standards set by the United States Environmental Protection Agency.

While monochloramine-treated water is safe for all typical uses, it can kill fish and other aquatic life if it directly enters the blood stream from water that passes through their gills. For this reason, monochloramine must be removed from water used for keeping live fish, amphibians and other aquatic life, including Koi fish, lobster, shrimp, frogs, turtles, snails, clams and live coral. You can remove monochloramine with treatment products readily available at most pet supply stores and aquarium dealers.

Leaving water to sit for a few days or boiling water are not effective methods for removing monochloramine. This is because monochloramine is longer lasting than chlorine and will not dissipate from water.

Enclosed is an informational card that provides detailed information about monochloramine. If you would like additional cards, they are available in greater quantities at no charge. In fact, similar cards have already been distributed to most area pet stores. If you have any questions or if you would like to order a supply of informational cards, please call (insert name) at (insert phone number). More information is also available at (insert website).

Sincerely,

(Insert name and title of utility general manager or other utility leader)
Point-of-Purchase Take-one Card/Flyer
To be customized by each utility.

FRONT COVER
There’s nothing fishy about monochloramine ...

COPY
The water supplied by (insert utility name here) will soon be treated with monochloramine. With this change, our customers will receive drinking water with improved taste and odor that meets or surpasses stringent standards set by the United States Environmental Protection Agency (US EPA).

People can safely drink and bathe with water treated with monochloramine, but it can be harmful to fish and aquatic life. Monochloramine must be removed from tap water used for keeping fresh and saltwater fish.

What types of aquatic life are affected?
Monochloramine, like chlorine, is harmful to fish and other aquatic life—including Koi fish, lobster, shrimp, frogs, turtles, snails, clams and live coral—when it directly enters the blood stream from water that passes through the gills.

What does this mean for aquarium and pond owners?
Monochloramine must be removed from tap water before it can be used in your fresh or saltwater aquarium or pond.

How can I remove monochloramine from my water?
Commercially available water-conditioning agents or activated carbon filters specifically designed to remove monochloramine must be used according to product instructions. These products are readily available at most pet supply stores and aquarium dealers. Chlorine removal agents that are not specifically designed to also remove monochloramine could leave excess ammonia in the water. Too much ammonia could harm aquatic life. Carefully read product instructions to ensure removal of monochloramine and ammonia.

Can I leave water sitting out for a few days to remove monochloramine from tap water?
No. Unlike chlorine, monochloramine does not dissipate when it sits for a few days. Monochloramine is longer lasting and may actually take weeks to dissipate. Therefore, this is not an effective method for removing monochloramine.

Will boiling remove monochloramine?
No. Monochloramine cannot be removed by boiling water or adding salt.

What about other pets?
Dogs, cats, birds and other animals can safely drink water treated with monochloramine, because the digestive process neutralizes monochloramine before it enters the bloodstream.

For additional information, please visit (insert utility website name) or call (insert utility name) at (insert utility phone number).
Monochloramine—Special Information for Pet Stores, Pond and Aquarium Owners

In (insert quarter and year), (insert utility name) will begin using monochloramine as its residual disinfectant in drinking water. This change is being made to comply with nation regulations that reduce allowable levels of two groups of disinfection byproducts that are suspected carcinogens: trihalomethanes (THM) and haloacetic acids (HAA5). (List other reasons as appropriate).

What does this mean for aquarium and pond owners?
Monochloramine, like chlorine, must be removed from water used for keeping live fish, amphibians and other aquatic life. At levels used to disinfect drinking water, monochloramine is harmful to fish and amphibians when it directly enters the bloodstream from water that passes through their gills. Monochloramine must be removed from water used for both freshwater and saltwater life, including Koi fish, lobster, shrimp, frogs, turtles, snails, clams and live coral. Consult a local pet dealer or veterinarian if you are unsure about your pet and monochloramine.

What types of aquatic life are affected by monochloramine?
Monochloramine must be removed from tap water used by Koi fish, lobster, shrimp, frogs, turtles, snails, clams and live coral. Consult a local pet dealer or veterinarian if you are unsure about your pet and monochloramine.

How can I remove monochloramine from my water?
Commercially available water-conditioning agents or activated carbon filters specifically designed to remove monochloramine must be used according to product instructions. These products are readily available at most pet supply stores and aquarium dealers. Chlorine removal agents that are not specifically designed to also remove monochloramine could leave excess ammonia in the water. Too much ammonia could harm aquatic life.

Won’t letting water sit for a few days remove monochloramine from tanks or pond water?
No. Unlike chlorine, which dissipates when water sits for a few days, monochloramine is longer lasting and may take weeks to dissipate. This is not an effective method for removing monochloramine.

How will monochloramine affect ponds?
Monochloramine should be removed from water before adding it to a pond.
Special Information for Kidney Dialysis Patients and Centers

In (insert quarter and year), (insert utility name) will begin using monochloramine as its disinfectant residual in drinking water. This change is being made to reduce exposure to regulated disinfection byproducts and improve public health protection (or insert other reason for change). Today, more than one in five Americans use drinking water treated with monochloramine.

Kidney dialysis patients can safely drink, cook and bathe in water disinfected with monochloramine because the digestive process neutralizes monochloramine before it enters the bloodstream. However, monochloramine is harmful if it directly enters the bloodstream. Therefore, like chlorine, monochloramine must be removed from water to be used in kidney dialysis machines. If not removed, monochloramine can cause life-threatening hemolytic anemia in kidney dialysis patients.

Water purification standards addressing chlorine and monochloramine are already in place the kidney dialysis industry. These standards, set forth by the Association for the Advancement of Medical Instrumentation, require that a nurse, technician or trained caregiver test for both chlorine and monochloramine after the purification process to ensure these chemicals have been removed from the water before it is used in the dialysis machine.

All kidney dialysis patients, even those who receive their treatments from a trained relative or caregiver at home, must be under the care of a kidney dialysis center. All centers in (insert city or county name), as well as hospitals with acute dialysis facilities, have been informed about the addition of monochloramine. These facilities must provide written documentation that they are aware of and have prepared for this change, and that they have informed their patients, including their “self-treating” patients, of this change.
Subject: Alert Regarding Change in Water Treatment

Dear (Insert Name):

Please be alerted that a water treatment change will be made in (insert quarter, insert year) that will require you to take appropriate measures to protect kidney dialysis patients.

In (insert month, insert year), (insert utility name) will begin providing water treated with monochloramine to customers in (insert community name). Monochloramine is an important part of our commitment to maximizing public health and minimizing potential health risks. With this change, our customers will receive drinking water with improved taste and odor that meets or surpasses stringent standards set by the United States Environmental Protection Agency (USEPA).

Monochloramine is of particular concern to dialysis patients because it can cause life-threatening hemolytic anemia. This potential danger can be avoided by treating the tap water with ascorbic acid or by using a granular-activated carbon filter specifically designed to eliminate monochloramine. Additional information about current dialysis standards can be found at the Association for the Advancement of Medical Instrumentation’s website (www.aami.org/publications/standards/dialysis.html) or you can call (insert phone number).

It is essential that appropriate actions be taken to enable your facility, and any home-based patients that you may serve, to test for and remove monochloramine from water before it is used for dialysis fluids.

Your facility may already be testing for monochloramine on a regular basis as it is a widely recognized drinking water disinfectant. In fact, monochloramine has been safely and successfully used by water utilities for more than 90 years.

Thank you for your attention to this important matter.

Sincerely,

(Insert name and title of utility general manager or other utility leader)
Subject: 2nd Alert Regarding Change in Water Treatment

Dear (Insert Name):

In (insert month that first letter was sent), we notified you that a water treatment change will be made in (insert quarter, insert year) that will require you to take appropriate measures to protect kidney dialysis patients. We are still on schedule to begin providing customers with monochloramine-treated water in (insert month, insert year).

As you know, monochloramine is of particular concern to dialysis patients because it can cause life-threatening hemolytic anemia. This potential danger can be avoided by treating the tap water with ascorbic acid or by using a granular-activated carbon filter specifically designed to eliminate monochloramine. Additional information about current dialysis standards can be found at the Association for the Advancement of Medical Instrumentation’s website (www.aami.org/publications/standards/dialysis.html) or you can call (insert phone number).

We ask your facility to undertake the essential task of testing and removing monochloramine from water before it is used for dialysis fluids. Also, home-based patients need to be informed of this change and the necessary steps needed to remove monochloramine before dialysis treatment.

Please acknowledge that you are aware of and prepared for the upcoming change to monochloramine-treated water by signing below and sending back to us by fax (insert fax number) or by email (insert email address) no later than (insert date).

Thank you for your attention to this important matter.

Sincerely,

Signature

__________________________________________________________________________________

Print name and title

(Insert name and title of utility general manager or other utility leader)
To be sent certified mail to those centers that do not fax/email back a signed acknowledgement.

Date

Name
Title
Company Name
Address
City, State, Zip

**Subject: Final Alert Regarding Change in Water Treatment**

Dear *(Insert Name)*:

We have not received a signed acknowledgement from your company indicating that you are aware of and prepared for the upcoming change in water treatment. In *(insert month, insert year)*, residents and businesses in *(insert community)* will begin receiving water treated with monochloramine, which will require you to take appropriate measures to protect kidney dialysis patients.

Monochloramine can cause life-threatening hemolytic anemia to dialysis patient. This potential danger can be avoided by treating the tap water with ascorbic acid or by using a granular-activated carbon filter specifically designed to eliminate monochloramine. Additional information about current dialysis standards can be found at the Association for the Advancement of Medical Instrumentation’s website (www.aami.org/publications/standards/dialysis.html) or you can call *(insert phone number)*.

It is essential that appropriate actions be taken to enable your facility, and any home-based patients that you may serve, to test for and remove monochloramine from water before it is used for dialysis fluids.

Thank you for your attention to this important matter.

Sincerely,

*(Insert name and title of utility general manager or other utility leader)*
What Health Care Professionals Should Know About Monochloramine

The following information is designed to serve as a starting point for a fact sheet for local physicians. The sheet can be distributed in coordination with a utility’s primacy agency and/or local health department. Utilities should review and modify as necessary.

Managing Disinfection Byproducts
Disinfection of drinking water is vital to protect public health from waterborne diseases. The practice of disinfecting drinking water has made many once-common diseases, like typhoid and cholera, a thing of the past in the United States, Canada and other developed countries.

However, disinfectants can react with organic matter found in raw water to form disinfection byproducts, which may pose health risks with prolonged exposure. The United States Environmental Protection Agency (US EPA) has enacted new rules in recent years to reduce the potential risk associated with disinfection byproducts in drinking water. Specifically, the Stage 2 Disinfection Byproducts Rule has more stringent standards and monitoring requirements for two groups of disinfection byproducts: trihalomethanes (TTHM) and haloacetic acids (HAA5). The goal of the regulation is to reduce disinfection byproduct exposure, limit related potential health risks and provide improved public health protection.

(Insert utility name) to begin using monochloramine
In (month) (year), (insert utility name) will begin using monochloramine as a disinfectant in our distribution system and continue to use (insert current primary disinfectant) as a primary disinfectant. The primary disinfectant is used first to inactivate microorganisms, like bacteria, viruses and protozoa. Then monochloramine will be used as secondary disinfectant which is maintained in the pipelines to kill any organisms that may recover from primary treatment or be introduced into the distribution system through main breaks, leaks or backflow.

We are committed to providing drinking water that maximizes public health and minimizes potential health risks. Using monochloramine in our system is part of that commitment.

What Patients Need to Know
Water is crucial to health. It makes up, on average, 60 percent of body weight. Every system in the body depends on water. With the conversion to monochloramine, tap water consumers will receive high-quality water that meets or surpasses stringent regulatory standards and protects against potential health risks associated with prolonged exposure to regulated disinfection byproducts.
Water treated with monochloramine is safe for people and animals to drink, and for other typical uses. However, there are special circumstances where monochloramine must be removed from tap water:

- Kidney dialysis treatments and
- Keeping pets like fish and some amphibians

### Important Information About Monochloramine and Dialysis

Kidney dialysis patients can safely drink, cook and bathe in water treated with monochloramine. The digestive process neutralizes monochloramine before it enters the bloodstream. But like chlorine, monochloramine must be removed from water to be used in kidney dialysis machines.

At levels used to disinfect drinking water, monochloramine is harmful if it directly enters the bloodstream. Since water comes into contact with the bloodstream during hemodialysis, very strict water purification standards are already followed by the kidney dialysis industry. These standards are set forth by the Association for the Advancement of Medical Instrumentation (AAMI) and specifically address chloramines. Water purification techniques used for kidney dialysis are already designed to remove both chlorine and chloramines. Patients, caregivers, and dialysis providers should carefully follow the AAMI Standards that address monochloramine.

### About Monochloramine

Monochloramine will provide longer-lasting disinfection as water moves through pipes to our customers. Today, more than one in five Americans use drinking water treated with monochloramine. Monochloramine has been safely and successfully used by water utilities for more than 90 years. Boston, Dallas, Houston, San Diego, San Francisco, Tampa Bay, Miami, Denver, Philadelphia, Minneapolis and many other cities are successfully using monochloramine to treat drinking water.

The US EPA states that research and experience to-date indicates monochloramine safe and beneficial at levels typically used to treat drinking water (for more information, go to www.epa.gov/ogwdw/disinfection/chloramine/pdfs/all29_q.pdf ). Water systems that use monochloramine disinfection must carefully monitor water quality, sometimes adding corrosion inhibitors and making operational adjustments to ensure high-quality water at the tap.

### Monochloramine Chemistry

Monochloramine is a chemical compound of chlorine and ammonia, commonly used as a diluted solution to disinfect drinking water before it is delivered to homes. The formation of monochloramine is done at very low concentrations, measured in parts per million, under stringent drinking water guidelines. Monochloramine formation is far different from the mixing of household chemical cleaners, bleach and ammonia. These chemicals are sold in high concentrations that become hazardous when mixed.

Monochloramine (\(\text{NH}_2\text{Cl}\)) should not be confused with dichloramines (\(\text{NCl}_2\)) or trichloramines (\(\text{NCl}_3\)), two chemically distinct and separate compounds.

### Monochloramine Health Concerns

In recent years, a small percentage of consumers have expressed concern over health symptoms they believe are connected to monochloramine. Among the reported symptoms are respiratory problems, skin irritation and digestive problems. It is possible that some individuals may be sensitive to monochloramine, just as some individuals are sensitive to chlorine. If a water customer experiences symptoms believed to be connected to monochloramine, we ask that that person immediately contact his or her physician, (insert public health agency) and (insert utility name).

We join the US EPA, the Centers for Disease Control and Prevention and the American Water Works Association in encouraging continued research on drinking water disinfection, including the safe use of monochloramine as a disinfectant. We will continue to monitor results and adjust operations based on recommendations from the very best scientific and public health experts.
For More Information:

➤ US EPA’s Stage 2 Disinfection Byproducts Rule—www.epa.gov/safewater/disinfection/stage2/regulations.html

➤ Chloramines in Drinking Water—www.epa.gov/safewater/disinfection/chloramine/index.html

➤ US EPA’s Chloramine Q&A—www.epa.gov/ogwdw/disinfection/chloramine/pdfs/all29_q.pdf


➤ Reference to NSF Testing of Point of Use (POU) / Point of Entry (POE) Devices—www.nsf.org/Certified/dwtu/. [State agency may also certify. If this is true for your state, add information here and consider adding a fourth point to the list about home filters, above.]

Local contacts:

(Refine to include specific utility information and other information as appropriate.)

[Water Utility Name, Contact Person, Phone Number, E-mail, and/or web site address]

[Local Health Department, Contact Person, Phone Number, E-mail, and/or web site address]

[Primacy Agency, Contact Person, Phone Number, E-mail, and/or web site address]
Monochloramine Sample News Release

For additional information, contact:
(insert utility contact name), (insert utility contact number)

(insert utility name) to add new water disinfectant

(insert city, insert state) (insert date)—Beginning (insert month) of (year), (insert utility name) will begin using monochloramine in its water disinfection process. Monochloramine is an effective, long-lasting drinking water disinfectant that reduces the potential risk associated with regulated disinfection byproducts in tap water. Water customers in (insert community names) will be affected by this change.

Federal and state regulations require (insert utility name) to maintain a disinfectant in our distribution system to protect public health. Monochloramine was selected as the method of choice because the US Environmental Protection Agency (US EPA) considers it safe and beneficial at levels typically used to treat water. Additionally, (insert utility name) worked with (insert regulatory agency, health department, other stakeholders, etc) and selected monochloramine because it produces lower levels of disinfection byproducts, (insert reason), and (insert reason).

With the conversion to monochloramine, (insert utility name) customers will receive high-quality drinking water that meets or surpasses stringent US EPA requirements. Today, more than one in five Americans use drinking water treated with monochloramine. Monochloramine has been safely and successfully used by water utilities for more than 90 years. Boston, Dallas, Houston, San Diego, San Francisco, Tampa Bay, Miami, Denver, Philadelphia, Minneapolis and many other cities are all successfully using monochloramine to treat drinking water.

Specifically, the change to monochloramine will:

➤ Reduce the level of regulated disinfection byproducts formed when disinfectants mix with trace quantities of naturally occurring organic substances found in water; some disinfection byproducts are considered harmful with prolonged exposure.

➤ Provide the most economical treatment option available to (insert utility name).

➤ Reduce chlorine taste and odor in tap water.

Although safe for drinking, cooking and all typical uses, monochloramine can be harmful to kidney dialysis patients. These patients can safely drink, cook and bathe in monochloramine-treated water, but monochloramine must be removed from the water used in kidney dialysis machines. Medical centers that perform dialysis or supervise home dialysis are responsible for ensuring water is purified before it enters the dialysis machine. These facilities have been notified of the upcoming change.

Monochloramine is also harmful to fish and other aquatic life when it directly enters the bloodstream from water that passes through their gills. Therefore, monochloramine must be removed from water used for fresh or saltwater aquariums and ponds, or any habitats that include Koi fish, lobster, shrimp, frogs, turtles, snails, clams and live coral. To protect fish and amphibians, use treatment products to remove monochloramine from tap water. These products are readily available at most pet supply stores and aquarium dealers. Leaving water to sit for a few days is not an effective method for removing monochloramine, because monochloramine is longer lasting than chlorine and will not dissipate from water.

Residents can get more information on monochloramine by contacting (insert utility name) at (insert utility phone number) or by visiting our website at (insert utility website)
Monochloramine Guest Editorial

The following is a guest editorial or op-ed piece that a utility may choose to customize and use as needed in its local newspaper(s). Be sure to include a byline.

By: (Insert name and title)

Delivering safe drinking water to (insert community name)’s residents and businesses is a responsibility that (insert utility name) proudly carries each and every day. We know that our efforts protect the public’s health and safety and support our community’s way of life.

An important part of delivering safe drinking water is the process of disinfection. In fact, drinking water disinfection has put an end to a host of dangerous waterborne illnesses, including cholera and typhoid, in the United States, Canada and other developed countries.

Disinfection is a process that kills disease-causing organisms in the water. To prevent the regrowth of these bacteria and organisms, a small amount of disinfectant is maintained in the water as it travels through our pipelines to your home or business.

As science advances and we learn more about water safety, we make adjustments to our treatment processes to assure we are minimizing health risks. The US Environmental Protection Agency (US EPA) has enacted new rules in recent years to reduce potentially harmful disinfection byproducts in drinking water. These disinfection byproducts are believed to be harmful if consumed at high levels over many years.

In the past, (insert utility name) has used chlorine as a secondary disinfectant, but to meet the new federal rule, we are making a change in our process. During the (insert quarter) of (insert year), (insert utility name) will begin using monochloramine as a final step in our disinfection process. Monochloramine was selected because it results in fewer regulated disinfectant byproducts, (list any additional reasons).

We know that change can sometimes raise a lot of questions. When it comes to monochloramine, here are a few facts you should know:

➤ Monochloramine has been safely and successfully used by water utilities for more than 90 years. More than one in five Americans uses drinking water treated with monochloramine.

➤ The World Health Organization and the US EPA consider monochloramine a safe, effective treatment method for reducing the risk associated with regulated disinfection byproducts.

➤ US EPA research and experience to-date indicates monochloramine is safe and beneficial at levels typically used to treat drinking water.

➤ Monochloramine must be removed from water used for kidney dialysis and for keeping life fish or other aquatic life.

The conversion to monochloramine will provide (insert utility name) customers with high-quality drinking water that meets or surpasses stringent regulatory requirements. We are committed to working with the community to facilitate the transition. Once the change is made, we will continue to monitor the recommendations of US EPA and Centers for Disease Control and Prevention as well as relevant research to make sure our operations are based on the best available information.

For more information on our monochloramine conversion, go to (insert website) or call (insert phone number).
Editorial Board Briefing Matrix

Meeting with the editorial board of your daily newspapers on a regular basis is important to keep editors informed about the utility's efforts in a number of areas, including water quality, capital improvements and rates.

The following matrix can help your utility proactively brief an editorial board on the monochloramine issue. We recommend your goal be to provide background information to the editorial board—not to place an editorial. If the monochloramine issue should rise to a level of controversy before you get to the editorial board, we recommend modifying the matrix to specifically address concerns raised in your community.

Here are a few suggestions for briefing the editorial board:

➤ Strategically select your participants, and try to limit the number of attendees from the utility to no more than three. You may want to bring the utility's executive director, water quality officer, public information officer and/or operations director.

➤ Practice before you visit; practice using the matrix and answering difficult questions.

➤ Most editorial board visits have a fixed time allotment, so be on time and stay focused.

➤ At the start of the meeting, introduce your team and briefly state their credentials and your goals for the meeting.

➤ Use the matrix as a handout for the editorial board members so that they can follow along with it. Use it to guide your discussion and keep your team on point.

➤ Start by stating your purpose, indicating you are there only to provide background information (Note: always consider yourself “on the record”).

➤ State the first key point, and then go down the list of supporting information for that key point. Be sure to customize the supporting information using examples from your utility. Repeat this process for the next two key points.

➤ End by letting the editorial board know regulatory and health agencies consider monochloramine a best available technology.

After your comments, editorial board members will likely ask a variety of questions, including many of those listed on the questions and answers.

At most newspapers, the editorial board and newsroom are separate operations. At some papers, however, editorial boards invite their beat reporters to attend briefings. If this is the practice of your paper, you will need to prepare for the editorial board visit accordingly, as the briefing may trigger a news article.

If the beat reporter attends the editorial board briefing, he or she may ask you questions as the meeting concludes—remember you are on the record! The beat reporter may also ask you to stay after the editorial briefing for a more intensive interview. If your schedule allows, conduct the interview, but stipulate a time limit (10 minutes is usually reasonable). Be sure you stay to the same key messages stated during the editorial board meeting.
# Editorial Board Briefing Matrix

**Purpose:** To inform the editorial board about what (insert utility name) is doing to ensure high-quality drinking water and meet new regulations regarding disinfection byproducts in public drinking water systems.

<table>
<thead>
<tr>
<th>Key Points</th>
<th>Supporting Information</th>
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| 1. The United States Environmental Protection Agency (US EPA) has enacted new rules in recent years to reduce the formation of two groups of suspected cancer-causing compounds. | ▪ All commonly used chemical disinfectants form disinfection byproducts (DBPs).  
▪ DBPs form when chemical disinfectants combine with naturally occurring organic and inorganic materials in water.  
▪ The Stage 2 Disinfection Byproducts Rule has more stringent standards and monitoring requirements for two groups of disinfection byproducts, which are suspected carcinogens: trihalomethanes (TTHM) and haloacetic acids (HAA5). Note: If reason for using monochloramine differs, adjust to your utility circumstances.  
▪ The goal of the regulation is to reduce disinfection byproduct exposure and related potential health risks, and improve public health protection. |
| (Evaluate and tailor response to your utility's circumstances.) | |
| 2. To meet the US EPA’s new rule and continue providing high-quality water to our customers, (insert utility name) will begin using monochloramine in (insert quarter and year) as a secondary disinfectant and continue to use ___________ as a primary disinfectant. | ▪ Disinfection of drinking water is vital to protecting public health from waterborne diseases like cholera, typhoid and dysentery.  
▪ Federal and state regulations require (insert utility name) to maintain a disinfectant in our distribution system to protect public health.  
  ▪ The two options are chlorine and monochloramine, both of which have benefits and drawbacks.  
▪ (Insert utility name) selected monochloramine because it is:  
  ▪ An effective, long-lasting disinfectant that reduces the potential risk associated with regulated disinfection byproducts in tap water.  
  ▪ Recognized by US EPA as a best available technology under the Safe Drinking Water Act.  
  ▪ Considered by US EPA as safe and beneficial at levels typically used to treat drinking water.  
  ▪ Affordable.  
▪ More than one in five Americans uses drinking water treated with monochloramine. It has been safely and successfully used by water utilities for more than 90 years; is currently used by San Diego, San Francisco, Dallas, Houston, Tampa Bay, Miami, Denver, Philadelphia, Minneapolis and more.  
▪ Utilities that use monochloramine often experience fewer taste odor complaints than utilities using free chlorine. |
### 3. While monochloramine is safe for drinking, cooking and all typical uses, there are special circumstances where monochloramine must be removed.
- Monochloramine must be removed from water used for kidney dialysis.
- Monochloramine must be removed from water used when keeping pets like fish and some amphibians.
- At levels used to disinfect drinking water, monochloramine is harmful when it directly enters the bloodstream, such as in the dialysis process or when it enters the bloodstream of aquatic life from water that passes through the gills.
- The Association for the Advancement of Medical Instrumentation sets water purification standards for dialysis; those standards specifically address monochloramine.
- (Insert utility name) will work/has worked with local dialysis providers to ensure they are aware of the change to monochloramine.
- For aquatic life, monochloramine must be removed using a treatment product specifically designed to remove monochloramine.
- (Insert utility name) will work/has worked with pet stores, aquarium stores and others who keep aquatic life to ensure they are aware of the change to monochloramine.

### 4. US Environmental Protection Agency states that research and experience to-date indicates monochloramine is safe and beneficial at levels typically used to treat drinking water. However, in recent years, a small percentage of consumers have expressed concern over health symptoms they believe are connected to monochloramine.
- Among the reported symptoms are respiratory problems, skin irritation and digestive problems.
- The actual cause of those problems is not known, but it is possible that some individuals may be sensitive to monochloramine, just as some individuals are sensitive to chlorine.
- If any of our customers experience symptoms they believe are connected to monochloramine, we asked that they immediately contact their physicians, the (insert public health agency) and (insert utility name).

We join the US EPA, the Centers for Disease Control and Prevention and the American Water Works Association in encouraging continued research on drinking water disinfection, including the safe use of monochloramine as a disinfectant. We will continue to monitor results and adjust operations based on recommendations from the very best scientific and public health experts.

Customers should know that regulatory and health agencies consider monochloramine a best available technology with a track record of success for reducing the levels of harmful disinfection byproducts.
Monochloramine Media Tips

Preparing for and Conducting Media Interviews

Your ability to communicate effectively about monochloramine depends in large part on your ability to convey trustworthiness to your audiences. Proper preparation and effective media relations can go a long way toward ensuring that your key messages or talking points resonate with your customers and other stakeholders.

The following information may assist you in preparing and executing your external communications strategies.

Recommendations from Focus Group Review

The following information was provided during Focus Group research on disinfection byproducts (DBPs). The research, which was conducted by Kerr & Downs, focused on women of childbearing ages in two nationally representative locales in the fall of 2005. The information below is general information that can be utilized in communicating information about monochloramine.

➤ Residents want facts, but they want them in a condensed, easy-to-understand format.
➤ Use direct and positive messages.
➤ Understand that one message will not resonate with all residents. Tailor messages to different audiences.
➤ Prepare two levels of information. The first level should contain basic information that will satisfy most customers. The second (and more thorough) level of information can be made available on web sites, in in-depth interviews, and in newspaper articles.
➤ Make it clear to residents that you [are complying / will be complying] with all federal and state regulations and are working hard to further reduce levels of all contaminants in drinking water.
➤ Use a positive, but informational tone when discussing water regulations and DBPs. Avoid technical jargon, and avoid sounding like an academician who presents all sides of an issue and does not make a strong conclusion.
➤ Do not tell residents that tap water is safe because you and your family drink it.
➤ Do not use words or acronyms that will be hard for the public to understand.
➤ Use words like “treating” water when possible.
➤ Show how your water utility is in compliance with EPA’s regulated levels of contaminants. Use specific and simple numbers.
➤ Emphasize that treating our tap water is the public health achievement of the 20th century—drinking water treatment is responsible for making many once-common diseases a concern of the distant past in North America.
Anticipate, Plan, Prepare

1. Identify a primary and secondary project spokesperson. The spokesperson(s) should:
   - Be trained, experienced and comfortable in dealing with the media, including aggressive reporters
   - Have good communications skills
   - Be knowledgeable about the issue, the utility’s key messages and the utility
   - Able to communicate empathy and caring
   - Project a calm, credible persona

   **Media training is highly recommended** before spokespeople begin talking to the media. A specific training program should be tailored to address a variety of monochloramine-related questions and should simulate a variety of interview situations.

2. Establish—and stick to—a media process/policy. Suggestions include:
   - Funneling all media calls through a central person or office, such as the public information officer, to track and coordinate interview requests
   - Those receiving media requests will coordinate an interview after:
     - Verifying the reporter’s name, affiliation, contact info and deadline
     - Identifying the direction of a story
     - Providing project spokesperson with information specific to this reporter’s needs and helping the spokesperson prepare for the interview.
   - Following up with reporter via e-mail to summarize the project’s key messages and provide additional information (statistics, technical info, etc.)

3. Know the target audience of the media to which you will be talking. Anticipate the information needs of the target audiences. Be prepared with key messages and information that your particular audience may need/want.
   - Know and utilize the key messages included in this package.
   - Develop one or two additional key messages specific to your utility.
   - Key messages should be short, repeatable, memorable and free of technical jargon.
   - Align key messages with the public’s interest.

4. Know your utility’s water quality history, especially as it relates to disinfection and disinfection byproducts.
   - Develop a general visual timeline that demonstrates your utility’s efforts to comply with more stringent federal regulations.
Working with the Media

When you receive a reporter’s call:

1. Verify the reporter’s name, affiliation and phone number
2. Ask the reporter what the story is about
3. Ask the reporter’s deadline
4. Ask who else has the reporter talked to or who does the reporter plan to talk to
5. Offer to provide the reporter with background materials and tell him/her you will return the call shortly
6. Use that time to review key messages and anticipate hard questions
7. Consult with others (health officials, etc.)

Conducting an interview— Some Dos and Don’ts

Do

➤ Repeat your key messages—early and often
➤ Move from answering reporter’s (trap) question to supplying your own key message
➤ Make positive points first
➤ Be empathetic—answer emotional questions in a way that shows you care about people’s feelings/concerns
➤ Keep statements short and concise
➤ Remember that your audience is ultimately the reader/viewer/listener, not the reporter
➤ Speak in calm, conversational tones—remember that you are the expert
➤ Listen to the entire question before you respond; listen for the intent of the question
➤ Decline to answer a question to which you don’t know the answer, and be honest—say I don’t know, but build a bridge to also say what you do know, or make a pledge to get the answer and get back to the reporter prior to his/her deadline
➤ Always get back to reporter if you pledge to follow-up
➤ Where appropriate, refer the reporter to a trusted third-party source for additional information
➤ Assume you are on the record/on tape/on camera throughout the entire conversation with a reporter.
Don’t

➤ Don’t repeat loaded or “hot” words
➤ Don’t say “no comment”
➤ Don’t speculate
➤ Don’t give personal opinions
➤ Don’t “shoot from the hip”
➤ Don’t go “off the record”
➤ Don’t use the reporter’s name in your response; remember, you are talking to the reader/viewer/listener at home
➤ Don’t use technical jargon, acronyms, or industry lingo
➤ Don’t lose your cool

Additional Tips for TV Interviews

➤ Dress professionally to enhance credibility
➤ Talk to and maintain eye contact with the reporter; not the camera
➤ Evenly distribute your weight, hands relaxed at your side
➤ Remember to acknowledge the reporter’s questions but move quickly to your key messages
➤ State your key messages clearly and concisely to increase the chance they will be used
➤ Repeat your key messages – the more you use them, the harder it is to edit them out
➤ If the interview is taped (as most are), it is likely the reporter’s questions are not being recorded. If you stumble on an answer, pause and ask the reporter if you can state your answer again more clearly

For more information, contact AWWA’s Office of Public Affairs at 303.734.-3410.