**IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER**

**[System Name] Is Changing a Water Treatment Chemical**

We are sharing this information with you to keep you informed about our water system. To provide better water quality and reduce disinfection by-product formation, we will be changing our water treatment disinfection process starting on [date].

Specifically, we will be converting our water disinfection process from chlorination to chloramination. Your drinking water will continue to be safe and to meet all drinking water standards. Water containing chloramines is no different from chlorinated water for most normal uses and is perfectly safe to drink. The differences in treatment will not have an effect on your personal use, unless you are a kidney dialysis patient or you are a fish owner.

**What should I do?**

* While the vast majority of consumers will not be affected by this change, if you are a kidney dialysis patient or fish owner you will need to take special care.
* **People on dialysis** will need to remove chloramines from the water before using dialysis machines. Hospitals and clinics have been notified of this change.
* **Aquarium/fish owners** must remove chloramines from the water before use, as fish cannot tolerate chloramines.
* **Owners of certain industrial processes as well as home brewers** will want to check with their equipment manufacturers to find out if chloramines will affect their processes.
* **You should consult with your medical provider if you have any health concerns.**

**What does this mean?**

Chloramine compounds are mild and long-lasting disinfectants used to treat drinking water, which are not much different from chlorine. Chloramines are used to provide ongoing disinfection treatment as water moves through miles of distribution pipes from the treatment plant to consumers’ taps. Chloraminated water meets EPA standards and is safe to use for drinking, cooking, bathing, and other household uses. Disinfection using chloramines has been used by water utilities for almost 100 years.

**More information**

Please read attached sheet of frequently asked questions and answers. You may also contact [name of contact] at [phone number] or [mailing or email address].

*Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.*

This notice is being sent to you by [system]. PWS ID#: \_\_\_\_\_\_\_\_\_ Date distributed: \_\_\_\_\_\_\_\_\_

**[System Name]**

**Frequently Asked Questions and Answers**

**on switching disinfectants from chlorine to chloramines.**

**Why are we switching to chloramine?**

Currently we use chlorine as a means to disinfect the water we supply to our customers. The conversion to chloramines is intended to provide better quality water to reduce the formation of disinfection by-products to comply with increasingly stringent federal regulations. Application of chloramines will also help to maintain a more stable disinfectant residual throughout our distribution system.

**What is the difference between chlorine and chloramines?**

Chlorine is a disinfectant chemical that is added to the drinking water at the treatment plant. The chlorine then stays in the water at a low concentration throughout the distribution system to keep the water safe by protecting against biological growth.

Chloramines are a group of chemical compounds that are created by adding ammonium sulfate to the water after chlorine is added. We are using ammonium sulfate, a food-grade substance that safely transforms chlorine to form chloramines. Like chlorine, chloramines also keep the water safe by protecting against biological growth throughout the distribution system, but they also produce lower level s of disinfection by-products.

**When will the change to chloramination take place?**

The [system] is currently installing new chemical feed equipment that will provide for the use of chloramines. However, the new equipment will not be activated until [date] in order to provide plenty of time for customers to understand and prepare for this change in disinfection method.

**How will the change to disinfection with chloramines affect me?**

Your drinking water will have less disinfection by-products and less of a chlorine taste and odor. Most customers will not observe any difference, other than some reduction in the “swimming pool and bleach” smell they may have experienced when drinking a glass of water.

**A facility or household providing kidney dialysis and individuals or commercial establishments maintaining fish tanks will have to ensure that the pretreatment steps they currently use to remove chlorine are adjusted, if necessary, to also remove chloramines.**  For example, carbon filtration or water treatment products that neutralize chloramines may be used. If you use a carbon filter it must contain high-quality granular activated carbon and you must permit sufficient contact time.

**Is disinfection with chloramines safe? Is it a proven treatment method?**

Yes to both questions. The US Environmental Protection Agency (EPA) accepts chloramines as a disinfectant and recognizes its ability to control the formation of disinfection by-products. There are many cities and towns throughout the country that use chloramines for disinfection. Communities throughout the Metro Boston region are using chloraminated drinking water, as the drinking water provided by the MWRA is currently chloraminated and has been since the 1930’s.

Chloraminated water is safe for bathing, drinking, cooking, and other everyday uses. The vast majority of consumers will not be affected by this change. **However, there are two groups of people who need to take special care with chloraminated water: kidney dialysis patients and fish owners**. (This is discussed further in this brochure.) Home brewers and some commercial industries may want to consult their equipment manufacturers to see if chloramines will affect their processes.

**Is it okay to wash an open wound with chloraminated water?**

Yes. Even large amounts of chloraminated water used in cleaning a cut would have no adverse effect because virtually no water actually enters the bloodstream that way.

**Will chloramines affect the way I treat my swimming pool?**

No. You will still need free chlorine residual to retard the growth of algae and bacteria.

**Can children and pregnant women drink chloraminated water?**

Yes. Everyone can drink water containing chloramines.

**Can I use chloraminated water to prepare baby formula?**

Yes.

**Can people on low-sodium diets or with diabetes use chloraminated water?**

Yes.

**What are the impacts of chloramines on pets?**

Chloraminated water is as safe as chlorinated water for plants and animals that do not live in the water. Chloramines will not cause any health problems for dogs or cats. Chloramines are only dangerous for fish, reptiles, shellfish, and amphibians that take water directly into their bloodstream. (See section below.)

**Will reverse osmosis treatment units or water softeners remove chloramines?**

No. Chloramines may pass through reverse osmosis membranes and most softeners are not designed to remove chloramines.

**How can I remove chloramines from my drinking water?**

According to EPA, water disinfected with chloramines that meets regulatory standards is safe to use and it does not need to be removed. Chloramines can be more difficult to remove from drinking water than chlorine.  Boiling water, adding salt, or allowing water to sit at room temperature does not remove chloramines from drinking water. Reverse osmosis filters also do not remove chloramines from drinking water. Commercial products are available that indicate that they remove mono-chloramines from drinking water, but you should check their certification. The following website is helpful in choosing filters:

<http://www.nsf.org/consumer-resources/what-is-nsf-certification/water-filters-treatment-certification> or the main page at <http://www.nsf.org/> or, you can call the NSF hotline at 1-800-673-6275.

**Information for Kidney Dialysis Patients**

**Why do dialysis patients need to take special precautions?**

Kidney dialysis patients can safely drink, cook, and bathe in chloraminated water. However, just as with chlorine, chloramines can harm kidney dialysis patients during the dialysis if they are not removed before the water mixes with the patient’s bloodstream.

**How can people with home-dialysis machines remove chloramines?**

There are two ways to remove chloramines – either by adding ascorbic acid or using a granular activated carbon filter. You should first check with your physician or dialysis provider, who will probably recommend the appropriate type of water treatment. Often, home dialysis service companies can make the needed modifications. The treated water should be monitored to measure the final concentrations of chloramines.

**How are kidney dialysis patients affected by chloramines?**

Chloramines can diffuse through the reverse osmosis membrane filters used by some hemo-dialysis machines allowing the chloramines directly into the patient’s blood. Chloramines can damage hemoglobin in the blood and cause hemolytic anemia. To prevent this, dialysis equipment must be adjusted or upgraded to also remove chloramines, and the treated water must be monitored to measure the final concentrations of chloramines. Dialysis facilities will need to review their dialysis treatment equipment to determine its continued safe operation.

**What is the water department doing to ensure that kidney dialysis patients and facilities are prepared?**

The [system] will be contacting the National Kidney Foundation, the End Stage Renal Disease Foundation and medical centers throughout the community to notify them about the upcoming change to chloramination. This informational brochure will be placed at town hall and mailed to all [town] customers to help make sure that they are aware of the change.

**Information for Fish/Amphibian Owners**

**What about fish, reptiles, amphibians, and crustaceans?**

Chloramines must be removed from any water to be used for fish tanks or ponds. Like chlorine, chloramines are toxic to saltwater and freshwater fish, reptiles, turtles, and amphibians. These animals take chloramines directly into their bloodstream through their gills or skin and therefore must be protected.

Hobbyists, restaurants, fish markets, etc. that now treat for chlorine in the water should assure that they have appropriate carbon filtration equipment or use dechloramination products that neutralize chloramines (chlorine and ammonia). These products are readily available through pet and aquarium stores, as well as from companies that service commercial fish tanks.

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