



WATER FACTS

Drinking Water Taste & Odour Concerns

Overview

Sault Ste. Marie Public Utilities Commission (PUC) switched from chloramine disinfectant to free chlorine residual disinfectant in the distribution system. This MOE approved method is the most widely used drinking water disinfection process in Ontario, across North America and around the world. The use of free chlorine instead of chloramine provides several advantages, including elimination of aqueous ammonia in the treatment process, minimizing the number of chemicals used, providing safer drinking water, and reducing the costs to customers. Free chlorine reduces the potential for nuisance biological growth in the distribution system and is also less likely to promote corrosion in the lead service lines that serve many older homes or leaching of lead from brass plumbing fixtures and taps.

Since the conversion to free chlorine on October 27, 2011 some customers have expressed concerns related to noticeable taste and/or odour (T&O) related to chlorine in the water.

Some Frequently Asked Questions & Answers include the following:

How long will I notice the chlorine in my tap water?

Ever since the conversion to free chlorine in late 2011, PUC has been working towards reducing the amount of chlorine used to the lowest level possible while still meeting all regulatory requirements. At this time, the dosage of chlorine being used is about 50% lower than it was at the time of the switch. Furthermore, PUC is now injecting about 30% less chlorine into the drinking water than prior to the switch, when chloramine was being used. And what's more, PUC has eliminated the need to inject ammonia into the water. (PUC used to inject about 16 tonnes of ammonia into the drinking water each year when chloramine was used)

PUC will continue to work towards reducing the amount of chlorine in the water to the lowest level possible, but at this point, it is not possible to reduce the levels any further. However, additional activities that will be conducted by PUC over the long term are expected to improve the long term aesthetic qualities of Sault Ste. Marie's drinking water.

I can smell or taste chlorine in my tap water – how will this affect my health, now or in the future?

PUC has been injecting chlorine into the city's drinking water for at least the past 100 years. There has always been chlorine in Sault Ste. Marie's drinking water. However, up until October 27, 2011 there was also ammonia in the water in addition to the chlorine. When PUC converted to free chlorine on October 27th, the only change was that ammonia was no longer added to the disinfection process. As noted above, there is 30% less chlorine in the water now than prior to the switch.

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Chlorine has been used in drinking water all over the world since the late 1800's and its use has saved millions of lives. The use of chlorine to disinfect drinking water is cited by health authorities worldwide as an essential practice for preventing deadly waterborne disease.

The concentrations of chlorine used in Sault Ste. Marie's drinking water are extremely low and well within the health related limits set by the Ontario Ministry of Environment and Ministry of Health.

Is Free Chlorine and Chloraminated water safe?

Yes, both forms of chlorine are effective and safe. Both forms of chlorinated water are safe for people and animals to drink, for cooking and bathing, watering the garden, and for all other common uses. Just as with Chloramine, precautions must be taken to remove or neutralize Free Chlorine in the preparation of water for fish tanks and ponds, and for businesses requiring highly-processed water. A de-chlorination procedure optimized for Chloramine removal will equally remove Free Chlorine.

What should dialysis patients know about Free Chlorine?

Both Free Chlorine and Chloramine need to be removed from water before passing into the bloodstream. Customers with home dialysis equipment should contact their physicians and check with equipment manufacturers for more information. Like everyone else, dialysis patients may drink water treated with either Free Chlorine or Chloramine because the digestive process neutralizes these chemicals before they can enter the bloodstream.

How can I remove chlorine from my water?

The easiest and most effective way is to put a pitcher of water in the refrigerator. Cold water always seems to taste better. Adding a lemon wedge, or filling a container with water and leaving it to vent is also effective. Home water treatment devices (filters) that employ granular activated carbon or reverse osmosis will reduce or remove chlorine.

Where can I get more information?

For more information contact the following:

- For health related questions call Algoma Public Health at 705-942-4646
- For technical or water supply related questions call PUC Services at 705-759-6522