

ADVISORY

CHANGE IN PUBLIC DRINKING WATER SUPPLY TREATMENT August 16, 2013

CONTACT:

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Dear Animal Care Professional:

Beginning in the late fall/early winter of 2013, the City of Peabody water treatment plants will start using chloramines, instead of chlorine, as a secondary disinfectant for our drinking water conveyance system. The change is being made to improve water quality and to meet federal and state drinking water regulations.

For most regular uses of potable water, chloraminated water is the same as chlorinated water. However, mammals on kidney dialysis need to take special care with chloraminated water, and chloramines must be removed from the water used in live fish and crustacean tanks.

What is the difference between chlorine and chloramine?

Currently, Peabody uses chlorine as the primary disinfectant chemical to kill or inactivate bacteria, viruses and other potentially harmful organisms in drinking water. Chlorine also serves as a secondary or residual disinfectant in the water conveyance system. The maintenance of this residual disinfectant is not just good public health practice; it is required by the Environmental Protection Agency and the Massachusetts Department of Environmental Protection.

Chloramines are created by adding ammonia that then combines with the chlorine as the drinking water leaves the treatment plants. Chlorine will still be used as the primary drinking water disinfectant; however, chloramines will now be used as the secondary disinfectant in the water conveyance system. Chloramines produce fewer disinfection byproducts such as Total Trihalomethanes (TTHMs) and maintain a longer lasting residual disinfectant than chlorine alone.



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Is it safe for mammals to drink water containing chloramine?

Yes. Since the digestive process metabolizes chloramines before they reach the bloodstream, mammals can drink chloraminated water. Animals on kidney dialysis can drink, eat food cooked in, and bathe in chloraminated water. It is only when water interacts directly with the bloodstream, as in dialysis, that chloramine must be removed.

What about fish, reptiles, amphibians, crustaceans and other pets?

Owners of fish tanks, reptiles, amphibians and crustaceans, including hobbyists, restaurants, and fish markets which now treat for chlorine in the water, should have appropriate carbon filtration equipment or use water treatment products that neutralize chloramines.

All other pets, including dogs and cats, can safely consume chloraminated water.

Are Koi fish affected by chloramines like other fish?

Yes, Koi are just as susceptible to being harmed by chloramines as other fish.

Are saltwater fish and crustaceans affected by chloramine?

Yes, if the water used in the tank systems is from the City water conveyance system.

How are mammals on kidney dialysis affected by chloramine?

Chloramines can diffuse through the reverse osmosis membrane filters used by some hemo-dialysis machines, and animals undergoing kidney dialysis could be adversely affected. To prevent this, dialysis equipment must be adjusted to remove chloramines, and the treated water must be monitored to measure the final concentration of chloramines. Dialysis facilities will need to review their dialysis treatment equipment to ensure its continued safe operation.

Websites for further information:

City of Peabody
www.peabody-ma.gov

Environmental Protection Agency
<http://water.epa.gov/drink/>

Commonwealth of Massachusetts Department of Environmental Protection
<http://www.mass.gov/eea/agencies/massdep/water/drinking/>