Trihalomethanes in drinking water – the facts

As a result of the publication of a few articles which may have given a misleading impression concerning the quality of drinking water from the Municipality of Pontiac’s water supply system (village of Quyon), the municipality wishes to reassure the public and re-establish certain facts.

Although non-standard levels of trihalomethane were detected in the municipality’s drinking water supply system, it does not however mean that there is necessary cause for concern.

As noted in a recent story from Radio-Canada on the subject (Radio-Canada, November 19, 2013, http://m.radio-canada.ca/regions/estrie/2013/11/19/003-taux-trihalomethanes-eaux-municipalites-estrie.shtml):

“...The standard in Quebec is 80 micrograms of trihalomethane per liter of water. The test results of these cities however do not pose any risk to the health of citizens. The standard that is set by the Quebec government is far from the limit of consumption of water containing chlorine that may pose any health risk.

According to the instructor in environmental chemistry at the University of Sherbrooke, Marc-J. Olivier, the standard set by Quebec is so severe, that a slight excess is not a health risk. “Although your numbers exceed the norm, in a short and long-term situation, you are not in any particular risk. As long as the said numbers are not excessively large, there is no risk”, he states.”

The trihalomethane is a sub-product of the chlorination in drinking water which is mainly formed by the reaction of chlorine with other natural substances that are present in the water. The use of chlorine is essential to clean the water: “Without adequate water disinfection, the risks associated with these microorganisms are much greater than those caused by THMs.” (Trihalomethane chart, Scientific group concerning water – Institut national de santé publique du Québec, December 2002 (Quebec National Institute for public health safety).

The Municipality of Pontiac will see to it that the presence of THMs in drinking water is reduced in order to meet the Quebec standards. Meanwhile, those who may want to take additional precautions may do so by using a pitcher equipped with a charcoal filter (“Brita” type) which would eliminate 98% of the by-products. On the other hand, the THMs dissipate with the cold and in the open air. Therefore, keeping water in the refrigerator in an uncovered pitcher for a period of 24 hours is also an option to consider. Furthermore, even though the exposure to THMs through contact with your
skin is minor, it is reduced when taking a short bath as opposed to taking a shower. In either case, proper ventilation will also eliminate much of the THMs.

It should also be noted that concentrations of THMs tend to be higher during the summer and in early fall because of environmental conditions.

For more information on precautions than can be taken, please consult the flyer titled “Trihalomethanes in drinking water – simple measures to reduce their effects” produced by the Ministry of Health and Social Services:


Dec. 3, 2013