

Lead in UNB Drinking Water

Recently, UNB disclosed that the levels of lead exceeded Health Canada guidelines at 2 of 553 locations in Fredericton and that it was high prior to flushing at about 90 other locations. We have heard from a number of members who were wondering whether the water is safe in Fredericton and Saint John, what the impact of the past use of water fountains might be on their health, whether the testing information was going to be made public, and what AUNBT was doing to address the issue.

We have been in contact with Facilities Management both directly and at the open house on the Fredericton campus. We want to acknowledge the efforts of Facilities Management in being proactive in their disclosure of issues and their results as they became available. Testing information has been made available to the UNB community by Facilities Management through their website at:

<http://www.unb.ca/initiatives/waterquality/>

Executive Member Juan Carretero from Mechanical Engineering was able to attend the Open House and he raised some questions to enable us to provide information to the membership. These are summarized below.

Executive Member Brian Lowry from Chemical Engineering has further provided us with some information about lead in the water and possible health effects. This information is included below following the questions and answers.

1) Was testing done in the past?

No, because there are no guidelines or regulations about water testing in public places.

2) Is testing mandatory?

No, the only place in Canada where testing is mandatory is in schools for young children in Ontario. The regulations there call for testing every year of all water fountains. If a specific source tests negative (i.e., low lead concentration) for two consecutive years then the next test is scheduled for three years after the second testing. Note that the testing in this test, however, is based on Canadian water testing guidelines which call for a 5 minute flush (running the tap for 5 minutes before taking a sample) as opposed to first grab (taking a sample immediately on turning on the tap).

3) What will happen now?

In addition to taking any corrective measures (which are taking place right now), Stantec (the external consultant) and Facilities Management will develop a testing protocol. The intention is to continue to use the same first grab method for testing as this more accurately represents how faucets/fountains are used.

Health Impacts of Lead in the Water

The current North American consensus is that while there is no perfectly safe level for lead in drinking water, a cap of 10-15 parts per billion (micrograms per litre) is sufficient for most groups. There are two primary impacts of lead in drinking water: developmental issues in

children (especially up to six years of age), and lifetime accumulation of lead in the body. The latter is a concern for everyone, especially those who have worked at UNB over extended periods: lead does not flush at any appreciable rate from the body, so it tends to accumulate over decades. The levels disclosed are unlikely to cause medical problems, but blood tests for lead are available and may be a good choice for those who feel they have suffered decades of exposure -- consult your doctor as appropriate. Those with children may want to consider overall exposure (not just UNB), in which case there is a link below to a surprisingly inexpensive on-site water testing kit that seems to have broad acceptance by reputable distributors of testing kits. Please keep in mind that do-it-yourself testing is only useful as a rough indicator of problems; the testing performed by UNB was considerably more exacting than a simple test kit.

The following links are to helpful information on lead toxicity in drinking water:

Health Canada: <http://www.hc-sc.gc.ca/hl-vs/alt_formats/pdf/iyh-vsv/environ/lead-plomb-eng.pdf>

Canadian study on lead exposure:

<<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC111081/pdf/20020514s00020p1287.pdf>>

Ontario: <<http://www.portal.gov.on.ca/drinkingwater/272698.pdf>>

testing kit: <<http://www.coleparmer.ca/1/1/15914-watersafe-drinking-water-test-kit.html>>

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Please let us know if you have further questions on this issue.

In solidarity,

Jula Hughes
President, AUNBT