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March 19, 2019

Representative Kathryn Webb, Chair
House Committee on Education
Vermont State Legislature
115 State Street
Montpelier, VT 05633

Dear Representative Webb and members of the Committee,

Thank you for allowing me to testify on Bill S.40 at your meeting last Friday. This is to provide some clarification to my testimony and some additional points for your consideration.

I recommend three Action Levels be set:

- **Action Level for Lead / Copper First Draw - after at least six hours with no use**
  Lead: 15 parts per billion (ppb) **Copper:** 1.3 parts per million (ppm)
  Justification: These are the EPA lead/copper action levels for public water systems. Having the same standard for both residences and schools avoids causing confusion with the general public (i.e. parents). Testing for both lead and copper is consistent with the requirements for public water systems and will show how corrosive the water is. Sample results usually indicate worst case.
- **Action Level for Lead First Draw - after one hour with no use**
  Lead: 5 parts per billion (ppb) **Copper:** not tested
  Justification: These samples would be more in line with unsupervised water use, such as a water fountain or water bottle filling station, that would be dormant while students are in class. *(This addresses a question regarding a similar situation that was asked by a committee member during my testimony.)*
- **Action Level for Flushed sample - normal use**
  Lead: 2 parts per billion (ppb) **Copper:** not tested
  Justification: These samples would be more in line with supervised water use such as a classroom or kitchen where school personnel would be assuring that the water is run before it is consumed.

Sampling Plan

A sample plan must be implemented before "first round" samples can to be taken. The plan must identify all drinking water fixtures. The number of samples should be based on the size of the school. Consolidation of drinking water fixtures should be researched and encouraged. The number and frequency of the routine samples required should be reduced after two consecutive rounds of sampling results show lead levels less than the designated action level.

- **Lead / Copper First Draw - after at least six hours with no use**
  Up to five sites. Choose sites that are used frequently and/or used by younger children.
- **First Draw - after one hour with no use**
  Choose sites that may go unused for a brief time during a school day and are not supervised by school personnel (i.e. water fountains)
- **Flushed Sample - normal use**
  Choose sites that are supervised by school personnel (i.e. classrooms, kitchens) and have tested over 2 ppb on a First Draw – one hour sample.

Flushing Plan

Lead is one of the few contaminants where it needs contact time for it to become an issue. EPA, VT DEC and public water purveyors advocate flushing the cold water before using and never use hot water from a faucet for consumption. Flushing is one of the best and most cost effective ways to remove lead from drinking water. A flushing plan consists of a list of fixtures used for water consumption. The list should state the flushing order and minimum length of time each should be run. A flushing plan that is performed daily and documented will achieve desired results in most cases. While it will take same practice for school personnel to develop the habit, it will become routine with time.

Flushing Procedure (when building is occupied)

- **Daily (before school session)**
  Follow flushing plan. Record date, time and person performing the flushing. This document is to be maintained.
- **Throughout school day**
  School personnel should be advised to run the cold water for a brief period of time prior to use for consumption and to encourage students to do the same.

Lead in Drinking water impact on students at school

World Health Organization's "Lead in Drinking-water" (submitted earlier by another witness) estimates at 5 ug/l (ppb) the daily intake of lead is less than 20%. Assuming an average day consisting of eight hours attending school, eight hours home or elsewhere, and eight hours sleeping, drops the estimated daily lead intake in a school day to less than 10% @ 5 ug/l (ppb) in the water. The impact of the water in schools is even less when you factor in that students attend five days a week for approximately forty weeks in a given year. Pilot sample results from flushed samples have shown to be considerably less than 5 ug/l (ppb), which would drop the percentage even lower.

Cost

The cost of the program needs to be major component of how to proceed. Someone, whether it is tax payers, daycare owners or daycare users, will have to pay for its implementation.

There are additional factors that should to be considered in order for this regulation to be successful.

In closing, I am in favor of the concept of this bill. My main duty as a professional water system operator is to provide safe quality drinking water at an affordable cost. I believe we can achieve this if we keep our goal realistic.

Thank you once again for your time.

I am available to discuss this further. Please contact me if you have questions.

Sincerely,

Richard Kenney
Chief Water System Operator, Town of Hartford
Contract Water Operator, Child Care Center in Norwich

Cc: Rep. Lawrence Cupoli, Vice Chair
Rep. Peter Conlon, Ranking Member
Rep. Sarah "Sarita" Austin
Rep. Lynn Batchelor
Rep. Caleb Elder
Rep. Dylan Giambatista
Rep. Kathleen James, Clerk
Rep. Philip Jay Hooper
Rep. Christopher Mattos
Rep. Casey Toof