

Brantford May 25, 2010, agenda item # 4.2.2 EN2010-076: Fluoridation of Brantford's Drinking Water Supply

by
Carole Clinch BA, BPHE

Executive Summary: The Elephant in the room

This report fails to inform council that Brantford is in violation of federal law.
This report includes many gross errors of fact and errors of omission.
The conclusions presented regarding the Brantford trial are scientifically invalid (not supported by the actual research evidence).

“Nothing makes a report more suspect than when no verifiable references are included and the reader is tacitly expected to accept the discussion and conclusions on faith alone.” *Source: Bette Hileman (Editor), Fluoridation of Water, Chem. & Eng. News, 66, 26 (1988).*

This reports states that the “city of Brantford plans to continue fluoridation”.
The decision to fluoridate can ONLY be made by elected city council or by Brantford citizens in a referendum.

Was the decision to fluoridate made by council before this report was submitted to council and before any public input was permitted? If so, is this democratic? If not, was staff being presumptive?

As stewards of this city, this Council cannot responsibly accept this report because it is full of SIGNIFICANT errors of fact and astonishing errors of omission.

An acceptance of this report puts the city of Brantford at risk of consequences for violating federal law.

Fluoride

Staff knew or should have known that MAC = Maximum Acceptable **Contaminant** level.
Fluoride is defined as a **Contaminant** when found in drinking water or air.

Fluoride is defined as a **Health Product** when ADDED to drinking water for claimed **therapeutic purposes**.

Unregulated, Unapproved, Uncontrolled, Illegal

You cannot “cherry-pick” which laws you are going to follow. You must comply with all laws – federal and provincial. This report fails to mention that the fluoride products bought, sold and manufactured by Brantford are unregulated, unapproved therefore ILLEGAL.

The only government agency who can determine safety and efficacy of these fluoride products is Health Canada. Health Canada has stated clearly that fluoride products used for therapeutic purposes are health products which require their regulatory approval. Without their regulatory approvals, these products cannot legally be called SAFE OR EFFECTIVE and these products are not LEGAL. Without regulatory approvals, the manufacturers of the silicofluoride product used and the final manufacturer of fluoride water – the corporation of Brantford – is not in compliance with the law. (Natural Health Product Regulations 2004, under the Food and Drugs Act, 1985).

This report fails to mention the growing body of evidence showing that fluorides added to drinking water increase lead leaching. Brantford has a problem with lead in drinking water.

[Map of Lead Water Service Locations in Brantford, Ontario](#)

http://www.brantford.ca/residents/health/water_quality/PrivateLeadWater/Pages/FAQs.aspx

This report fails to mention the source water concerns from adding tons of these toxic substances into source water every year.

EN2010-076: Background: Fluoride naturally present in the water supply at the optimal concentration range (Stratford)

FALSE & MISLEADING #1: “Optimal Concentration”

- Brantford staff knew or should have known that fluoride levels in Stratford drinking water exceed the Maximum Acceptable Contaminant level (MAC) for F. Suggesting that these levels are “optimal” is a gross error of fact.
- Prestigious Iowa Fluoride Group
 - recommends that the word “optimum” no longer be used because there is no “optimum” for an entire population.
 - “Fluoridation is an obsolete practice. It goes against all principles of modern pharmacology. The use of the public drinking water supply to administer the same dose of fluoride to everyone, from the infant to those who consume copious amounts of water (such as diabetics), goes against all principles of science because individuals respond very differently to one and the same dose and there are huge variations in the consumption of this drug...” Carlsson A, MD, PhD Nobel Laureate in Medicine, 2000, Sweden Letter to the South Central Strategic Health Authority, UK. February 2009. Available online at: <http://www.fluoridealert.org/southhampton.html>

EN2010-076: Brantford fluoridation trial: Sarnia and Stratford “controls”

- “water artificially fluoridated has the same **beneficial effect** as fluoride originating from a natural source”
- **“tooth decay can be prevented by 60%”**

FALSE & MISLEADING #2: Fluoridation trials

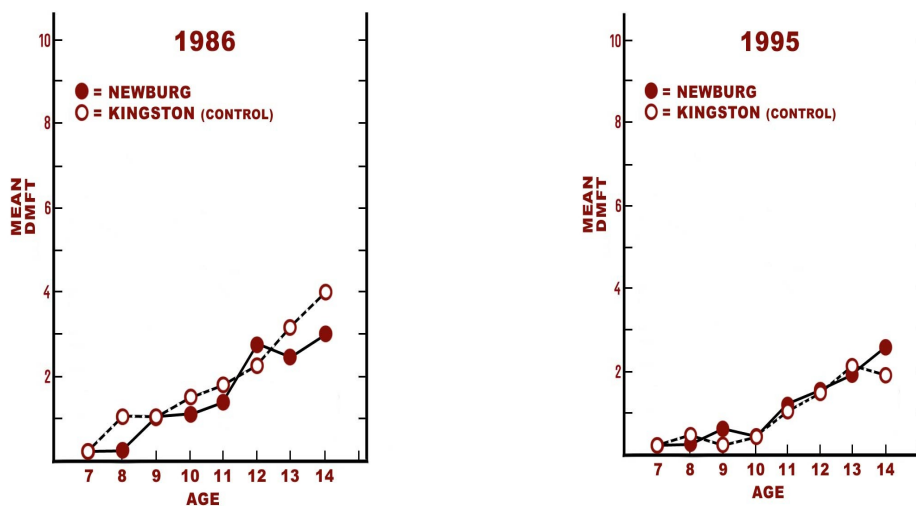
Professor Hubert Arnold, statistician from the University of California at Davis, who provides a course on statistical frauds stated:

Early fluoridation trials "are especially rich in fallacies, improper design, invalid use of statistical methods, omissions of contrary data, and just plain muddleheadedness and hebetude". Source: Letter from Hubert A. Arnold, Ph.D, University of California (Davis), to Dr. Ernest Newbrun, Medical Sciences Bldg. 653, San Francisco, California. May 28, 1980. Online at <http://www.fluoridealert.org/uc-davis.htm>

Kingston-Newburgh Trial: 40 & 50 years later

NO BENEFIT

Same Cavity Rates in unfluoridated community compared to fluoridated community (Kumar & Green 1998)



More dental fluorosis in fluoridated community compared to non-fluoridated community (Kumar et al. 1998)

Increased cortical bone defects in fluoridated community cf. non-fluoridated community (Schlesinger et al. 1956) - fluoridated Newburgh (13.5%) & non-fluoridated Kingston (6.5%)

Early onset puberty for young women in fluoridated community suggesting adverse health affects on Pineal Gland (NAS 1977, Luke 1997, 2001)

Fluoridation: Errors & Omissions in Experimental Trials. Discusses 4 North American trials at Grand Rapids, Evanston, Brantford, Newburgh.

- Inappropriate experimental and statistical methods
- Failure to consider random variation, examiner variability and bias
- Omission of relevant data
- Arithmetical errors
- Misleading comments
- Controls were either doubtful or nonexistent

Written by:

- Philip R N Sutton DDSc, FRACDS, Doctor of Dental Science,

Peer-Reviewed by:

- Professor Maurice Betz, Dept Head - Mathematical Statistics in the University of Melbourne
- Sir Arthur Amies, Dean of the Faculty of Dental Science, University of Melbourne

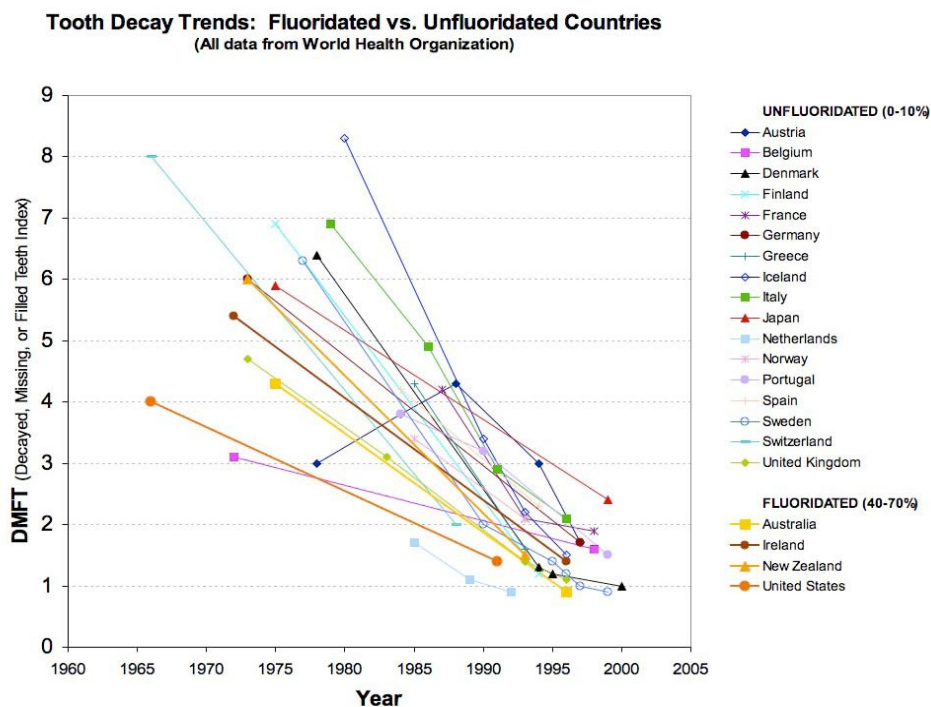
National Health and Medical Research Council of Australia 1991:

“-the quality of the early intervention trials was generally poor.”

Brantford Fluoridation Trial

The Brantford trial used sodium fluoride – not sodium silicofluoride. They are chemically different.

This Brantford report implies that significant declines in cavities only occurred in Stratford and Brantford which is false. Authors of the actual study (Brown et al., 1954b) showed that statistically significant declines in cavity rates occurred in both control cities. This reflects similar declines in both fluoridated and unfluoridated countries according to WHO data. (graph by Chris Neurath)



According to quotes by the actual researchers, differences in cavities were due to differences in the quality and quantity of dental services – not the F in drinking water.

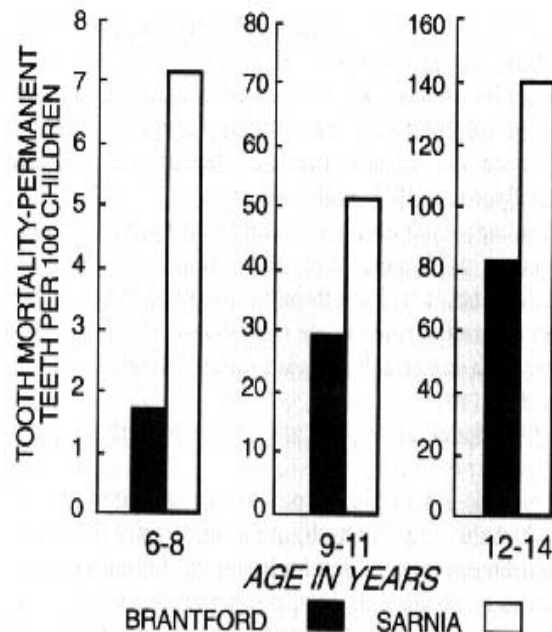
United Kingdom Mission (1953) noted that Brantford was unusually well provided with free dental services “and this has resulted in the ratio of corrected to total defects being

higher than in either Sarnia or Stratford.”

“other factors such as differences in preventive or treatment measures are probably affecting the Brantford position.” (Brown 1953)

“the recordings so far obtained indicate both a higher treatment and an apparently better oral hygiene status of the Brantford children when compared with the controls, and it is therefore suggested that caution should be exercised in the interpretation of the rates shown.” (Brown 1952)

It is known that Brantford and Sarnia were not well-matched. Brantford had superior dental services, more free dental services than virtually any other community in Canada which would be expected to have a significant impact on the rate of cavities. To state that these differences in cavity rates were due to artificial fluoridation is scientifically incorrect and grossly misleading.



There was no agreement on the number of cavities for the same age groups of children, in the same city, in the same year!

National Health and Welfare results in 1948:

- 1.41 (ages 6-8), 4.07(ages 9-11), 7.68 (ages 12-14)

City Health Department results in 1948:

- 0.84 (ages 6-8), 3.37 (ages 9-11), 6.11 (ages 12-14)

60% better cavity rates was “cherry-picked” from data which fluctuated dramatically from year to year.

Only one age group (6-8 year olds) from only one year (1955) was used to produce this

high number (60%). BECAUSE it showed the greatest difference of all the available data. In other words...The authors of this report “Cherry picked” and use the data which made artificial fluoridation look like it was preventing cavities.

EN2010-076: “sodium silicofluoride... meets NSF 60 standards, which means it is **certified** for use for drinking water treatment purposes.”

FALSE & MISLEADING #3: NSF certification does not ensure safety, as implied.

I sent the following information to staff, so it is curious that they did not inform you of these salient facts.

“The NSF International does not evaluate safety of the chemicals added to water for the purpose of the treatment of mitigation of disease in humans, and does not evaluate the product added to water but only the impurities within the product.”

“NSF failed to follow its own Standard 60 procedures.” 2004 deposition by NSF manager, Stan Hazan

Mayor Robinson (Tennessee) letter March 26, 2010 asked 34 NSF “certified” suppliers of fluorosilicates from NSF website if they complied with NSF regulations. None were in compliance with NSF Standard 60.

Boston News: NY co that supplies fluorosilicates said that it was certified by NSF, but NSF stated that this company had never been certified.

EN2010-076: Input from other sources

Section 19 of SDWA , which was proclaimed in May 2007 and will come into force on January 1, 2013, requires that those are in a position of oversight of municipal drinking water systems must apply a statutory standard of care to their oversight activities. This includes reliance on experts whose professional qualifications lend credibility to their report.

FALSE & MISLEADING #4:

Staff knows or should have known, that the Petition 221E submitted to the Auditor General of Canada, Sheila Frasier, outlined widespread and repeated use of False & Misleading statements by: (a) Chief Dental Officer for Health Canada; (b) regulatory body for dentists in Ontario (RCDSO); (c) Chief Medical Officer of Health for Ontario;(d) Medical Officer of Health for Waterloo; others.

On March 27, 2009, Simcoe Reformer, “Public Health Service accused of plagiarism”:
<http://simcoereformer.ca/ArticleDisplay.aspx?e=1498332>

“Lock admitted he “cut and pasted” from the Toronto document for the report that appeared under his name this week at Norfolk council. Lock did so without footnotes or attribution, even though the sections in question are cited and referenced in a bibliography in the Toronto report.”

It was notable that the plagiarized sections from the Toronto report, written by Dr. Hazel Stewart, included false and misleading information regarding the Harvard bone cancer study.

Staff knew or should have known, that the WHO does not officially endorse AWF.

Health Canada “does not participate in the decision to fluoridate a water supply.” and yet the Chief Dental Officer for Health Canada has actively participated in many municipal discussions and received significant money from both federal taxpayers and municipal taxpayers for his services, according to staff in Thunder Bay.

Health Canada's statement that this product is “safe” was written before NHP regulations came into effect.

Health Canada Review – misrepresented the WHO and NRC 2006 Review on this subject. (see below) 3 of the 6 members authored papers demonstrating that these products are not “safe and effective” and yet these papers were never mentioned in the review.

Thiessen K. 2009 <http://fluoridealert.org/re/thiessen.canada>.

Clinch CA. 2009 (a) <http://fluoridealert.org/re/canada.report.letter.clinch.pdf>

(b) <http://fluoridealert.org/re/canada.report.response.clinch.pdf>

(c) <http://fluoridealert.org/re/canada.report.omissions.clinch.pdf>

Connett P. 2009 <http://fluoridealert.org/re/connett.canada.11-11.09.pdf>

Municipalities are legally responsible for buying & selling fluoride products and manufacturing the final fluoride product - “fluoride water”. Dentists and PHS have publicly stated that although they promote artificial water fluoridation, they accept no responsibility for the irrefutable health harm caused by artificial water fluoridation.

Dental Trade Organizations

“Dissemination of information relating to the practice of dentistry does not create a duty of care to protect the public from potential injury.” ADA court testimony: Superior Court of the State of California Case No. 718228, Demurrer (October 22, 1992)

“... We deny that we have any liability (in relation to water fluoridation) as alleged and note that the fluoridation of public water drinking supplies is a matter for the local council.” Australian Dental Association's CEO, Robert Boyd-Boland

Public Health Service

Guzman vs. Monterey County

<http://www.courtinfo.ca.gov/opinions/documents/S157793.PDF>

EN2010-076: The U.S. EPA has set the MCL for F at 4 mg/L. Below the MCL **no adverse health effects** are expected to occur with a **margin of safety considered “adequate”**. Furthermore, the **MOE has set an equivalent parameter** (to the MCL) called maximum acceptable **concentration** (MAC) to a value of 1.5 mg/L in accordance with Health Canada guidelines.

FALSE & MISLEADING #5:

The MOE has no legislative authority to determine the Maximum Contaminant Level, as stated in this report.

The NRC 2006 Review commissioned by the US EPA disagrees with the above claim of “no adverse health effects”. The NRC Review also states clearly that an “adequate” margin of safety has not been applied. (10x to 100x MAC)

MAC = Maximum Acceptable **Contaminant** level. Staff knows, or should have known, what the MAC acronym means.

The US EPA unions, representing over 7,000 professionals, including researchers, lawyers, engineers, are opposed to AWF.

“Recent, peer-reviewed toxicity data, when applied to EPA's standard method for controlling risk from toxic chemicals, require an immediate halt to the use of the nation's drinking water reservoirs as disposal sites for the toxic waste of the phosphate fertilizer industry.”

National Association of Environmental Professionals

“The PHS had the most to lose from revelation of any information that might show that the practice they had been promoting for decades was actually harmful.” p 55

The Carcinogen Identification Committee of the California Environmental Protection Agency's Office of Environmental Health Hazard Assessment (OEHHA) considered a priority ranking of 38 chemicals and has now selected fluoride as one of the five of these chemicals for the possible listing for cancer hazard identification.

http://www.oehha.ca.gov/prop65/CRNR_notices/state_listing/data_callin/sqe101509.html

Chemical	CAS No.
3-Monochloropropane-1,2-diol	96-24-2
1,3-Dichloro-2-propanol	96-23-1
Fluoride and its salts	---
Diisononyl phthalate (DINP)	---
Perfluorooctanoic acid (PFOA) and its salts and transformation and degradation precursors	---

EN2010-076: Most municipalities in Ontario, including Brantford, maintain **consistent F levels** in this conservative range.

NOTE: Overfeed accidents of fluoride in drinking water occur regularly, resulting in deaths and health injuries. These “accidents” are due to mechanical failure and/or human error.

EN2010-076: the addition of fluoride to water supplied in Ontario is reviewed by the MOE

MISLEADING #6:

Brantford staff knew, or should have known, that the Ontario MOE is conducting a review regarding artificial water fluoridation because new research evidence was submitted to them in an EBR “Application for Review”.

Brantford staff knew, or should have known, that the Ontario MOH is also considering a review of their policies because of evidence of False & Misleading statements by some government agencies and because of the poor evidence demonstrating any benefit, but the growing evidence demonstrating irrefutable harm.

Health Canada draft review 2009 had errors of fact, errors of omission and errors of translation. According to the MOE:

“I have been informed that Health Canada is now compiling and reviewing the many comments received. Moreover, they are also responding to a fluoride petition which may delay the review of the rationale document. As a result, the ministry anticipates that a finalized rational document from Health Canada will not be available for at least one year and will therefore delay our review of fluoride. Please be assured that the ministry is still committed to review any new information cited in the final version of the rationale document that may impact current provincial policies regarding the fluoridation of drinking water in Ontario. As stated in my last letter, if this review results in any changes to policies related to inorganic fluorides in drinking water, stakeholder consultation on the Environmental Bill of Rights Environmental registry will be conducted. I will continue to update you of our progress.” *letter to Carole Clinch from Carl Griffith, Assistant Deputy Minister, Environmental Sciences and Standards Division, dated Jan 12, 2010.*

Ont Min Health 1999 Review:

Dr. David Locker 1999 Benefits and Risks of Water Fluoridation: An Update of the 1996 Federal-Provincial Sub-committee Report Prepared under contract for: Public Health Branch, Ontario Ministry of Health First Nations and Inuit Health Branch, Health Canada.

http://www.health.gov.on.ca/english/public/pub/ministry_reports/fluoridation/fluoridation.html

- "In Canada, actual intakes are larger than recommended intakes for formula-fed infants and those living in fluoridated communities."
- "The magnitude of [fluoridation's] effect is not large in absolute terms, is often not statistically significant, and may not be of clinical significance."

2 years later...Cohen H, Locker D. 2001 The Science and Ethics of Water Fluoridation Journal of the Canadian Dental Association. 67(10): 578-80.
<http://www.cda-adc.ca/jcda/vol-67/issue-10/578.html>

- "In the absence of comprehensive, high-quality evidence with respect to the benefits and risks of water fluoridation, the moral status of advocacy for this practice is, at best, indeterminate, and could perhaps be considered immoral."

York Review 2000

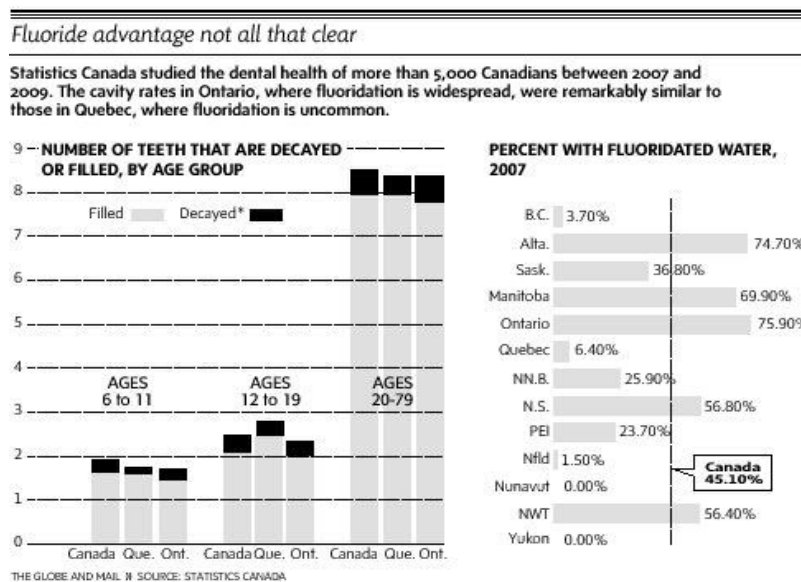
- "The review did not show water fluoridation to be safe." 1.
- "Water fluoridation has not been proved to reduce tooth decay" 2.
- "We are concerned about the continuing misinterpretations of the evidence and think it is important that decision makers are aware of what the review really found." 2.
- "Department of Health's objectivity is questionable...Department of Health...used the York Review's findings selectively to give an over-optimistic assessment of the evidence in favour of fluoridation." 1.
- "There are no randomised trials of water fluoridation" - required for "evidence-based" medicine. 2

1. 'York Review' letter 2006 from Chair Dr. Trevor Sheldon

www.yorkshiredaily.co.uk/ViewArticle2.aspx?SectionID=101&ArticleID=1651774

2. British Medical Journal Oct 6, 2007 Cheng, Sir Ian Chalmers, Trevor Sheldon

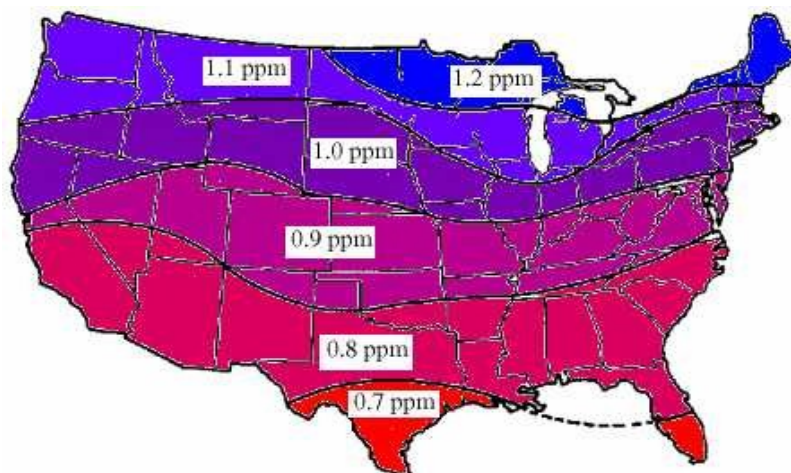
<http://www.yorkshirepost.co.uk/letters-to-the-editor/Chewing-over-the-facts-about-1651774.jp>



EN2010-076: Brantford's raw water supply has a naturally occurring F content that averaged 0.13 mg/L in 2009. Brantford fluorides at the lowest end of the guideline, between 0.5 and 0.6 mg/L. The annual average F concentration in 2009 was 0.5 mg/L. The latest quarterly report shows an average concentration of F at 0.53 mg/L.

FALSE & MISLEADING #7:

The following map is by US Centers for Disease Control illustrating recommended F concentrations of 1.2 mg/L or ppm for Brantford, Ontario, Canada. Brantford is using 0.5 mg/L.



“Studies have shown that even a drop of 0.2 mg/L below the optimum (fluoride) level can reduce dental benefits significantly.” CDC Fluoridation Course 3017-G, pg. 8, para. 3 According to the estimates by CDC (see map above from CDC), fluoride level for Ontario should be 1.2mg/L.

“Since a 20 percent drop in fluoride levels can produce a 50 % drop in benefits ...”South Africa Department of Health. 2003. Water Fluoridation - A Manual for Water Plant Operators. "5.4.2 Optimal Fluoride Level <http://www.doh.gov.za/docs/misc/fluoridation/index.html>

1. US CDC MAP demonstrates that 1.2 mg/L is required to be effective in Southern Ontario.
2. Dental Officer of Health for Halton Region (Dr. Robert Hawkins) stated on Rogers TV that below 0.5 mg /L is not effective.
3. Where is the research evidence indicating that swallowing .2 mg/L F prevents cavities? (see claim below)

EN2010-076: Conclusion: The city of Brantford **plans to continue fluoridation** of the city's drinking water within the **therapeutic range of 0.2 – 0.8 mg/L** as recommended by the Medical Officer of Health and the MOE.

Concluding Remarks:

As a manufacturer of the final fluoride product, Brantford is not in compliance with the new Natural Health Product Regulation.

This fluoridation report is unacceptable because it is riddled with errors of fact and errors of omission.

The fluoridation trial is a failure. Do the right thing and turn it off. Too many people and

animals are being harmed.

Appendix

Professional Engineers Act R.R.O. 1990, Reg. 941 (sections 72, 77) amended to O. Reg. 13/03.

A professional engineer is uniquely and personally responsible for the “**safety or the welfare of the public**” (Prof Eng Act R.R.O., 1990 , Reg 941, Professional Misconduct defined: Section 72(2c)). A doctor or dentist is only legally responsible for their own patients, but for an engineer there is recognition of the “**duty to public welfare as paramount**” (Prof Eng Act R.R.O., 1990 , Reg 941, Section 77(2)).

Section 72d also states that an engineer is responsible for “complying with applicable statutes, regulations, standards, codes, by-laws and rules”. This includes federal regulations.

This report was written by:

Terry Spiers, P Eng.

Sandara Lawson, P Eng.

Environmental Services, Engineering & Operational Services

copied to Chuck Boyd, Holmedale Water Treatment Plant Superintendent

In Canada, misrepresentations of the NRC 2006 Review findings have been made repeatedly and are widespread. For example, in the CDW Secretariat 2009 draft report, “Fluoride in Drinking Water” they state:

“The [NRC] Committee restricted its attention to studies that examined long-term exposure to fluoride in the range of 2–4 mg/L or above in drinking water.”

I include commentary from 2 of the NRC 2006 committee members:

“Dear Carole; Our charge was to evaluate the EPA permissible levels for fluoride in drinking water which are 2 ppm and 4 ppm and we focused on those levels but our report contains considerable information on lower levels of fluoride.” Cordially John Doull (Chair of the NAS committee).” Email letter to Carole Clinch on Mar 20, 2010.

“Health Canada gives an inaccurate characterization of the National Research Council's work.”

“The NRC (2006a) did not restrict its attention to studies of fluoride in the range of 2-4 mg/L or above in drinking water. Many of the cancer studies and Down syndrome studies involved "fluoridated" water (0.7-1.2 mg/L). Many of the endocrine studies involved exposure ranges comparable to those expected for populations on fluoridated water. The discussions of exposure and of pharmacokinetics involved the whole exposure range, including fluoridated water.”

http://www.newmediaexplorer.org/chris/Dr_Thiessen_2009_Health_Canada_Misrepresents_NRC_Review.pdf

http://www.newmediaexplorer.org/chris/Clinch_2009_No_Benefit_Definite_Harm2.pdf