

November 28th, 2010

Att: Arbutus Global Middle School, Greater Victoria School District & Other School Districts Without Exception

Re: Critical Error or Omission in Health Canada's Safety Code 6 on Wi Fi or RF Dangers

To Whom it May Concern;

Prior to schools or school boards accepting Wi Fi installations in their schools, there is critical information they need clarified by Health Canada on an oversight reported to them as the national authority.

The oversight is an unintentional error or omission in Safety Code 6 where limits of human exposure to radio frequency electromagnetic energy are determined. The oversight was not considering human biology as intricate electrical systems with their own frequencies, voltages and electrical requirements. Another error was not considering humans as an uninsulated, unprotected bare conductor in an electrical equation. If you want to solve a frequency conflict in an electrical equation, you need to include all the frequencies or the results will be flawed.

Safety Code 6 treats human biology as objects or furniture, not unprotected electrical systems that can be severely impacted by electromagnetic frequency interaction. One result is electromagnetic induction would occur and that is to be avoided according to Safety Code 6 because in experimental studies it has caused **nerve and muscle depolarization**. Nerve and muscle depolarization could affect every function in the body producing a wide variety of symptoms.

Safety Code 6 on Page 9 under Maximum Exposure Limits says at lower frequencies that the **predominant effect to be avoided** is the unintentional stimulation of tissue because of the experimental studies showing nerve and muscle depolarization. The **predominant effect to be avoided at the higher frequencies** is the heating of tissue.

Health Canada's Safety Code 6 admits there is a heat effect but due to the omission in Safety Code 6, causality of tissue heating was unknown. As a result they determined an acceptable heat load on tissue when it should have set off alarm bells. There should be no acceptable heat load because the tissue is being heated inside the body and there is no mysterious heat load in electrical systems.

When we discovered the oversight in Safety Code 6, our job as government trained professionals with national credentials that consult at operations levels was to report this to the authority having jurisdiction. On September 14, 2010 the omission or error caused by the oversight was reported to Health Canada and the fact the peer reviewed science was taught as electrical standards that could be verified in a day. Health Canada response on October 16th, 2010 was dismissive of the oversight and credentials of their own professionals without qualifying or disqualifying the science taught in every province.

On October 28th, 2010 I was a witness for Canadian Parliament's Standing Committee on Health related to electromagnetic frequency interaction with humans and reported the oversight to the committee. My recommendations to the committee were for Health Canada to contact provincial electrical professionals as the omission in Safety Code 6 could be qualified by the end of the day. I also reported to the committee that Health Canada dismissed existing lectured science that could qualify the dangers of radio frequency interaction with humans as defined in Safety Code 6 as causing nerve and muscle depolarization or a heat effect.

On November 9th, 2010 the Health Minister, MP Ron Cannan, Environment Commissioner and Parliament's Standing Committee received a letter qualifying the oversight. Health Canada was informed they could no longer use the language there wasn't peer reviewed science supporting the danger of RF interaction with humans or ecosystems. Electricity is an absolute science taught as standards or you wouldn't have electricity in your home, school or industry and we wouldn't be having this discussion.

On November 17th, 2010 Alberta PrimeTime had a debate on Wi Fi concerns in Alberta schools and Health Canada once again responded that there wasn't any peer reviewed science supporting the dangers of Wi Fi. Their quote was "Health Canada would take immediate action to revise guidelines should new convincing scientific evidence arise". I have seen no action on this very important issue affecting the whole world.

Health Canada can qualify why they haven't considered the new science called electricity but their negligence puts provinces, school boards, teachers, students, administration, ecosystems, etc at risk when you are expecting leadership from the authority. Health Canada left out of their discussion with you that the dangers of electromagnetic frequencies including Wi Fi will be lectured in medical academia for CE credits doctors need for licensing in January, 2011. That makes it medical education, not opinion.

Your IT professionals are not getting the required information to determine safety of wireless interaction. If they are electrical professionals and were asked what 2.4 or 5 GHz frequency could do to a bare conductor running at 7.8 Hz, their response would be different. Electromagnetic induction, frequency changes and polarization of tissue at twice the frequency are the reality. If atoms and molecules change direction 4.8 or 10 billion times per second, there will be a heat effect.

As per your objectives, technological advances are important in education but it has to be done sustainably to stay within existing law. Wi Fi is convenience to avoid construction costs without the understanding that electrical appliances are hard wired for public safety and integrity of data transfer. Wired computer stations are faster and don't compromise future generations with what we do today.

Here is the contact information for the business representative for the International Brotherhood of Electrical Workers. They look forward to substantiating and assisting you with the required construction to keep our children safe as it has always been done.

William Maarsman IBEW Local 213 Ph: 604-571-6511 Cell: 604-219-1151

It is important to further clarify that our professional opinion would be the same if we were consulting for the wireless industry. Coaxial, insulated or installation of cables are to avoid electromagnetic interference from external sources.

The parents and teachers concerned about electromagnetic interaction with their bodies have very valid concerns because these frequencies are going through bodies as they go through walls, floors and roofs. The frequencies are going through the belly of pregnant moms. The idea they cause a heat effect or nerve and muscle depolarization in a developing fetus should be of great concern.

I look forward to further discussion, answering any questions related to this discussion or expanding on the information in supporting your objectives of technology advancements while keeping everyone safe in our schools. If you require copies of letters referred to in this correspondence, please contact the writer.

Sincerely,

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