

EMF Radiation: A Threat to Children's Health *(Recent World Wide Precedents)*

The current route favoured by BCTC will have new high voltage transmission towers placed within 20 meters of our high school and in close proximity to two other elementary schools and a pre-school. The increased voltage and resulting EMF radiation raises serious concerns about long term health impacts on children attending schools and playing in parks under these lines.

The World Health Organization and the National Institute of Environmental Health Sciences in US have classified EMF as a “**possible carcinogen**” and advocate a policy of “**prudent avoidance**”. The WHO also cites two recent analyses of epidemiological studies that suggest that, in a population exposed to average magnetic fields in excess of **3 or 4 mG** (milli gauss), twice as many children might develop leukaemia compared to a population with lower exposures. This US agency has since “recommended that Power Utilities voluntarily reduce exposure to people where possible”. (www.who.int)

The following examples of the various EMF related precedents illustrate that many world wide communities are evaluating research findings in a more progressive and fair manner and are subsequently acting upon their findings.

- **Edmonton, Alberta (2002)**
On Nov. 8 2002, the city's subdivision and appeal board denied a permit for the Catholic School Board intended construction of a new school some 108 meters away from a 230 kV powerline. They found as fact, that electromagnetic fields are associated with higher levels of childhood leukemia and that the proposed development would not provide a safe environment for the children.
- **Toronto, Ontario (1993)**
In Toronto, Ontario, parents were successful in a campaign to relocate a kindergarten classroom and library at a Bennington Heights elementary school.
- **Boca Raton, Florida (1989)**
A Florida judge ruled that children may not play in a Boca Raton school yard which borders on high voltage power lines.
- **East Greenwich, Rhode Island (1990)**
Rhode Islanders for Safe Power were successful in closing the East Greenwich High School's soccer field where magnetic fields above 4 mG were measured.
- **Connecticut, Hartford (May 6, 2004)**
The Senate approved a bill that requires power companies to bury high-voltage lines that go near schools, playgrounds, daycare centers and residential areas. The passage of this bill is seen as an enormous victory for everyone, especially the children. “The state will now take into account the potentially severe effects of EMF, and this measure represents a strong stand in defense of people's health and safety.” (Rep. T. Klarides)

- **United States (1993-1994)**
On March 25, 1993, California introduced the "Children's Electromagnetic Field Risk Reduction Act of 1993" - "A Bill to establish a national policy prohibiting the location of new public schools and child care centres on real property where the electromagnetic field exceeds an average of 2 mG per day, and for other purposes."
- **Italy (2000)**
Three regions in Italy (Veneto, Emilia- Romagna and Tuscany) have imposed regulations prohibiting powerlines being erected near schools, houses and any other places where people spend more than four hours per day.
- **Spain (1998)**
The regional government of Madrid, Spain has issued regulations and prohibited construction of residential areas, schools and public gardens near power transmission lines.
- **Sweden (1995)**
Sweden became the first country to adopt, from a scientific viewpoint, the principle of prudent avoidance and prohibits high voltage powerlines near schools, residential areas, hospitals and day care centres.

Dr. Havas, currently a professor in the Department of Environmental and Resource Studies at Trent University and one of Canada's foremost authorities on the question of EMF and Health, states that: "There is consistent 2 to 4-fold increased risk of children developing leukemia when they are exposed to magnetic fields exceeding 2 to 4 mG in their homes". She goes on to criticize the inadequacies of current Canadian guidelines: "Federally we need better standards to protect public health. Health Canada says that public exposure to 1000mG over a 24 hour period is safe. The Swedish National Energy Administration recommends that magnetic fields in schools, daycare centres and playgrounds should not exceed 2 – 3 mG. Other countries are considering guidelines in the range of 2 to 10 mG."

Current readings (taken this month) outside South Delta Secondary School and under the power lines at Dennison Park (where the students often have gym) are **30-75 mG**. This is under the present configuration of 138 kV lines carrying 50 MW. The proposed upgrade will increase this to 238 kV and 1200 MW (based on the maximum design capacity) - **an increase of 24 times the power!** How will this increased level of power affect our children today and in the future?

BCTC distributes a brochure stating that by borrowing an EMF kit to measure magnetic fields, you can use this information to "assist you in making an informed decision regarding personally acceptable exposure limits of EMF's". Our children attending schools have no choice, nor do their parents. If they attend the school, they will be exposed.

Given the amount of existing credible evidence citing concern for health risks and EMF levels, and the resulting actions taken by responsible governments worldwide; we believe it is the responsibility of Delta School Board, BCTC, BC Hydro and the BC Government **to ensure that our children are kept safe from harm's way** under the proposed power line configuration.