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April 19, 2006

British Columbia Utilities Commission
6th Floor, 900 Howe Street
Vancouver, B.C.
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By E-mail: commission.secretary@bcuc.com

Attention: Robert J. Pellatt, Commission Secretary

Dear Mr. Pellatt:

**Re: British Columbia Transmission Corporation (BCTC)
Project No. 3698395 /Order No. G-70-05
Certificate of Public Convenience and Necessity (CPCN)
Application Vancouver Island Transmission
Reinforcement Project (VITR)**

Attached please find my Final Argument. Due to my busy schedule, I will not be able to personally present the Final Argument to the Commissioners. Please take necessary action to present this to BCUC commissioners.

You may contact me at (604) 946-9613.

Yours sincerely,

Original signed by:

Dr. Kyong H. Nam Ph.D. P.Eng. (Alberta)
Intervenor C-51

Copies to: BCTC
BCUC e-mail distribution list

Final Argument

Chairperson and Commissioners;

The BCTC has conveniently chosen the ICNIRP / WHO's EMF guidelines, and persistently claims that EMF's from overhead lines or underground lines are safe. However, they are not.

Many scientific organizations such as the National Institute of Environmental Health Sciences have designated EMF's as a toxicant, and the health hazards of EMF's have been established in scientific study after scientific study. For example, through a 6-year, \$7-million dollar study ending in 2002, three highly qualified epidemiologists working for the California Department of Health Services concluded that they were inclined to believe that EMF's can cause some degree of increased risk of childhood leukemia, adult brain cancer, Lou Gehrig's disease and miscarriage. I can provide to you many, many more examples with similar conclusions.

Utility companies in the west dictate the process of research and guideline setting by influencing the scientists involved. To this day, western scientists still take so much pride in the research results based on immediate thermal effects that any scientists who support non-thermal effects are dismissed as wrong, or at best questionable. However, the former Soviet Union was one of the first countries to start fundamental research into the biological and health effects of long-term non-thermal EMF exposure. Based on research results, the former Soviet Union and its allies, including China, adopted far stricter EMF guidelines than those of the ICNIRP / WHO. Today, the UK, Sweden, Switzerland, Italy, the Netherlands, Spain, Norway, Australia, and several States such as California and Connecticut now explicitly or implicitly recognize long-term non-thermal effects, as shown by the adoption of guidelines prohibiting EMF's even at levels much lower than that of the BCTC's overhead or the underground power lines, or by prohibitions on construction of HV power lines within several hundred feet of homes, schools, and the like. Now, collectively more than a quarter of the world's population is protected by these non-thermal EMF exposure guidelines. It is ironic to see eastern countries with historically poor human right records protecting people from EMF hazards much better than western countries.

When comparing immediate thermal effects to long-term non-thermal EMF effects, we can as an analogy say that long-term non-thermal effects are like water dropping from a faucet. Most people would believe such drops are completely innocuous. But after a long time, those very same drops can carve a groove into solid rock. Likewise, years of accumulated effects of non-thermal EMF's can cause terrible damage to the human body.

The "precautionary principle" states that when an activity, technology, or substance threatens to harm the environment or human health, precautionary measures should be taken even if a cause-effect relationship is not fully established scientifically. If we always wait for scientific certainty, it is often too late. As an example, while the smoking-cancer link was noted in the 1930s, proving causality was an enormous task, involving epidemiological studies of smokers, nonsmokers and lung cancer victims, as well as experiments on animals. And although the first studies were published in 1950s, the debate still raged on for decades thereafter. By the time the cause-effect relationship was firmly established, millions of smokers had already died of lung cancer.

Based on both the scientific studies rejecting the ICNIRP / WHO guidelines, as well as the precautionary principle, there is no room in our backyard for new power lines that will last for 60 years. Not overhead, and not underground.

If BCTC engineers were sensible enough, they also would have long ago rejected the ICNIRP / WHO guidelines. If the BCUC allows the VITR project to go ahead through our backyard, we will not stop fighting it.

Thank you,

Kyong H. Nam

PH.D., P.Eng. (Alberta)