

Office of the Minister
of Health



Cabinet du ministre
de la Santé

Ottawa, Canada K1A 0K9

REGION OF YORK
CLERK'S OFFICE

FILE No. - P. 07

→ Dr. Saczek



MAY 02 2005

Mr. Denis Kelly
Regional Clerk
The Regional Municipality of York
17250 Yonge Street
Newmarket, Ontario L3Y 6Z1

Dear Mr. Kelly:

Thank you for your correspondence of December 17, 2004, addressed to the Honourable Ujjal Dosanjh, Minister of Health, concerning the construction of the proposed 230kV double-circuit transmission line by Hydro One from Markham to Newmarket. I regret the delay in responding.

The issue of power-frequency electric and magnetic fields (EMF), such as those from high-voltage transmission lines, and their possible connection to adverse health effects, has been a matter of concern at Health Canada for a number of years.

Public concerns over the possibility that exposure to EMF may present adverse health effects have arisen as a result of the controversial and contradictory findings in scientific research, especially from epidemiological studies (statistically based studies of disease patterns). Over the past 30 years, throughout the world, many research papers and overview reports have been produced, and numerous conferences have been held on the subject. Unfortunately, the findings remain controversial and contradictory, appearing only to exacerbate rather than resolve public concerns. The conclusion, which appears to have been adopted by the majority of experts in the field, is that while there are epidemiological studies that indicate an association between EMF and certain types of

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cancer, other epidemiological studies and the bulk of laboratory studies do not substantiate this association. There is insufficient data to determine whether a cause-and-effect relationship exists. This conclusion is reflected in a number of public information documents, including the following:

- Health Canada's *It's Your Health* document "Electric and Magnetic Fields at Extremely Low Frequencies," which is posted on the Health Canada Web site at www.hc-sc.gc.ca/english/iyh/environment/magnetic.html.
- Fact sheets on the World Health Organization (WHO) Web site:

 "Electromagnetic Fields And Public Health: Extremely Low Frequency (ELF)" at www.who.int/docstore/peh-emf/publications/facts_press/efact/efs205.html.

 "Electromagnetic Fields And Public Health: Extremely low frequency fields and cancer" at www.who.int/docstore/peh-emf/publications/facts_press/efact/efs263.html.

Scientists at Health Canada continually monitor scientific developments on reported biological effects associated with exposure to EMF, conduct research, and have participated in the International EMF Project coordinated by WHO. This project was initiated to address the health issues associated with exposure to static and time-varying EMFs in the frequency range of 0-300 gigahertz, including power-frequency fields such as those emitted by power lines and household electrical appliances.

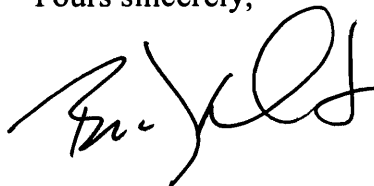
As a result of the lack of hard scientific evidence linking EMF exposure to adverse health effects, Health Canada has no guidelines regarding the exposure of the general public to EMF from electrical installations. Exposure guidelines have been suggested by the International Committee on Non-Ionizing Radiation Protection, whose Web site can be found at www.icnirp.de, and the Institute of Electrical and Electronics Engineers. However, these guidelines are not based on a consideration of risks related to cancer or other health problems since such risks have not been established. Rather, the point of the guidelines is to make sure that the electric currents or fields in the body caused by exposure to EMF are not stronger than the ones produced naturally by the brain, nerves, and heart. For the most part, EMF exposures in Canadian homes, offices, and most other work sites are far below these guidelines.

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As you probably know, provincial governments are responsible for regulating the construction of high-voltage transmission lines. In Ontario, the responsible organization is the Ontario Energy Board. Health Canada's role in this area is to participate in the environmental assessment process by providing expert information or knowledge if the *Canadian Environmental Assessment Act* is triggered. To this end, the Ontario Energy Board, the Hydro One, and other concerned parties should continue discussions so that a mutually agreeable resolution can be achieved. It may be helpful to investigate all possible options, including designs that could minimize any possible effect of an increase in transmission voltage.

Again, thank you for writing.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Brian Klunder', with a stylized, cursive script.

Brian Klunder
Policy Advisor