

June 15 2006

The Honorable Dalton McGuinty, Premier
Rm. 281 Main Legislative Building
Toronto ON M7A 1A4

Dear Premier McGuinty:

Re: Response to Ontario Power Authority Proposal

As health professionals, we are concerned by the government's decision to expand the use of nuclear reactors in Ontario because adequate measures are not in place to protect the public from catastrophic events, to monitor air and water levels of radioactive by-products, or to protect people from chronic exposure to these by-products.

Although we are pleased with the government's position to phase out all coal-fired power plants by 2009 to protect health and the environment from toxic emissions, the hazards to health from nuclear plants are such that we cannot endorse their usage. Others share our concerns.

The International Agency for Research on Cancer (IARC) lists a number of radioactive by-products as carcinogenic to animals, and to children who have been exposed to these radionucleotides which were released accidentally by the nuclear power industry¹.

The U.S. National Academies of Science released a July 29, 2005 report on the health effects of ionizing radiation: The Biological Effects of Ionizing Radiation (BEIR) VII, which confirmed that there is no safe level of exposure to radiation, and that even low levels can cause cancer².

There are regular emissions of radioisotopes from nuclear power plants into air and water. The CANDU reactor emits carbon-14 and tritium, as well as other radioisotopes in minute amounts. Tritium is a radioactive isotope of hydrogen that combines readily with oxygen to form radioactive water. It binds easily with organic molecules including DNA. Tritium occurs in nature at extremely low levels; human activity has substantially increased the levels in our biosphere. This is a concern as it has a half-life of approximately 12.5 years, and the frequent, small amounts released in water accumulate in living organisms. Although about 90% of tritium that enters the body is quickly eliminated, 10% remains where it can cause health, mutagenic, teratogenic and transmutational effects³.

Gordon Edwards, Ph.D., under contract to the Canadian Environmental Advisory Council, has discussed multiple health effects related to nuclear power in his report "Health and Environmental Issues Linked to the Nuclear Fuel Chain"⁴.

The Medical Officer of Health of the City of Toronto, Dr. David McKeown, also expressed concern in his letter to you dated February 3, 2006:

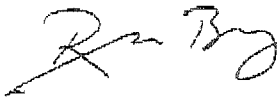
"The risks of radioactive waste continue for thousands of years after the fuel has been used to generate electricity and the waste requires management over this time period. The use of nuclear power creates risks that must be managed for many generations to come. This energy source therefore does not adhere to the key principle of sustainable development. In contrast, CDM (energy conservation and demand management) and renewable energy do not carry these risks and impacts."

Along with the intractable problem of solid nuclear waste and what to do with it, there are the non-quantifiable risks of catastrophic accidents or nuclear terrorism.

While we recognize that no form of energy production is without consequences that can be challenging, the spectre of serious health risks for generations to come makes nuclear power a most unpalatable solution.

We urge you to take these health concerns seriously, do appropriate research, institute much higher levels of conservation, efficiencies and renewable sources of energy, and place a moratorium on any additional development of nuclear power production in Ontario as soon as possible.

Yours truly,



Riina Bray, BAsC, MSc, MD, CCFP, MHSc
Chair, Environmental Health Committee

Cc: The Honorable Dwight Duncan, Minister of Energy
Canadian Association of Physicians for the Environment
Canadian Environmental Law Association
Women's Healthy Environment Network
International Institute of Concern for Public Health
Canadian Partnership for Children's Health and Environment

REFERENCES:

1. International Agency for Research on Cancer: <http://monographs.iarc.fr/htdocs/indexes/vol78index.html>
2. Biological Effects of ionizing Radiation (BEIR) VII report:
<http://www.nuclearactive.org/news/070605.html>
3. Tritium, Properties, Metabolism, Dosimetry: http://www.cerrie.org/committee_papers/Paper_9-01.doc
4. Health and Environmental Issues Linked to the Nuclear Fuel Chain: http://www.ccnr.org/ceac_B.html