

Submission to the
Bureau d'Audiences Publiques sur l'Environnement
(Office of Public Hearings on the Environment)
on
Uranium Mining in Québec

It is my considered opinion that the uranium mining, processing and nuclear power industry should be phased out as quickly as possible, everywhere. It is a matter of human health and of setting an example for the rest of the world. This is entirely consistent with what many people see as Canadian values.

I assert the following:

(1) Radiation is harmful to humans. It is insidious because its effects are usually not immediately apparent or detectable. The effects come years or decades later, and there is usually no method of allocating the medical effects to the original radiation dose.

(2) At every stage of the process, from uranium mining to storage of waste and used fuel, the dangers occur. Despite the best efforts of managers, accidents will happen. Despite the best efforts of the regulators, people will ignore rules and endanger others.

(3) It is inevitable that man-made radioisotopes enter the environment; indeed some enter deliberately and end up in consumer products, buildings and transport systems; this occurs, for example, when steel from reactor plants is recycled and not all the radioactive material is removed.

(4) After half a century nobody has found a satisfactory method of getting rid of used reactor fuel and none seems likely. It is necessary to store it indefinitely. This imposes a burden on future generations. We have no idea what society will be centuries or a millennium from now; it may be incapable of the required safe storage, so we should not plan on it.

(5) There are relatively benign alternatives to nuclear power that do not carry the long-term burdens and risks of nuclear power. They may even be cheaper when all costs are included. There are places with sunshine and/or wind in abundance and we should be using these to generate electricity; we should be developing this technology and selling it abroad, not uranium.

I have seen the effects of radiation first hand. A good friend of mine died recently from lung cancer. He had no normal risk factors. His cancer almost certainly came from inhaling radioisotopes while working downwind from an atmospheric nuclear test in Nevada some decades earlier.

How many people are you willing to kill by putting radioisotopes into the environment? How many are you willing to suffer from cancers. Please do the calculations.

When Canada provided a nuclear reactor to India, a friendly country, India used it to make fuel for an atomic bomb. There is no method of preventing this sort of thing. The only way to be certain that civilian nuclear power will not spread to military applications will be to eliminate the use of nuclear power,

Sincerely,
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In much of my career I have been involved with radioactive material. I spent two years after my doctoral studies at Atomic Energy of Canada Ltd. in Chalk River (1963-1965), and from ca. 1975 to 2005 my research involved the use of alpha, beta and gamma radiation sources in my physics research laboratory, and in teaching laboratories at Simon Fraser University. It is a far from trivial matter, and perhaps impossible, to ensure safe use of radiation sources. Both at Chalk River and at SFU I encountered situations in which people were put at risk. In two of these occasions it was commercial manufacturers in the UK and USA who were at fault.