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## **Nuclear power: frightening glacial implications, questionable economics, and ties to weapons manufacturers, says Connell**

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Letter to the editor

The announcement by Premier Graham recently of a proposed new nuclear reactor at Point Lepreau defies belief. The premier, it seems, has lost his moral compass.

The last ice age retreated approximately 9,000 years ago. During that glacial period most of Canada, including the maritime region, was covered with a sheet of ice over one kilometre thick. We live in an interglacial period which may endure 20,000 to 50,000 years. The weight of continental ice sheets depress underlying rocks several hundreds of metres and even kilometres such as in present day Greenland.

Continental glaciers creep outwards from their centres at an inexorable rate of one to several metres a day toward its margins scouring and grinding down the landscape in the process. When the continental ice melts back during warm interglacial periods, the bedrock shifts and rebounds upwards along fissures resulting in earthquakes from low to high intensity. These glacial processes are vast, unstable, unpredictable ongoing events acting on our landscape. Radioactive elements produced in nuclear reactors have half lives that range from a few hours to thousands of years. Plutonium, a product of nuclear reactors and a crucial ingredient in most nuclear weaponry requires at least a quarter of a million years to reach a non-toxic equilibrium safe to the environment. Burial of radioactive elements that decay in more than 10,000 years therefore is not an option in glaciated terrain, neither should be the siting or dismantling of nuclear reactors.

So why is the provincial government siting another reactor at Point Lepreau? The present Pt. Lepreau reactor, as many people know, is sited adjacent to the trend of a major regional fault (a break in the earth's crust) which extends from Oak Bay near St. Stephen across Nova Scotia to the Grand Banks. This fault facilitates glacial rebound along its axis and hosted, as recently as 1929, an earthquake greater than 6 on the Richter scale. That quake caused a Tsunami which engulfed villages along the shore of Newfoundland and sent sediment in a colossal underwater slide and turbidity cloud as far as the mid Atlantic ridge.

We would be well served in New Brunswick by the precautionary principle. The risk prone atomic agencies of the US driven by private sector lobbies had enough sense not to site reactors along or near major faults of equivalent stature.

Furthermore the complicity of the Canadian nuclear industry and the US nuclear weapons manufacturing sector from supplying the uranium for the Hiroshima and Nagasaki bombs to the alleged shipping of depleted uranium for weaponry used in Bosnia, Iraq and now Afghanistan ought to help our premier regain his bearings. But perhaps he doesn't know these things or the effects of depleted uranium on the people and livestock of those countries.

To stray out of the realms of geology and nuclear weaponry into that mysterious science of economics confronts one with an even more puzzling and disoriented policy. The announcement to build a second nuclear reactor flies in the face of the decision handed down by our Public Utilities Board which rejected the siting of a second reactor on economic grounds.

If the sum of the hidden costs of nuclear power, including the multi-billion dollar task of building, running and dismantling a reactor, ensuring its safe storage and the storage of spent fuel into perpetuity are taken into consideration, tossed in with any potential havoc caused by terrorists or accidents, there is no possible way nuclear power can be economically, let alone socially acceptable. Except of course for the Americans who will consume the electricity generated while we assume the risks and pay the long term costs of constructing, pollution, clean ups, dismantling and disposal.

How politicians and businessmen can subscribe to neo-liberal laissez faire economics and accept nuclear power beats me. But then, I was brought up to balance books and to consider the externalities.

It may be unkind to wayward souls who have lost their compass, after all the premier may have caught another case of Laissez Faire Double Talk Disease to which he is so prone: namely, subsidies (a few of the afflicted like to use the term socialism rather than subsidy) for the proponents of nuclear power and marketplace economics for the rest of us taxpayers who must sooner or later pay the bills foisted on them by bankrupt nuclear generators, containment and clean up of the radioactive mess forever, all of which, of course, is impossible.