



## **Great Lakes Forum—Eugene Bourgeois, SOS Great Lakes**

Good afternoon,

My name is Eugene Bourgeois and I am a retired sheep farmer living in Inverhuron, home to both a nuclear power plant and the proposed Deep Geologic Repository for low- and intermediate-level nuclear wastes, right here beside and below Lake Huron.

It is surprising to me that radionuclides are not already Chemicals of Mutual Concern in the Great Lakes Water Quality Agreement under Annex 3, as recommended by your own Nuclear Task Force 20 years ago.

We learned in the late 1880's that when we use our rivers as sewers innocent people die. We were reminded of this recently in Ontario when Walkerton's water was contaminated by farm sewage and a number of people died. In each case, the solution to pollution was believed to be dilution.

The National Academy of Sciences has established that there are no known safe concentrations of exposure to radionuclides and so, has adopted a Linear No Threshold standard. The recent KiKK study in Europe demonstrated the strong statistical correlation between exposure to chronic low doses of ionising radiation and childhood leukaemia, effects that increase the closer one lives to a nuclear power station, even when these are operating as permitted. Even without this, we still manage to be exposed to the harmful effects of chronic, low doses of radiation from both cosmic and solar sources, each of which can cause sickness and death.

During the Hearings for DGR, we learned that OPG's long-term plans for this radioactivity is for it to be discharged into the groundwater and from there to Lake

Huron. It claims this won't happen for more than a million years, similar to WIPP. WIPP failed catastrophically after only 15 years.

In the 1950's, expectant mothers were X-rayed to determine the relative health of their babies. It was only after Alice Stewart organised the Oxford Survey in England and analysed these data that she showed X-raying foetuses itself led to early childhood death. Buster Brown shoes offered to X-ray your feet when I was a child and many of those adolescent boys who did so are sterile today.

The Great Lakes are the source of drinking water for more than 40 million Canadians and Americans. Water is something each of us needs every day of our lives. Mothers need it to mix baby food for their children. It was a mere 75 years ago that we first split the atom, setting the stage for nuclear power production. In every case our initial concerns about the impacts of exposure to ionising radiation have been far too liberal to safeguard people.

Radionuclides must be included and listed as Chemicals of Mutual Concern in Annex 3. Without having a clearly identified understanding of them and their inventories we will not be able to research their potential adverse health effects on the populations who live near and rely on the Great Lakes for water.

Thank you