

Les enjeux de la filière uranifère au Québec

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Wednesday, 29-Oct-14

Dear Sirs and Madams:

Re: Uranium Mining in Quebec

I strongly support a ban on uranium mining in Quebec as British Columbia , Nova Scotia and Virginia in the USA have done already.

As a medical doctor, I feel that utilizing uranium that emits ionizing radiation is bad for human and environmental health.

Uranium mining releases radiation into the environment; air, earth, water and hence into our food chain. Alpha particle emitters are extremely dangerous when taken internally such as in the form of radon gas that is now the second commonest cause of lung cancer and is an occupational mining workplace compensable disease in Ontario.

The degradation products of uranium, uranium daughters, in some cases are extremely long lived, thousands of years, causing a lasting problem.

Uranium mining contaminates the air when the tailing ponds dry out during a drought and the radiation becomes air born and can travel great distances.

Uranium mining can contaminate the water when a retaining dam breaks as it did

at Rabbit Lake in Saskatchewan in 1985-86. The most recent tailings dam break occurred at Imperial Metal Corporation's Mount Polley, British Columbia gold and copper tailings pond breach 4<sup>th</sup> of August, 2014 but the same can occur at a uranium mine. I used to be the Mayor of Kirkland Lake, (1997-2000) near Rouyn-Noranda, Quebec, a gold mining town. The mines first put their tailings into the Kirkland Lake and thus we don't have a lake. They now have the tailings in an above ground tailings pond that could potentially break. Near us, was a breach of a tailings pond into the Matachewan River in 1990. The various mining companies like Cameco claim that their tailings are safe in that they are in former lakes or pits below the surface, but their Key Lake Deilmann open pit suffers from periodic sloughing of the pit sidewalls that can affect the permeability of the retention system (2004). Rabbit Lake has the highest uranium discharges into the environment in 2010. They had a leakage from the mill floor in Jan. 26<sup>th</sup> 2008 at Rabbit Lake. They have also put tailings in valleys that have a dam at one end that could leak. Uranium mines are usually in the hinterland and can be exposed to forest fires that could harm a mine.

Uranium mining also uses large amounts of water in the mining process that can get contaminated.

It is our Native people who often work in the mines and suffer the consequences such as miscarriages, genetic defects, cancer, heart conditions, etc.

Uranium, as yellow cake, then requires transportation that can lead to further air, water and soil contamination when highway or rail accidents occur such as at Lac Megantic .

There is a general consensus in the scientific community that there is no safe level of exposure to ionizing radiation and that background radiation leads to genetic damage, cancers such as leukemia and thyroid, infertility, birth defects and miscarriages, certain autoimmune diseases, chromosomal damage causing disorders such as Down's syndrome and cardiovascular and renal impairment. Uranium is chemically toxic, is a heavy metal and toxic in that regard and is a radioactive toxin. The time span maybe as short as 5 years for leukemia but may take 10 to 40 years for other cancers and cardiovascular and kidney damage. The damage can be caused by the ionizing radiation giving electrical charges to atoms

that can then become free radicals and cause genetic damage as well as direct destruction of DNA.

The U.S. National Academy of Sciences concluded in 2011 that there is still no proven technology to ensure safe long term storage of radioactive mine residues.

As Quebec has stopped mining asbestos because it is hazardous, so too does it need to ban the mining of uranium.

The Nobel Prize winning International Physicians for the Prevention of Nuclear War has been calling for a halt to uranium mining worldwide.

The Canadian Association of Physicians for the Environment (CAPE) and Physicians for Global Survival (PGS), representing thousands of doctors in Canada and hundreds of municipalities have taken a stand against uranium mining.

We in PGS believe that there is a nuclear chain that leads from mining uranium to uranium enrichment that can lead to depleted uranium that we shoot at our enemies, high enrichment for nuclear bombs or for lesser enrichment for nuclear power. Nuclear power's by-products are tritium and plutonium that are both used for nuclear weapons. The end product is nuclear waste that we still have not solved what to do with it. Along this whole chain, radioactivity is given off.

While some will claim that the radioactivity is so small as to not be a problem, it is a problem as radiation accumulates over time, and is certainly a problem if taken internally via the air we breathe, the water we drink and the food that we eat. Alexander Litvinenko, the former Russian spy, was killed by the ingestion of a very small amount, about ten micrograms of polonium 210 that he ingested via his tea that was poisoned. Polonium is an alpha emitter and when taken internally is deadly.

For all of the above reasons, I trust that you ban uranium mining in Quebec.

I will mail this letter along with a booklet on Uranium Mining and the nuclear chain put out by IPPNW of which I am on the board and council .

Sincerely,  
  
Richard Denton