

RESPONSE TO THE UDP REPORT - SASKATOON PUBLIC CONSULTATION NUCLEAR WASTE

Moderator Dan Perrins, Saskatchewan Neighbours!

Where will we put the swimming pool? If a nuclear reactor is placed in Saskatchewan, it will need a swimming pool to cool off the burnt fuel rods for 7 years before they are placed in casks for the next 10 to 100 years.

Will it be in Premier Brad Wall's backyard? Will you offer your backyard? You would be well paid for it! Will it be in Lloydminster, or North Battleford, or Prince Albert?

This nuclear waste is very toxic and dangerous! If you take a handful and hold it at arm's length, it would kill you in about one minute from the extreme radioactivity!

When fission occurs, it changes around the electrons, protons, and neutrons so that 211 different lethal chemicals are produced. Their radioactivity is measured by their half-life—the time radioactive disintegrations go on till half the source is gone, then the next half, then the next half, this going on, frequently for hundreds and thousands of years.

The USA, with their 104 swimming pools, have built up a stockpile of 70,000 metric tonnes—enough to cover a football field 20 feet deep. It has spent \$13.6 billion dollars over 20 years to build a special deep rock depository in Yucca Mountain, Nevada. Because of geologic faults, earthquakes, water migration in rocks, protests of citizens of Nevada, it has proved unsatisfactory. President Obama has suspended the massive funding, so now the USA is back to square one, starting research all over again.

Canada has accumulated 38,408 metric tonnes of high level nuclear waste—enough to fill five hockey rinks up to the boards. After 60 years scientists still do not know how safely to dispose of it.

Atomic Energy of Canada Ltd. (AECL) took 15 years of research at a cost of \$700 million dollars to develop an elaborate plan for deep rock burial. Part of the research included the Whiteshell deep rock shaft near Pinawa, Manitoba. Recently, it has been shut down and abandoned because of continuous flooding by water, like all the deep rock gold mines across Canada. Geologists have known for years that there is salt water, under tremendous pressure, under the Pre-Cambrian rock in Canada. Not as dry and solid as it sounds!

The Scientific Review Panel examined the AECL plan and found 90 problems that needed to be addressed. The Seaborn Commission spent \$7 million dollars and eight years holding consultations all across Canada, and found the AECL plan unacceptable.

The Federal government contravened the Seaborn recommendations, and gave the whole problem over to the uranium companies to fix. Whereupon, these corporations formed the Nuclear Waste Management Organization (NWMO) which has now come up with a deep rock burial plan again.

Now just recall the staggering facts about these nuclear wastes and their longevity in terms of their half-life, for instance:

radium-226	=	1600 years
plutonium-239	=	24,400 years
thorium-230	=	77,000 years
cesium-135	=	2,300,000 years
iodine-129	=	15,700,000 years
uranium-238	=	4000 million years

The UDP Report says very little about these horrendous facts. It makes brief reference to the safety of workers and citizens, and the dangers of long-lived isotopes and fission products, (pp 4(b), 13A, 37(b), 70) It does admit: "Given its radioactivity, used fuel and other high level wastes remain hazardous to humans and the environment and need to be safely and securely contained and isolated for periods of up to hundreds and thousands of years."(p.74)

But the writers of this Report take no responsibility for the legacy that will be inevitably left to future generations of Saskatchewan citizens. I expect that their response will be that the NWMO will take care of the problem with deep rock burial. No mention of underlying pressurized brine. No mention of the cracks and fissures in rock following drilling and blasting. No mention of microbes and water migration in rock. No evidence that the system will work. No acknowledgement that scientists can't predict reliably that far into the future.

Moreover, the revised NWMO plan is simply a revised version of the earlier AECL plan, stretched out over three long stages, encompassing a hundred years or so, with a fancy title added, namely, "Adaptive Phased Management." No new discoveries since the AECL plan.

Now, the NWMO is undertaking a "citing process" for burying nuclear waste in Saskatchewan. The workers of Saskatchewan mined and converted the ore into yellowcake, at risk of radiation danger to themselves. Ontario corporations used it to produce electricity, and profited from that electricity. But now, Saskatchewan should take back the long term poisonous wastes for good measure. Strange logic!

So, two big questions remain. Whether or not, we will construct a swimming pool? Or, where will we locate the swimming pool?

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