

December 12, 2008

To: Nuclear Waste Management Organization

From: Walter L. Robbins

Subject: My comments on your nuclear waste discussion document - Moving Forward Together: Designing the Process for Selecting a Site:

It is a serious mistake to proceed any further with a process which is intended to ultimately lead to permanent underground emplacement of irradiated nuclear fuel waste. Why do I think that?

First, a little history here: For decades, your (the nuclear) industry has taken a number of different approaches in its attempt to achieve its unyielding, and obviously, continuing, objective of getting the waste into the ground, out of sight and out of mind.

During the late 1970's your predecessors (Atomic Energy of Canada and Ontario Hydro) attempted to find a specific nuclear waste site in central and northwest Ontario, exploring old mine shafts, drilling bore holes in various granite rock formations and, in the process, disrupting many communities in the region. The sociological fallout from those efforts was significant, to say the least.

When that effort failed, the next attempt was to downplay the siting process and to promote such activities as "geological research."

When that "foot in the door" effort failed, your industry finally turned to what was surely its trump card, sitting at the eastern edge of the Cambrian shield in the rural municipality of Lac du Bonnet, near the Whiteshell Nuclear Research Establishment (WNRE) at Pinawa, Manitoba. The Lac du Bonnet granite batholith ultimately became the URL: the Underground Research Laboratory. It quickly became very obvious that the not so hidden agenda for that batholith was the full scale underground repository, with a configuration, not unlike the diagrams you are currently projecting. The "this is only research" mantra was periodically augmented with statements from WNRE officials to the effect that if the community wanted the full scale dump, perhaps it could be arranged, and even cheerier notions that Manitoba could become the nuclear waste dump for the rest of the world. The community decided it did not care for the informal offers. Nor did the government of Manitoba when it passed legislation against any such facility within its environs.

For the history students in your midst, grim details about the Manitoba episode can be found at my Great Canadian Nuclear Waste Saga web site: <http://www.nukeshaft.ca>

Now, as an integral part of the nuclear industry, the NWMO continues in this rather compulsive exercise of locating an underground site to dump these radioactive substances, some of which, as you well know, pose dangers to living things for hundreds of thousands and even millions of years.

Your enabling legislation actually permits you, not only to deal with three specific options for the waste, but even to cast further afield in the realm of scientific exploration for solutions. Unfortunately, and sadly predictably, you chose to move ahead in the same old path with the same old objectives, this time around wrapped in nicer, prettier packages than those created by your predecessors.

But any pretense of science went down the tube when your final report managed to open up your siting options with a simple declaration that so-called "Ordovician Sedimentary" rock, (which can be found in many parts of Canada), is now considered suitable media for permanent burial of irradiated nuclear fuel waste.

Aside from the fact that a plan to permanently bury nuclear fuel waste is inherently immoral, unethical, unscientific, and downright mean-spirited to future generations, it is simply not a good idea.

Change is possible. And since you are prepared to wait some three hundred years before a dubious underground dump is permanently closed anyway, why not listen to some of your consultants who, in their discussion papers, seemed to be thinking creatively and seriously about other options. I was particularly impressed with a combination of on-site storage coupled with advanced partitioning and transmutation, as follows:

In NWMO Background Paper: 6.5 Technical Methods: Range of Potential Options for the Long-Term Management of Used Nuclear Fuel, by Phil Richardson & Marion Hill, Enviro Consulting, it is stated that "It is recognized internationally that the possibility that P&T (partitioning and transmutation) could become a readily available and very attractive treatment option in several decades time, (and) could be a reason for choosing storage rather than disposal."

Furthermore, in NWMO Background Paper: 6-1 Technical Methods: Status of Reactor Site Storage Systems for Used Nuclear Fuel, by SENES Consultants Limited, it is stated that the dry storage facilities of irradiated fuel at Canada's nuclear power sites currently have a design life of 50 years and that "...the actual life of dry storage containers is thought to be 100 years or more."

Put two and two together, and you have a compelling case for continued on-site storage, (with augmented security, of course), coupled with some serious research and development into transmutation technologies, (which to my knowledge, no one in Canada is pursuing).

And, who knows what else might come along?

Having worked in bureaucracies in both Canada and the U.S., I understand how difficult it is to achieve major changes in a "corporate culture." But hey, when it comes to nuclear waste—better safe than sorry.

Walt Robbins