February 26, 2004

Ms Elizabeth Dowdeswell
President
Nuclear Waste Management Organisation
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Ontario M4T 1E2
Canada.

Dear Ms Dowdeswell,

I found that the document is a good start to your intended series of Discussion Documents. There are however some points of principle which I would like to discuss in this letter and further, attach a list of minor points.

Nuclear Industry

The nuclear industry typically enters into waste projects with an apologetic attitude, as if the problems are insurmountable and risks will surely exceed any benefits. Previous attempts in other nuclear countries have often failed and this sets the tone. I believe that in the well-managed programs, there is no longer the need to be apologetic.

For three decades the nuclear industry has laboured, wrongly, under the misapprehension that it was the only industry that produced potentially hazardous waste. All industrial processes produce waste, much of it equally hazardous. I believe that this industry should go forward in the belief that its wastes are identified, quantified, relatively small in volume, contained and fully accounted for. What other industry can say that? Confidence is growing for the safe disposal of nuclear waste.

Nuclear waste disposal is advancing in Finland, Sweden, and to some degree in the USA. With these precedents in place, Canada can surely follow. Communities should see a repository as a critical industry that needs to be well managed but it could bring into its area capital, jobs, and improvements to health and education. There is the need for NWMO publications to be even-handed but to have an underlying sense that the disposal will succeed. Is the document ‘too nice’?

Cultural Overlay

As aboriginal land issues could impact on much of the ‘Canadian Shield’ areas, I can see that NWMO will be particularly sensitive to this. However it could be debated that all people, aboriginal and European stock alike, will have the same innate attitudes to the prospects of a repository in their area. Most will fear radiation, distrust scientists, government departments and organisations that work alone, be concerned about any possible genetic impact and have a similar short term horizon when faced with any long-term environmental issue. I suggest that cultural issues are an overlay on these underlying concerns. The degree of weighting to give to ethnic variation has no doubt be debated at length in NWMO.

Attempts to placate any group will not necessarily bring success. Overcoming innate fears and adopting a 'Voluntary-Choice Process' should finally solve the issue of waste disposal.

The document includes many references to the aboriginal people, a prime example being p15 **Implications for the Dene**. Surely weapons and wartime actions, neither of which were directed by the Dene, should not have a place in the current discussion on Canadian civil wastes from nuclear power. While the topic of the bombing of Hiroshima and Nagasaki has been debated at length, it is to be recognised that both cities now depend heavily on nuclear power. Their respective utilities, (Chugoku Electric Power Company Inc.; Kyushu Electric power Company Inc.) are probably partly dependent on Canadian uranium and participate in Japan's national waste disposal effort. Canadian nuclear waste arising from nuclear power must be judged on its own merits and not be tied back to past weapons use of uranium or plutonium. To do so could be playing into the hands of those who have another agenda? I do not believe that there should be any connection between weapons and NWMO's work on the disposal of civil waste.

Financial structure

A logical Question that could be added is **"How will waste disposal be funded?"** The probable financial structure for NWMO is described briefly on p13. What is meant by 'implementation phase'? How will the moneys be secured for future work? What organisation will have oversight of the reserves and approve expenditures? In most nuclear countries, it is the user of electricity that pays, such revenue being collected by the utility, transferred to government and then perhaps to a designated fund. Is this also the Canadian way? In Sweden, for example, the sum of monies in the fund now exceeds the current liabilities and the rate of collection has been reduced.

I note the phrase "polluter pays" p36 dot 3. As the nuclear power utilities and any subsequent waste industry do not intend to pollute (whereas some other industries do), the phrase is offensive. It is the type of comment that gives a reader a subjective view of our industry. "User pays" is more appropriate and factual if the finance train mentioned above is adopted.

Ownership

Who will own long-lived waste? Clearly it is owned by the utility when produced and during on-site storage. Should it then transfer to a 'waste entity'? Once placed in a repository, who will own it? When the repository is closed, who will own it? In 1000 years time, who will own it? This issue also needs to be considered if the prospect of 'retrievability' is adopted.

Retrievability

The document touches on the prospect of 'retrievability' although at other times states 'without the intention of retrieval or reuse' (e.g. see p 23 last lines). As yet industry is undecided as to whether to push for 'retrievability' or not. The need for possible retrievability arises due to public concern that there may be a technical failure in the future. It also comes into focus as a counter to the public's relatively

short time horizon. If authorities wish to retrieve the waste in the future, then it is technically achievable and this could be shown.

Research into the underlying thoughts of the public with respect to retrievability should be undertaken and I would be pleased to participate. This would then indicate how much emphasis industry should place on it. Should NWMO show the technical aspects of retrieval? Other nuclear countries would also be interested in the results of such research and may wish to participate.

There appears to be a good fit between the Aboriginal 'seven generation' philosophy and retrievability. What better response can there be but to say 'if a repository defaults (in seven, 14 or 21 generations) the wastes can be retrieved and here is the method that can be used.

Voluntary-Choice Process

Perhaps the issue of 'voluntary-choice' for the siting of a repository should have a profile in the work of NWMO. I suggest that this be considered and if found plausible, develop a strategy for that purpose. By the time of the next Discussion Document, this process could be well defined. Also during the second half of 2004 it might be possible to hold the first symposium for interested communities.

Document figures

Many of the figures in the document (e.g. 4.1, 4.3, 4.4, 4.5, and 4.6) are too small and too simplistic to be useful – almost sugar sweet and therefore potentially misleading and not trusted. The critical figures should be on a scale that allows for all pertinent detail to be shown. If so presented, the reader will gauge an understanding of the intent and perhaps increase confidence in the concept. Take figure 4.1 for example. This small sketch represents a highly capitalised, technically complex, safe, (retrievable?) waste disposal repository. It should show security, people, waste rock pile from underground development, dimensions, infrastructure and transport. It deserves a 2-page spread.

I look forward to your comments.

Sincerely,

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