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Response to Comments by Pieter Van Vliet on
United Church of Canada Submissions to
the Nuclear Waste Management Organization
April 2006

The submissions by the United Church of Canada (UCC) to the Nuclear Waste Management Organization (NWMO) were offered in the hope that they would contribute to substantive discussion of the complex ethical issues related to nuclear waste. As noted in the opening remarks of the first submission from the United Church to NWMO (UCC 2004), there is a diversity of views in society and in the Church, and the perspectives reflected in the UCC submissions will not be shared by all members of the United Church of Canada. Mr. Van Vliet is one who does not share this view (Van Vliet 2006); he also does not agree with the conclusions of the NWMO (Van Vliet 2005).

As we understand his position, Mr. Van Vliet wants immediate implementation of deep geological disposal.

The NWMO has reviewed options for long-term management of nuclear fuel waste and assessed extended storage at reactor sites, centralized storage, and deep geological disposal. Each of these options was found to have short-comings and uncertainties leading to the recommendation of a fourth option of adaptive phased management. This fourth option acknowledges both the need for further investigations on nuclear waste management approaches *and* the pressure for some action to be taken.

The United Church of Canada sees the NWMO study to date as one step in a series of broad public consultations that are necessary and notes that if the adaptive management approach is adopted, in its implementation

- the importance of social acceptability must be upheld as a fundamental decision-making criterion;
- site selection must not be biased by *early* placement of the waste in centralized storage at the site;
- decision points must have sufficient choice to allow change in the core concept and reversal of course of action;
- public participation must be meaningful and remain broad, engaging communities directly impacted *and* those indirectly impacted as taxpayers, electricity rate-payers, and citizens.

The following comments are grouped under headings which correspond to the relevant sections of Mr. Van Vliet's document, Response to: The United Church of Canada Submissions to NWMO (Van Vliet 2006)

Introduction

All the submissions by the United Church to NWMO, and to the Seaborn Panel in the past (UCC 1996), were based on United Church policies, which were adopted by a representative democratic process, and each submission was mandated and endorsed within the General Council of the United Church of Canada.

In the process of policy development and the application of policies to issues of concern, there is a commitment, no less than the commitment of Mr. Van Vliet to "find solutions acceptable to society and protect the public."¹

Environmental Assessments

UCC submissions on NWMO documents have been well referenced and reasoned, based on study of and participation in the material underpinning the NWMO documents, as well as other resources. These submissions are not focused on generating controversy. Rather, these submissions and UCC participation in activities within the NWMO process have been focused on contributing to the defining of the issues, development of ethical frameworks, and expanding the knowledge base and thinking strategies.

Far from blocking progress, UCC has cooperated at every opportunity in Scenario Workshops, Nature of the Hazard Workshop, Dialogue Sessions, meetings and communications in the NWMO engagement process on nuclear waste management. These contributions have been acknowledged as helpful by members of the Roundtable on Ethics and by the NWMO throughout the process, including a letter of appreciation from the NWMO president to UCC, with encouragement for on-going involvement, after the November 2005 submission to NWMO by the United Church of Canada.

The United Church has addressed nuclear power in the context of climate change and the relevant policy, Energy in the One Earth Community (UCC 2000), is cited in UCC submissions to NWMO (UCC 2004, March 2005, April 2005). All submissions by the United Church to NWMO are consistent with this policy.

Key Principles

Safety, security, polluter pays and not passing the burden to future generations are important considerations, *and* there are other ethical and social considerations within the complex ethical issues related to nuclear wastes. The United Church, with the perspective of the world as a sacred trust, shared the application of ethical principles of the One Earth Community (UCC 1992) and the Earth Charter (Earth Council 2000) in the NWMO process, supported a priority for Aboriginal perspectives, and responded, in dialogue and application², to the ethical framework proposed by the Roundtable on Ethics (NWMO 2004).

¹ Quote from Mr. Van Vliet (2006).

² See Appendix of Submission 3 (UCC April 2005).

Hearings and Dialogues

Although the problem of nuclear fuel waste has been an issue for almost forty years, there has yet to be public dialogue and consultation in an open process with independent decision-makers who have a mandate that allows social acceptability to be addressed in the full context of the issues in which it is perceived by society, which include the full complex of waste problems in the nuclear fuel cycle starting with the mining and tailing issues; the risks of proliferation of military applications for nuclear materials including depleted uranium; and the question of the future role of nuclear power in Canadian energy and export policies.

Further complicating an informed decision is the difficulty of getting accurate information, as the Very Right Reverend Dr. Lois Wilson, former Moderator of the United Church and a member of the Seaborn Panel, noted: “the main problem we met in all our hearings was the secrecy surrounding this subject and the problem of getting accurate information from both the opponents and the proponents.” (Wilson 2001)

The United Church Of Canada Position

Involvements of the United Church in energy issues, including climate change, conservation, renewable alternatives and nuclear power, are founded on a policy framework which reflects respect for the Earth, protection of biodiversity, repair of the environment, social and economic justice, promotion of equity and sustainability, responsibility to future generations, promotion of non-violence and human rights, meaningful participation in decision-making, and accountability in positions of power.

It is beyond the scope of the submissions to NWMO to present an holistic view of all aspects of the energy policy issues and the nuclear industry. Therefore, the UCC submissions focus on the topic of the NWMO mandate, nuclear wastes, while indicating the need to broaden the thinking.

The United Church sees the NWMO study to date as one step in a series of broad public consultations that are necessary. Clearly, the evaluation and comparison of energy options is outside of the responsibility of NWMO. The United Church has urged the provincial and federal governments to hold broad public discussions on Canadian energy policy, and to have meaningful public participation in a decision about the future of nuclear power in the energy policy (UCC Nov.12, 2005).

The United Church is not blocking immediate nuclear fuel waste management. Immediate steps of waste management are presently implemented at reactor sites and this phase of nuclear fuel waste management will continue as long as waste production continues.

The work of the United Church acknowledges that there is no management option that will not place a burden on future generations; disposal is not a solution, it is a management option with its own set of problems, risks, uncertainties and areas of ignorance. If production of the waste continues, this burden will continue to be generated

and immediate movement of the aged waste will not remove the hazard or the burden because it will be on-going and additive.

The mistrust that is noted in the UCC report is within the history of these issues. Hopefully, the process of dialogue and public engagement begun in the NWMO process will continue. There is no inferred extension of distrust as Mr. Van Vliet claims. These accusations that UCC is discrediting, directly or by inference, professionals in research and development, workers in the industry and regulatory bodies are unfounded and unhelpful to dialogue and co-operative learning. The UCC representatives who were at NWMO activities are themselves scientists, ethicists, and other professionals from various field, and they worked respectfully and fruitfully with scientists, social scientists, engineers, other professionals and concerned citizens from academia, industry, regulatory bodies, government and citizen groups throughout the NWMO process.

The people involved in the formulation of UCC policies upon which this work is based, the people writing these reports, and the people in committees approving these reports are also people who “have dedicated the better part of their lives to researching and developing acceptable solutions to perceived and identified problems.”³

The United Church has not suggested diminishing the efforts of science and technology on safer and more secure waste management options; the UCC has been calling for more effort, and asking for active support for research into a means to rapidly reduce radioactivity of existing nuclear wastes, without environmental hazard and without proliferation risk.

Environmental Impact

The United Church of Canada is very aware and involved in the climate change issues. The United Church has been and will continue to be actively involved in the World Council of Churches climate change network and in the United Nations’ climate change conferences.

Careful study lead to the UCC policy statement, Energy in One Earth Community (UCC 2000). This policy is built on over two decades of work by various General Councils and other church courts who explored the ecological and social justice dimensions of nuclear power, fossil fuels, hydroelectric developments, conservation, efficiency and renewable energy sources. Within this policy, the United Church of Canada states that Canada needs to shift its energy policy from an emphasis on large-scale fossil fuel and nuclear energy generation projects to a focus on ‘soft-path’ energy options including conservation, increased energy efficiency and the development of renewable alternate energy sources. Further, this policy affirms the appropriateness of responding to the global warming trend by using soft-path energy approaches as the primary strategy for reducing fossil fuel emissions rather than expanding nuclear power production.

One cannot limit a discussion on the environmental impacts of wastes from nuclear power to levels of greenhouse gas emissions. The nature of the hazard of wastes

³ Quote from Mr. Van Vliet (2006).

associated with nuclear power lies primarily in the radioactivity and chemical toxicity of the wastes (NWMO 2005). The Conference of Parties to the United Nations Framework Convention on Climate Change has said “No” to including nuclear power as an option within the clean development mechanism.⁴

Nuclear Energy Production

We have as yet a very short experience with the overall safety and security requirements of the nuclear power option. Based on the inherent hazards of nuclear fuel waste, “the NWMO has taken the position that used nuclear fuel will need to be contained and isolated from people and the environment essentially indefinitely.” (NWMO 2005, 348)

There is significant debate about what role nuclear energy should play in an environmentally responsible and economically sustainable energy policy. To dismiss as fearful, uninformed or misinformed those who question and critique the nuclear power option is unhelpful and fails to recognize the thoughtful, intelligent contribution brought to the dialogue on nuclear issues by the opponents. All sides have knowledge to share and the United Church has been calling on the government since 1980 to bring accurate information on the many aspects of our energy options to a public debate on energy policy (UCC 1980, 1982, 1990, 1996, 2000, Nov. 12, 2005).

Medical Applications/ Diagnostic Procedures/ Other Uses of Radioactive Isotopes

Nuclear power expansion is not necessary to support medical and other applications; a small, specialized facility is sufficient. Mr. Van Vliet notes, “One Canadian company supplies most of the major diagnostic isotopes used in the world. These isotopes are produced at Canada’s Chalk River Laboratories in Ontario.”⁵

Military Applications

The susceptibility of nuclear facilities to sabotage, the potential for diversion of radioactive material for violent purposes and the number of countries that now have nuclear military capability have an impact on international security. Nuclear proliferation, in spite of agreements, is a concern; India’s move in 1974 to military applications, by surreptitious diversion of plutonium from a test reactor that Canada helped to build, is one example.

In Canada, nuclear fuel waste will continue to be stored at reactor sites as long as nuclear power production continues and for at least thirty years after production stops at a given site⁶. If nuclear energy production continues, removing aged nuclear fuel waste to disposal will not address the security hazard of the continuing requirement of on-reactor-site storage, and the continuous transport of nuclear fuel waste has its own set of security issues, including its susceptibility to radical groups.

⁴ The clean development mechanism is a UN moderated process whereby industrialize countries can gain credits toward their emission reduction targets by investing in development projects in developing countries.

⁵ See Van Vliet (2006).

⁶ All management options studied by NWMO were based on nuclear fuel waste aged 30 years in on-reactor-site storage.

Parallel to the point made by the Sustainable Development Commission to the United Kingdom (SDC 2006), if Canada meets its climate change commitment in part through nuclear power, then we cannot deny others the same technology, and other countries may have lower safety standards, increasing the risk of accidents, sabotage, and leakage of wastes; additionally, expanding use of nuclear power also increases the risk of nuclear proliferation.

Conclusion

Disposal of nuclear fuel waste is not a solution; it is a management option with its own set of on-going responsibilities and hazards for future generations. Mr. Van Vliet has noted, “It is well known in the nuclear power industry that solving the problem of what to do with the ‘waste’ would remove the main obstacle to the expansion of the nuclear power industry.”⁷ To promote the disposal option as a solution and thereby facilitate the production of more nuclear waste would not be morally responsible to the immediate or future generations.

The United Church of Canada has discussed the merits and demerits of each management option with NWMO within the full spectrum of considerations included in the NWMO assessment framework during the consultation process. Further, the UCC made recommendations on the assessment framework, including revision of the Adaptability objective and extensive expansion of NWMO Fairness objective (UCC April 2005). In addition, the United Church has given a detailed response to the recommendation by NWMO and placed those comments within the holistic context while respecting the limitations of the mandate of NWMO (UCC Nov. 2005).

The United Church of Canada has urged the federal and provincial governments

- to initiate a federal and provincial government process of open public debate on Canada’s energy policy and the place of nuclear power in Canada’s future energy mix as an initial step in addressing nuclear waste management;
- to require that nuclear fuel waste be considered within the context of the process that produces it, acknowledging all the other wastes and problems, and the full costs;
- to acknowledge that none of the options under consideration are capable of solving the problem of nuclear wastes’ long-term hazards and that the recommendation from NWMO is a plan by which a strategy for the longer-term management might be developed;
- to ensure that the NWMO study and recommendation is not used to promote nuclear power expansion;
- to require that the recommendation coming from the Minister under the *Nuclear Fuel Waste Act* be formally reviewed by Health Canada and Environment Canada and be put before Parliament for open debate;
- to establish a mechanism whereby the public and workers in nuclear-related

⁷ See Van Vliet (2005).

industries have input into the setting of regulations with respect to acceptable risk from ionizing radiation.

Further, the United Church has urged the government to amend the *Nuclear Fuel Waste Act* of 2002 to establish the waste management organization at arm's length from the industry with a broadly representative Board of Directors, funded by the waste producers; to change the Minister named in the act from the Minister of Natural Resources to the Minister of the Environment to avoid conflict of interest; and to require meaningful participation of broad civil society throughout this decision-making process on a matter of national policy (UCC Nov.12, 2005).

The United Church of Canada policy affirms the appropriateness of responding to the global warming trend by using energy conservation, energy efficiency and development of renewable alternatives as the primary strategy for reducing fossil fuel emissions rather than expanding nuclear power production. Trading greenhouse gas emissions for nuclear power wastes and proliferation risks has been rejected by the United Nations.

The United Church of Canada is working closely with the people from the many professional fields, faith communities and other groups, respectful of the past, caring for the present and mindful for the future.

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