

Comments on Draft policy for Radioactive Waste Management and Decommissioning

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I decided to comment on the Draft policy for Radioactive Waste Management and Decommissioning after receiving a letter that The Council of Canadians urged me to sign. The APPENDIX is a copy of the letter and I am sure that you have received thousands of signed copies of this letter. Anti-nuclear groups like The Council of Canadians have some concerns that need to be addressed, but they also have preconceived opinions that prevent them from being objective. In the discussion below recommendations by The Council of Canadians are underlined and followed by my comments.

1. Establish a truly independent regulatory agency. This suggestion has some merit. There may be more acceptance of radioactive waste disposal programs if the regulatory agency is more independent and is open to suggestions from groups that feel uneasy about nuclear power. Their comment “Canada has produced massive amounts of dangerously radioactive waste” Is misleading because the volume is less than other wastes which are equally dangerous and much more difficult to detect.

2. Radioactive waste requires perpetual care and monitoring and should not be abandoned. The most responsible way of disposing of radioactive waste is to put it in an enclosure that to the best of current knowledge will not leak excessively. The area around the site should be monitored with the best non-invasive methods available, but there is no way that perpetual care and monitoring can be guaranteed. Any boreholes for monitoring need to be far enough away from the enclosure that they do not affect its reliability.

3. Government and industry must be open and transparent in the management of radioactive waste and its transportation. This suggestion has some merit, but I disagree with any implication that government and industry have failed badly in this area.

4. Indigenous peoples and non-Indigenous Canadians have a right to access information, to engage in decision-making, and to know the risks. I fully agree with consulting stakeholders to reach a consensus when possible. However, large quantities of radioactive wastes have been stored for too long in locations that are not suitable for permanent storage. The technology for safe permanent storage has been developed and permanent facilities must be built without undue delay. I hope that the concerns of stakeholders can be addressed to their satisfaction, but narrow-minded special interest groups must not be permitted to delay projects that are for the common good.

5. The policy must explicitly forbid importation of radioactive waste from other countries, radioactive waste reprocessing, and plutonium extraction. I disagree with these restrictions. Ideally every country should dispose of their own radioactive waste, but there could be cases where Canada is in a better position to provide this service. There is considerable energy that can be obtained through waste reprocessing and plutonium extraction and we need to be open minded on this issue. The design of spent fuel storage facilities can take future retrieval for reprocessing into consideration, but the sealed boundary must not be compromised in any way to make retrieval easy.

6. The policy should recognize that Canada’s nuclear industry has created an intractable radioactive waste problem, that nuclear energy is not sustainable, and that it is not a viable solution to solve climate change. Many experts recognize that nuclear power has an important role to play in addressing climate change. Renewable energy solutions are not as perfect as The Council of Canadians would like us to believe. Solar panels contain rare minerals mined in the Congo and elsewhere where the workers have

few rights. Solar panels also contain lead which is a hazardous substance. The only major supplier is China. Disposal or recycle methods at end of life need more development. Large scale solar and wind require large scale energy storage which is not practical with present battery technology and the availability of materials to build batteries. Solar farms are being built on land suitable for agriculture and no thought seems to be given to the amount of carbon that could be captured if trees were planted on the land instead of solar panels.

I worked for Atomic Energy of Canada Limited for 39 years as an instrumentation engineer. During that time, I designed and specified instrumentation for materials experiments, for experiments related to nuclear safety code verification, and for monitoring ground water levels for experiments related to studying underground disposal of radioactive waste. I spent the last four years of my career on attachment to Ontario Power Generation at Pickering Nuclear Generation Station where I was on the team that restored Units 1 and 4 to service. As a support person, I was not directly involved with the design of reactors or waste management systems. I worked closely with people who were, and in my opinion, they did their jobs with competence and integrity. I am confident that the Draft policy for Radioactive Waste Management and Decommissioning will serve Canada well if it is adopted.

APPENDIX: LETTER THAT COUNCIL OF CANADIANS URGED ME TO SIGN

Comment on the Draft policy for Radioactive Waste Management and Decommissioning:

Canada has produced massive amounts of dangerously radioactive waste without effective technology or plans to prevent this waste from causing harm for the hundreds of thousands of years that it will remain hazardous. The new federal draft policy on Radioactive Waste Management and Decommissioning fails to provide effective guidance to ensure that our radioactive waste will be responsibly managed. The draft policy does not even describe the enormity and complexity of this challenge. We must not compound the errors of the past by allowing this accumulated waste to be abandoned or disposed of in such a way that it will impact future generations.

I recommend changes to the policy to reflect the following:

1. Establish a truly independent regulatory agency, arms-length from government and industry, to oversee radioactive waste management, decommissioning, licensing applications, and public engagement for the common good.

The Canadian Nuclear Safety Commission, (CNSC) is widely regarded as a “captured regulator” that lacks the independence necessary to hold the nuclear industry accountable. The CNSC has never refused to grant a license and has even secretly lobbied on behalf of the industry it is charged with regulating. The CNSC reports to the Ministry of Natural Resources, which actively supports and promotes the nuclear industry. This is a clear conflict of interest that must be rectified.

The draft policy recommends continuing the current practice of letting the nuclear industry decide how it manages its waste through the opaque and unaccountable Nuclear Waste Management Organization (NWMO). The polluter must not be allowed to decide waste management practices based on cost and convenience. The NWMO has long been criticized for its lack of transparency and questionable tactics in attempting to find “willing host communities” to take its radioactive waste.

2. Radioactive waste requires perpetual care and monitoring and should not be abandoned.

The draft policy largely ignores the fact that most nuclear waste remains a deadly threat for inconceivably long periods of time. The language on perpetual care and monitoring is extremely weak in the draft policy. It fails to clearly define what is required to avoid false solutions that could result in the effective abandonment of radioactive waste. Burying spent fuel and other highly radioactive waste underground is not an acceptable solution “in perpetuity.” Radioactive waste must be stored in a safe and accessible form, documented and continually monitored to allow for intervention when containment starts to fail or when better technology becomes available.

The policy must also give clear guidance regarding the significant and ongoing health and ecological problems of highly toxic and radioactive waste from mining and milling uranium.

3. Government and industry must be open and transparent in the management of radioactive waste and its transportation.

The draft policy must support the rights and concerns of communities subject to the risks of the transportation of vast quantities of highly radioactive waste. The current plan from the industry-led NWMO will send tens of thousands of high-level waste shipments through First Nations and settler communities on a daily basis for more than forty years. The policy must clearly address how these communities will be consulted, informed, and protected. And most importantly, it must commit to allowing communities to refuse to take the risks asked of them.

As a waste management proponent, NWMO must be subject to requirements by an independent, arms-length regulator who monitors NWMO for transparency, accountability, and honesty in its dealings with potentially impacted communities. The CNSC has not fulfilled that role to date.

4. Indigenous peoples and non-Indigenous Canadians have a right to access information, to engage in decision-making, and to know the risks.

Canada has a shameful track record of ignoring the rights of Indigenous peoples, and the nuclear industry is no better. Throughout Canada’s history of nuclear exploitation, the government and the industry have ignored, undermined, or outright deceived Indigenous Peoples. The policy must acknowledge this historical injustice and give specific and fulsome guidance for respecting the rights of Indigenous Peoples. Consent must be sought from the entire community including traditional leaders and elected Chiefs and Councils.

First Nations have reported that they have not had access to the information necessary to understand the complexities of the subject they are being asked to make a decision upon. We need an independent, arms-length, regulatory and oversight agency, mandated by a federal policy that ensures communities are consulted, informed, and protected. It must ensure that communities have the capacity to take part in technical reviews, are given fulsome information, and ultimately allow refusal to accept the waste, including its through-transport.

5. The policy must explicitly forbid importation of radioactive waste from other countries, radioactive waste reprocessing, and plutonium extraction.

The draft policy contains contradictory statements regarding the import or repatriation of radioactive waste. There should be no import or repatriation of radioactive waste with no exceptions. Furthermore,

the draft policy allows for consideration of extraction of fissile material such as plutonium and nuclear waste reprocessing without offering any more guidance than “due consideration” and respect for regulation. There is no technology that allows the safe reprocessing of radioactive waste and there is no reason to consider this activity in the future. The policy should simply forbid the practice.

6. The policy should recognize that Canada’s nuclear industry has created an intractable radioactive waste problem, that nuclear energy is not sustainable, and that it is not a viable solution to solve climate change.

We must reduce fossil fuel use faster than the nuclear industry can expand. Nuclear energy is far more expensive than renewable energy solutions and much too slow to build. Current nuclear plants are operating under problematic regulatory approvals that have allowed many of them to continue operation for decades beyond their original operating lifetimes. They should be replaced as quickly as possible with the safe, proven, reliable, and cost-effective low-carbon alternatives that already exist.

The federal policy must reflect these truths.

Thank you.

Sincerely,