Canadian Environmental Law Association
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CELEBRATING 50 Years 1970 - 2020 OF ENVIRONMENTAL PROTECTION

The Honourable Seamus O'Regan
Minister of Natural Resources
House of Commons
Ottawa, Ontario K1A 0A6

Dear Minister O'Regan:

C/O
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May 31, 2021

Re: Radioactive Waste Policy Review 2020-21

Dear Minister O'Regan:

The Canadian Environmental Law Association appreciates the opportunity to provide submissions on Canada's long-overdue update of its radioactive waste policy. We make the following submissions for your consideration. The first portion of this letter provides six recommendations that are over-arching and not limited to one specific discussion paper or another. We also provide an Appendix including brief submissions that were compiled by Nuclear Waste Watch (of which we are a steering member) in response to the themes of each of the Discussion Papers; CELA endorses these submissions.

A. INDEPENDENCE

Public credibility and trust are foundationally dependant upon the independence of the oversight of nuclear matters in Canada. We do not have this independence at the moment. Currently, high-level radioactive waste (i.e. fuel waste) is the responsibility of the Nuclear Waste Management Organization, which is entirely a body composed of the current and former operators of nuclear waste plants. Other intermediate (but still very hazardous and long-lived) nuclear waste, as well as low and very low-level radioactive wastes are all dispersed and poorly controlled with the current absence of any overall Canadian radioactive waste policy. It would be publicly unacceptable to place oversight of these wastes in the hands of the nuclear industry as well.

RECOMMENDATION 1: Establish an INDEPENDENT agency, arms-length from the nuclear operators and arms-length from any government department, crown corporation or agency, whose mandate includes the use and promotion of nuclear energy, to oversee ALL nuclear and radioactive waste in Canada, including from mines and refineries, from the

legacy Canadian involvement in atomic weapons development, from power plants, from research reactors, from medical uses, and from any other source.

RECOMMENDATION 2: Separate the reporting relationship of the Canadian nuclear regulator, the CNSC, such that it reports to and through a separate Minister of the Crown than NRCan, and separately from the Minister/s responsible for any entities or Crown agencies that are responsible for promotion and utilization of nuclear power and related technologies.

B. NO ABANDONMENT

Too many of the current proposals and visions for radioactive waste in Canada envision the imminent or ultimate abandonment of radioactive wastes. The motivations include getting the liabilities "off the books" of the federal government, crown agencies, provincial utilities and private corporations. This speaks volumes about the perceptions of industry, reinforcing the fact that the vast proportion of the highest toxicity radioactive hazards will never disappear. No government agency, utility, private corporation or crown agency, regardless of their current enthusiasm for continued utilization and expansion of nuclear power has been willing to take on this liability on an un-ending basis. Accordingly, as a first principle, Canada must end the ongoing creation of new nuclear waste as it is un-needed, and an un-just burden on both the current generations who will bear the risk of its handling, storage and perhaps disposal, as well as future generations. In both cases, the risks far exceed the benefits to those communities.

In the meantime, Canada must adopt a principle of "no abandonment" of nuclear waste, and instead ensure that it is properly stored, overseen, stewarded, including periodic re-packaging or housing as required for safety, with knowledge transferred to future generations and adequate resources provided for its oversight and management over an indefinite and on-going time horizon.

Leaving nuclear waste in place as in the current "in situ" proposals do, presents an unacceptable risk to the environment, downstream communities and future generations. Similarly, pursuing ideas of irretrievable waste abandonment, as in the current deep geological repositories would result in the inability to deal more responsibly with the waste as new technologies are developed in the future, and leave future generations unable to remediate or prevent the consequences of breaches of containment, leaks to the surrounding environment, or other failures of the repository technology.

RECOMMENDATION 3: Canada must establish a foundational principle in its new nuclear waste policy that there be no permanent abandonment of nuclear or radioactive waste, including legacy wastes from mining and refining.

C. TRANSPARENCY, OPENNESS, TRACEABILITY AND ENGAGEMENT

The current and past approaches to adoption of new nuclear technology and its resulting waste have not been undertaken with appropriate transparency and engagement. The fact that nuclear power technology arose directly out of development of atomic weapons, and that its continued use presents extremely serious ongoing proliferation and security risks, means that there is a very

poor culture of engagement and transparency with the public and affected communities. The past approaches to imposing the risks on indigenous and other communities has been highly inequitable, and often tragic. This is true across the entire fuel chain from mining and processing through to operations and legacy wastes.

Many communities are continuing to live with unacceptable levels of risks from past activities; many of them have had to fight and continue to fight for proper inclusion in decision making, and full transparency of information such as levels of hazard from legacy wastes. The current approach of the nuclear waste industry is an approach of "faux" engagement, consisting of reassurance and half-truths instead of robust inclusion of communities in decision making. No better example exists than the current approach of the NWMO, whose hallmark is this type of community engagement, leaving a trail of divided communities from the past "learn-more programs," and refusing to clarify how community decisions such as "willingness" will be adjudicated as they search for a DGR. Recent media exposing the "dirty secret" of the enormous showering of resources on the potential host communities (communities falsely characterized as lacking other economic opportunities) is a case in point. Only enormous effort by community members has resulted in the disclosure of some of these tactics.

> **RECOMMENDATION 4**: Canada's new radioactive waste policy must emphasize real engagement, with the potential to affect outcomes on the part of all communities, and particularly indigenous communities whose constitutionally protected rights are at stake. That policy must also incorporate full transparency as one of the most foundational principles of the policy, including historic information, contamination levels, assessments of risk, and locations of radioactive hazard such as legacy wastes. It must also add a requirement that communities who find themselves dealing with radioactive waste hazard, including legacy hazards from old mining and processing activities will be entitled to full remediation and/or compensation for the impacts. These costs must be internalized and provided for in advance. Engagement must include communities affected by current and proposed transportation methods and routes, and transparency must include full disclosure to these communities of the risks and the required emergency preparation.

D. PROHIBIT IMPORTING OF NUCLEAR WASTE

A major threat arising from the government of Canada's move to a "Go-Co" (government-owned / contractor operated) model for much of its intermediate and low radioactive waste legacies is that the ownership structures include corporations with vested interests in privatizing and profiting from all aspects of radioactive waste handling and management, at least cost and maximum revenue. These include connections to non-Canadian corporate groups and individuals whose best interests are manifestly not about the protection of current and future generations of Canadians. To expedite these interests, a trade in nuclear waste exporting and importing is envisioned. Canada is perceived as an industry "friendly" jurisdiction that will allow for these activities with few barriers. Canada must not emulate those countries who promise to "take back" all of the waste in order to sell their nuclear technologies. This approach is perpetuating a highly hazardous industry around the world with little justification for current Canadians, and zero justification for future generations.

RECOMMENDATION 5: Canada must include a prohibition on importing nuclear waste in its radioactive waste policy.

E. PROHIBIT RE-PROCESSING OF NUCLEAR FUEL WASTE

In the guise of pursuing "new" nuclear technologies such as SMRs, Canada is walking right into a non-proliferation nightmare. It has been a longstanding approach of Canada to prohibit reprocessing of nuclear waste. This must be reaffirmed and embedded as a foundational principle in Canada's new nuclear waste policy. Allowing for reprocessing (or pyro-processing) of nuclear wastes opens up risks of diversion for weapons purposes, malfeasance, terrorism, and creates highly hazardous wastes that are even harder to deal with than CANDU wastes. CELA is concerned that the government of Canada is allowing for and expediting these approaches without understanding the risks being created, no doubt due to a loss of capacity and knowledge in the senior ranks of the federal government. This was expedited with the decision to privatize most of the operations of the AECL, and resulting loss of expertise, and with the ongoing retirements of senior workers in government and nuclear industries who might have provided the necessary perspective to provide a "check" on these current very risky proposals that Canada so far is explicitly promoting.

RECOMMENDATION 6: Canada must include in its new nuclear waste policy a prohibition on the reprocessing (or pyro-processing) of nuclear waste.

Thank you for the opportunity to provide these submissions. We would be happy to answer any questions or meet with you further in respect of the foregoing.

Yours very truly

T A McClenaghan

CANADIAN ENVIRONMENTAL LAW ASSOCIATION
Per
Theresa A. McClenaghan

APPENDIX

Summary of specific points compiled by Nuclear Waste Watch, and endorsed by the Canadian Environmental Law Association in response to the four Discussion Papers:

Waste Storage:

- Design, operations and monitoring for fuel waste storage systems should be open and transparent, and include public access to information

- Storage systems should be designed to minimize risk and maximize protection of human health and the environment
- Waste storage systems should be passively safe, should be "hardened" against extreme weather and malevolent acts, and should be dispersed across the site, at the point of generation

Decommissioning:

- Decommissioning approaches must at minimum conform to international safety standards.
- Decommissioning planning and implementation should be information based, including full information about the condition of the site (such as contamination of soil, ground or surface water) and a full inventory of radioactive wastes (on site and decommissioning wastes
- Information must be publicly available and peer reviewed, including by the public and Indigenous peoples
- All decommissioning projects must include a comprehensive strategy for the transmission of information and knowledge to future generations
- End state objectives should be based on protection of ecological and human health and the decommissioning work must show that the site has been fully remediated and is now fully safe

Waste Disposal:

- The notion of "disposal" should be replaced by an approach of long-term care and stewardship
- Independence and transparency should be integrated throughout the radioactive waste policy
- Agencies responsible for radioactive waste research and oversight should be independent of the nuclear industry
- Canada's nuclear regulator should report to parliament through a separate Minister than those who use and promote use of nuclear power
- Indigenous peoples and the public should be engaged in policy and project development and review, with funded access to legal and technical advisors and all relevant documentation

Waste Minimization:

- Prohibition on reprocessing irradiated fuel should continue
- The extraction of plutonium must be explicitly prohibited
- Practice of "free release" of radioactive materials should be discontinued
- Detailed tracking of all radioactive materials, including (very) low level radioactive wastes
- Waste characterizations and inventories must be detailed, current, and peer / public reviewed and accessible


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