Preliminary response to Canada's Radioactive Waste Policy Review.

[redacted] April 2021.

I have been part of 2 roundtable discussions that have occurred in co-operation with Nuclear Waste Watch.

The last session on March 24 was particularly helpful, as ideas about the starting point for building a new nuclear waste policy were offered.

My main reason for being involved in these discussions right now is my great concern about the way nuclear waste problems in the Chalk River area are getting worse and worse.

Further, the more I learn about how waste issues in places like Port Hope have been dealt with, and are being dealt with, the more alarmed I have become.

I was also alarmed when I realized, due to an Access to Information request by Greenpeace in 2018, that staff at the CNSC had briefed the then Chair of the Commission, Michael Binder, about how to lobby Departmental staff working on developing regulations for the new Impact Assessment Act. The purpose of this successful effort was to assure that those regulations would preclude automatic assessment of SMRs and SMR waste under the new Act.[see: September 28, 2018 Canadian Nuclear Safety Commission P.O. Box 1046, Station B 280 Slater Street Ottawa, Ontario K1P 5S9 Via: cnsc.consultation.ccsn@canada.ca. Re. Greenpeace comments on REGDOC-1.1.5: Licence Application Guide: Small Modular Reactor Facilities]

A short while ago Dr. Binder became an official Advisor to Ultra-Safe Nuclear Power. The corporation explained it this way in Dec 2020:

"Another milestone for USNC-Power

Just last month, USNC-Power announced an important organizational milestone: the signing of a Project Host Agreement for the company's initial deployment site in Canada. Earlier this year, USNC-Power and Ontario Power Generation (OPG) formed a joint venture, referred to as Global First Power (GFP), to implement USNC's proprietary MMR™ at Atomic Energy of Canada Limited's (AECL's) Chalk River site, managed by Canadian Nuclear Laboratories' (CNL). The

commercial demonstration project is the only project in the third stage of CNL's four-stage process to site an SMR at an AECL site. The signing of the Project Host Agreement cements the company's three-year competitive advantage as it moves toward a fully operational reactor by 2026. Given the progress to date, creation of a Canadian advisory board was necessary to guide the strategic and responsible creation of this ground-breaking energy solution with global potential.

Introducing USNC-Power advisory board

USNC-Power advisory board members are leaders in their respective fields with deep knowledge and understanding of the mining industry, nuclear energy and utility sectors as well as Indigenous communities, businesses, and Canadian government organizations. USNC-Power is proud to introduce its five strategic advisors:

Dr. Michael Binder

A former Canadian Nuclear Safety Commission (CNSC) President and CEO, Dr. Binder was responsible for overseeing the use of nuclear energy and materials in Canada. He led and managed the commission to protect the health, safety, and security of Canadians and the environment, and adherence to Canada's commitments on the peaceful use of nuclear energy. Dr. Binder has held numerous ministry posts ranging from the Department of Communications and Industry Canada, Information Technologies and Telecommunications, to the Office of the Comptroller General of Canada, Treasury Board."

It's apparently not enough that Chalk River has enormous amounts of "legacy" federal nuclear wastes on site. Now the CNSC is considering adding to those wastes by licensing development of one SMR (or maybe more) – perhaps the Global First Power model?

And to add to the increasing amounts of federal nuclear waste piling up at Chalk River is the truckloads of Low and Intermediate Level waste that will be coming to the Chalk River site from CNL's recently-modified CNSC license to clean up the site of the closed federal Douglas Point Reactor near Lake Huron.

In addition, 20 kms up the Ottawa River another CNL waste project is currently under review by the CNSC – the "entombment" of the closed federal NPD reactor at Rolphton. This proposal was criticized by the last report of the IAEA on Canadian waste projects in 2019. The IAEA says "entombment" of a reactor should occur only if there is no alternative, and suggests that might be the case if a reactor suffered an accident.

In the course of learning about the waste situation at Chalk River and Port Hope I've also read a fair amount of international material about nuclear waste planning, methods, development, and failure. I understand that once radiological waste is generated there is no easy way to deal with it.

In fact, I've come to see the term "disposal" as misleading. It suggests that somehow we can get rid of nuclear waste. I think that is inappropriate because the most dangerous of that waste is going to remain dangerous for a very long time – far longer than we can plan to reasonably expect it to remain safely stored once and for all.

For that reason, I agree with several of the approaches that were suggested during the second Roundtable:

. the first principle should be one that is outlined in the April 2012 Report of the International Commission on Radioactive Protection – that individuals and populations in the future should be afforded at least the same level of protection as the current generation. Unfortunately in Canada this is not a very high bar.

. because no method of assuring permanent protection from ionizing waste can be guaranteed, the most dangerous waste must be retrievable so it can be re-packaged and perhaps even re-located if that's required in future.

. the public should be told the truth and so should Indigenous people: doing the best job of securing nuclear waste and protecting both people and the environment from the dangers of nuclear waste has proven very difficult and there have been no great successes either in this country or any other.

. Unless and until there are dependable, very-long-term methods for dealing with High Level Waste it should be stored in high-quality cooling and storage containers on the sites where it has been generated. This will make it easier to maintain the expertise of staff responsible for monitoring and dealing with waste

storage problems and may also avoid the serious hazards of removing such waste and transporting it to an alternative storage site.

. Monitoring and record-keeping must be considered a critical component of waste storage. That means that initial categorization of waste types, amounts and locations becomes a first and continuing imperative.

. Proposals for waste storage such as the proposed NSDF at Chalk River have to accord realistically with tests of site-suitability, historic and expected vulnerability to forest fires, severe flooding, tornadoes and serious earthquakes.

. In the case of the Chalk River, the unholy mix of previous forced and hasty site-remediation following serious accidents at 2 federal reactors, the leftovers of returned High Level Waste, the steady creation and import of High Level commercial waste, and the proposed development of one or more waste-producing research SMRs at the site is nothing short of irresponsible. The Chalk River site is both a testament to past inadequate planning and inadequate execution of waste generation and waste “disposal”, and a seeming determination to continue that pattern.

. There is a built–in problem associated with nuclear waste production - whether by power generation, production of fuels for reactors, university research, medical treatment, or production of commercial products. All the waste that is generated requires trained, experienced personnel to secure and categorize waste, assure equipment is in good condition, monitor operations of waste storage, re-mediate problems and deal effectively with emergencies. Unfortunately the easiest and cheapest way to maintain high-quality personnel is to keep adding to developments that produce additional nuclear waste.

. Given the record of caring properly for nuclear waste, both here and internationally, producing more waste is clearly what we should not be doing. In particular we should not be developing SMRs that require specialty fuels inherently more susceptible to misuse for weapons or attacks. Canada has chosen not to arm itself with nuclear weapons. Canada should not become a source of weapons-grade material for use in nuclear weapons, terror or sabotage.

. Currently the Canadian Nuclear Safety Commission is not providing the high standard of independence from the nuclear industry that would satisfy the expectations of the Canadian public. It reports to Parliament through the Department of Natural Resources, which is focussed more on resource developments than on the environment and life. Instead it should be reporting to Parliament through the Department of the Environment and Climate Change, the Department of Health and departments responsible for relations with, and services to, Indigenous peoples.

I will not belabour the practices and decisions of the CNSC which have led me to consider it a faulty institution for regulating nuclear projects. Let me just mention uranium mining waste projects, Chalk River and the support of OPG's re-start of the Pickering A nuclear reactor with questions remaining about the availability of a second emergency shutdown system, www.ccnr.org/CNSC_CCNR_Supp_2013.pdf and questions remaining about the state of the 4 Pickering B reactors with their aged fuel pressure tubing. *https://www.theglobeandmail.com/canada/article-canadas-nuclear-regulator-overlooked-dubious-data-when-renewing/*

To me it seems that the CNSC favours money-saving benefits to the nuclear industry rather than requiring the best for nuclear safety, the best for the environment and the best for population health.

Canada should have nuclear oversight and regulations that prioritize

. safety , long-term

.the environment, long-term,

. human health, long-term, and

.respect for the rights of Indigenous peoples, long-term.

Those should be the priorities for regulating activities that produce nuclear waste, and for activities to manage nuclear waste.

In addition, allowing the nuclear industry to attempt to "buy support" from communities, to induce support for nuclear waste proposals close to those communities, should be halted. The nuclear industry, left to its own devices, is attempting bribery of communities that are usually small and often economically-challenged. This is not in tune with social justice. The practice is dishonourable.

Which raises the question of how to determine community readiness for nuclear initiatives – either ones that produce nuclear waste, or ones that propose to deal with nuclear waste.

The first Community that has to approve a nuclear initiative must be the Indigenous community, or communities, whose land titles are affected. The next consideration must be given to other communities that are, or could become, directly affected – for example, the community of Ottawa in the case of nuclear initiatives on Chalk River Lands. In neither case do I consider it legitimate for proponents of nuclear initiatives to engage in providing monetary or other benefits for individuals or organizations in affected communities. "Community support" should be neither forced nor purchased.

Beyond that, for community support to be considered "compelling" it should be clearly more than a simple majority.

I'd like now to turn to a point which has not generated much comment in the Roundtable discussions so far: the "Strategy" role of the NWMO in the current review of Canada's nuclear waste policy. First, for most people, me included, the line between "principles" and "strategies" tends to blur. Further, if I were beginning to inform myself for the first time about the Policy Review and I happened to take myself to the link, radwasteplanning.ca ,I would be presented with the following:

Share your thoughts on the best options to ensure all of Canada's radioactive waste is managed safely, responsibly, and effectively long after we're gone

Canada is safely managing its radioactive waste today and already has several long-term plans and projects in place. However, there are some gaps in addressing certain streams, specifically low-level and intermediate-level radioactive waste, that need an integrated, long-term strategy. The Nuclear Waste Management Organization (NWMO) has been asked by the Minister of Natural Resources Canada to lead the development of this strategy by engaging with Canadians and Indigenous peoples.

We are planning a series of interactive, accessible and collaborative engagements that welcome a diversity of voices. Your thoughts and perspective play an important role in identifying the best approach to ensure all of Canada's radioactive waste is managed safely, responsibly and effectively long after we're gone.

Join us as we explore what's most important to Canadians and Indigenous peoples on this topic and help us shape Canada's strategy.

What Would You Like to Discuss?

To help inform our engagement plans, please tell us what you would like to discuss

Learn More

Frequently asked questions and answers

Canadian Radioactive Waste Summit

Register today

Indigenous Relations

We are committed to long-lasting relationships with Indigenous peoples built upon communication, transparency, respect and reconciliation. We will engage with Indigenous peoples on the Integrated Strategy on Radioactive Waste (ISRW), and ensure all participants are provided the opportunity to provide input and advice.

The whole tone of this information conveys the impression that this is the site of the organization responsible for Government's official Review of Canada's Nuclear Waste Policy and that to involve yourself in that Review you should register on this site.

This is not only confusing, it is downright misleading. It is also the direct result of a Review which authorizes the producers of the problem to guide the steps to be taken to deal with the problem. The way in which nuclear waste producers are stretching their role in the Review is inadmissible. Their "strategic" role also ignores the fact that it benefits the producers financially to find the cheapest way to define Canada's path to deal with the problem.

I think the role of the producers of Canadian nuclear waste in the current Review of Canada's Policy should be immediately re-thought, narrowed and redefined.

I look forward to the remaining "Roundtable" discussions.