Comments on NWMO Initial Project Scope: APM-REP-05000-0210-R000: Initial Project Description: Deep Geological Repository (DGR) for Canada's Used Nuclear Fuel: Project, December 2025

By John Jackson, Coordinator, Citizens' Network on Waste Management, February 1, 2026

*The **Citizens' Network on Waste Management (CNWM)** is a network of citizens' groups throughout Ontario working on municipal waste, radioactive waste, and hazardous waste issues since 1981. We have been involved In radioactive waste issues since the Seaborn Panel in the 1990's; were a funded participant in the hearings for the proposed DGR for intermediate-level radioactive wastes (2012-2015); have been involved in the NWMO's process beginning at the consultation meetings they held in Toronto through the siting process; and led the application for the past ten years to have radionuclides designated as Chemicals of Mutual Concern under the Great Lakes Watet Quality Agreement.*

Limitations in the NWMO Project Scope:

1) Length of Project:

The Initial Project Scope states that the Project "is expected to span approximately 160 years, including site preparation, construction, operation (about 50 years), decommissioning and closure, and post-closure monitoring" [p. v]. On the same page the Initial Project Scope states that "used nuclear fuel remains radioactive for a very long time and therefore requires careful, permanent management to avoid placing a burden on future generations." The phrase here "requires careful, permanent management" is extremely important. Here, the NWMO is saying that the Project is not longer than 160 years. After 160 years, the project is abandoned. In the case of radionuclides from used nuclear fuel bundles, the wastes are extremely hazardous for hundreds of thousands of years; this means the bundles should be separated from the environment for this long. This is far beyond the 160 years of this Project. This is based on the foolhardy assumption that government regulations and decision-making is strong enough, and precautionary enough to not allow for anything unexpected to occur after those 160 years. There is no basis to justify this.

Recommendation 1: The Initial Project span should be extended indefinitely including provision for on-going monitoring and having a ready-at-hand agency responsible for and ready to act, and plans for addressing what might go wrong.

2) Off-site Transportation:

The Initial Project Scope document excludes transportation of used fuel outside of the Project property from the Project discussion.

A fundamental part of the purpose of this Project is to take used nuclear fuel bundles from nuclear power plants all the way from New Brunswick, Quebec, and several sites in southern Ontario to the proposed disposal DGR in western Ontario, almost half the way across the continent.

A backgrounder by Northwatch states that the NWMO plan "will involve 2-3 shipments per day for more than 50 years, with each truck hauling 350 tonnes of radioactive waste per trip. Over 90% of the shipments will come from southern Ontario averaging 1,700 km per trip, with most of those kilometres travelled on the poorly maintained and mostly two-lane roads of northeastern and northwestern Ontario."

The NWMO Project has no purpose for existing if this transportation doesn't occur. The NWMO clearly understands this because it has spent substantial time and money trying to determine the best way to make cannisters for the fuel bundles and other protective measures. It also has spent considerable time look at alternative transportation methods.

The Initial Project Scope says that this does not need to be discussed as part of the Project "as this is regulated separately under CNSC certification and uses existing transportation infrastructure" [vii]. It is not satisfactory to wait until the CNSC certification stage because there are no proven canisters, etc. to model on. Also, they say that they will use "existing transportation infrastructure." Is the existing transportation infrastructure adequate? There certainly are plenty of serious questions raised by people who currently use that infrastructure. The Project cannot be considered "safe" unless the method for getting the nuclear fuel bundles to the facility is safe. If there are potential problems with the transportation system, it may be necessary to reconsider the appropriateness of the entire NWMO system and look for alternative methods.

Recommendation 2:

The off-site transportation system and methods should be considered as part of the Project.

3) Expansion of Capacity beyond 5.9 million bundles of fuel:

The Initial Project Scope says that expansion of capacity of the Project "would require approval from host communities and be approved by applicable regulators, including CNSC as the lifecycle regulator for the Project" [vii].

It is essential to discuss how "approval from host communities" will be determined. The failure of the NWMO would determine whether a community approved the current project was a major source of confusion, frustration, and community conflict during the NWMO process for determining whether they had a willing host.

This should be discussed during the hearing process. Questions such as who decides willingness (e.g., a council, all the residents in the community, neighbours; people living along transportation routes and/or downstream); what percentage approval is considered "acceptance" (50.1%, 66%, 80? etc.,)?

Recommendation 3:

The meaning of determining what "approval" means and the methods for determining approval if NWMO decide at some point in the future to expand the capacity of the facility should be discussed during this hearing for this Project.

4) Approval Standards:

The first paragraph in the Safety and Environmental Protection of the Initial Project Scope reads:

"Protecting people and the environment is the foundation of this Project. The purpose of the Project is to **ensure** used nuclear fuel is safely managed over the long term so that it does **not pose a risk** to human health or the environment" [p. viii, bolding added].

This powerful statement of intent is the one against which the actions in terms of what is acceptable must be judged. Main among these are "ensure" and "not pose a risk to human health or the environment."

Unfortunately, the following paragraphs go on to weaken the intent of this first paragraph. The following are a couple of prime examples:

- Using As Low As Reasonably Achievable (ALARA standard) [p. ix]: "reasonably achievable" substantially weakens the protections because it isn't basing the decision on whether it is technically possible to make it stronger but on financial factors which may mean not using the most protective measures.
- Adequacy of regulations: "Under the NSCA, the purpose of regulation is to: limit, **to a reasonable level**, the risks to national security, health, safety, and the environment associated with the use of nuclear energy and substances, consistent with Canada's international obligations" [p. viii underlining added]. The use of "to a

reasonable level" in this is dramatically contrary to the goal that NWMO stated in the paragraph we began item 4 with.

- For something as potentially hazardous as used nuclear fuel bundles and which last for hundreds of thousands of years, the only "reasonable level" to protect human health and the environment is no discharge, exposure, etc.

Recommendation 4)

Discussions during the hearing should include discussion of the adequacy of existing regulations to take care of the long-term future.

The governments do not address the potential for unexpected or catastrophic events involving radionuclides. They work on the assumption that their regulatory systems and their standards are so good that they will even cover the unexpected.

As Barry Boyer , Professor of Law Emeritus and former Dean of SUNY Buffalo Law School, states, "it is shortsighted and self-defeating to focus only on current routine releases of radionuclides while ignoring the risks of plausible but low probability catastrophic releases" [Barry Boyer, "Unexpected and Catastrophic Events", September, 2025].

The adequacy of the current regulations to protect the environment now should not be assumed and requires discussion at the hearing. NWOM says that it will update the project as regulations, standards change in the future [Initial Project Scope, x].

The catch with learning during future operations at home and elsewhere in the world is that the ability to make anything but minor changes is not possible in a facility as massive and inaccessible as a DGR after it has waste in it.

Summary: Overall Recommendation

1) We urge you to require that the scoped issues raised above, as well as others that we did not include here, be corrected before the NWMO goes on to the next stage
2) We urge you to conduct a full impact assessment and public hearing. This Project is unprecedented and, therefore, unproven in the world. The impacts of this project can be extremely devastating to the environment and to all life because of the nature of radionuclides in fuel bundles and because these substances are extremely long-lived – hundreds of thousands of years.

Therefore, the public hearing should:

- Have a neutral panel
- Consider alternatives in detail

- Allow adequate time for participants to prepare for each input stage and for the hearings
- Allow adequate time for the participants to fully question and challenge the proponent and its witnesses
- Provide substantial financial support to intervenors (participants) that is adequate for the serious questioning that is necessary for a project as risky as this one to be seriously vetted.

We must remember that thorough intervention from the public is essential to achieve the goals of an environmental impact assessment and hearing process. This public process, if conducted thoroughly enough, often brings out information from the proponent and their consultants that would not have come out before, and also the intervenors (participants) often bring forward information that may not have been received by the hearing panel and decision-makers otherwise. This process can lead to much better decisions by way of changes to the proposed project, or by the decision-makers choosing to reject the proposal.