



Canadian Nuclear Society
Société Nucléaire Canadienne

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Doddy Kastanya
President,

BY Email: eric.melillo@parl.gc.ca

Dear Mr. Melillo,

Commentary on Template Letters Against the Deep Geological Repository Project

I have been made aware of the fact that Lynn Brickman recently posted on social media, a template letter for people to send to you about the Deep Geological Repository (DGR) project. It is likely that you may have started receiving copies of the letter from your constituents. I have attached a copy of the template for your convenience.

The Canadian Nuclear Society (CNS) is an independent, learned, organization comprised of individuals with an interest in nuclear issues. We do not represent the Nuclear Waste Management Organization (NWMO), cannot speak for the NWMO nor do we, as an organization, have any privileged insight into their activities. However, we are informed observers of what they do and can speak to the science and engineering involved in their project.

While I feel confident that you will be better informed about the issues than the author of this template, I would like to offer you the help of our organization in answering any questions that you might have and to draw your attention to the errors and deceptions in the template letter.

In the following commentary on the template letter, I refer to its numbered points.

1. The NWMO's Unscrupulous and Psychological Tactics.

The accusations of unscrupulous behavior and bribery are not supported by any evidence, we suspect that this is because there is none. So far as the CNS can see the NWMO's activities have been completely transparent and above board and have not included anything that could be considered to be unscrupulous. Bribery is illegal and if any were occurring there would be a police investigation taking place. No such police investigation has been announced. Bribery would also be against government codes of conduct which apply to the NWMO and against which they will be routinely audited.

The behaviors being referred to appear to be a necessary part of enabling a community to become informed. Investigating and understanding a complex project of this kind is time



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consuming and it would be totally inappropriate to expect a community to fund this activity itself.

The suggestion that a virtual tour would be as informative as a site visit is quite obviously a nonsense as it would deny the people involved the opportunity to affirm what they have been told by seeing it with their own eyes. This is a required part of any effective due diligence. It would also deny them the very real opportunity to meet with the local community and learn first-hand about how they feel about the project.

The “psychological tactics” referred to appear, as far as we can tell, to extend as far as the NWMO letting the communities know what it might be like to have a good corporate neighbor in their midst. This could well be a key component of the communities’ decision on whether to proceed or not and so it would appear to be wholly appropriate for NWMO to do this.

2. No Full Disclosure

This paragraph is centered around linguistic deception. It is true that there has been no environmental impact assessment yet but that is because an environmental impact assessment is submitted when a project is being formally reviewed. The NWMO are not at that stage yet and so could not have submitted an “environmental impact assessment” even if they were ready to do so. The NWMO is presently building up the body of data required to undertake a full environmental impact assessment and makes all its studies available (<https://www.nwmo.ca/Documents-and-reports>). These reports include all the consequences negative and positive.

So far as we can tell (and many of our members follow the social media quite closely), neither NWMO nor any of its staff members have ever shamed anyone who speaks about the risks on social media. Some CNS members, along with other scientists and engineers, have done this, largely because the comments being made were embarrassingly misleading and needed to be corrected. The CNS Communications Director did a fact check of a speech made in the region which clearly shows how misinformation is being used to deceive people. This fact check can be found here <https://www.cns-snc.ca/core-business/fact-checking-gordon-edwards/>.

The NWMO appears to us to be assiduous in posting their material. If they did not do so they would risk being found to have failed to fully inform the community and, as that is a prerequisite of the project proceeding, they would be guaranteeing their own failure.



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The fact that some nuclear scientists do not believe a DGR is necessary is not a secret, as is implied in the template, and never has been. It has been hotly debated, in public, for decades. In the end Canadians decided that a DGR is the way they wanted to proceed, a decision supported by the international community including the International Atomic Energy Agency. This approach has been taken with full consideration of all the other options, including reprocessing. If you wish, we could provide details on why we believe the DGR to be the right decision and a decision that is in no way in conflict with the opportunity to reuse fuel in the future, should that become economically possible.

3. Isolation for Hundreds of Thousands of Years

The idea that the used fuel must be isolated for hundreds of thousands of years is a fallacy, albeit a commonly believed one. It is rooted in the fact that radioactive materials become less radioactive over time, and it has been reinforced by the fact that it was necessary to choose some point in the future at which to do an assessment of whether or not the proposed approach to disposal will work. In fact, after a relatively short period of time, the external radiation ceases to be of any concern, and the used fuel could only cause harm if ingested. In other words, it is the same as any other toxic material, many of which remain toxic forever. Using the logic implied by the template all these materials should be isolated from the environment forever, instead they are typically thrown into landfills. The issue is more nuanced than that.

The intent of the DGR isn't to isolate something for hundreds of thousands of years, while its radioactivity decays, it is to make sure that the concentration of these materials, almost all of which were dug out of the ground in the first place, never ever give rise to environmental harm. It is a standard that almost no other industry aspires to. Unfortunately, and ironically, by setting this high standard for itself the nuclear industry has attracted attention to the issue and this has fueled the misunderstanding.

The idea that there will be no way to monitor the integrity is based on an application of lived experience to a circumstance where lived experience simply does not apply. Yes, on the surface, where things happen quickly, we have to monitor integrity. But deep underground, where things happen very very very very slowly, we can accept that over very long periods of time integrity may be lost and nature can be relied on to provide all the containment that is needed. It is not that there is no reliable way to monitor the integrity, it is that there is no need to do so.



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To do harm, either to human life or the environment, significant quantities of material would need to not only escape but to make it to the biosphere. This means that the engineered integrity does not need to be maintained forever as if something does slowly diffuse out but stays deep underground, no harm is done. Similarly, if some ions do escape but only make it to the biosphere in a very dilute form, then no more harm is done than if it had come from a natural ore body and that is something that is taking place all over the place all of the time. It does no harm.

4. Effects on Communities on the Route

The NWMO has indeed said that they will only proceed in a place where they have an informed and willing community. Residents along the route are not in the community that will host the DGR and so are not included in that statement.

But the implication that the effect on those enroute communities is not being considered, as suggested in this template, is simply not true, they are. The fact is that the radiological aspect of the shipments will have so little impact on the lives of people on the route that it is barely worth mentioning <https://www.nwmo.ca/News/Carleton-Researchers-Complete-Transportation-Study-for-the-NWMO>. It should be remembered that presently the plan calls for someone to drive the truck carrying the used fuel, possibly throughout their entire working life, and it won't affect them, so why would it affect someone that very occasionally waves at one from a distance!

5. Effects on Tourism

There is absolutely no evidence that suggests that tourism will be adversely affected. In fact, all the evidence suggests that a DGR and its associated facilities will be a boon to tourism in the region. BNFL (British Nuclear Fuel Limited) ran waste facilities, and their visitor centre was the most popular tourist attraction in one of the UK's most vibrant tourist regions (<https://www.in-cumbria.com/news/17477221.sellafield-visitors-centre-demolished/>).

The CNS understands that when delegates from Canada visited the repository in Finland the locals told them that they had seen an increase in visitors, another example of why an actual visit was much better than a virtual presentation.

The only thing that is actually likely to disrupt tourism is scaremongering of the type shown in the template. If tourism is a concern the best approach to ensuring its ongoing success would be to have the scaremongering stopped.



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6. Determining Whether a Community is Willing or Not

It is very difficult to determine whether a community is willing or not but the “democratic ballot” that the letter appears to propose would be one of the poorest ways. For one thing, the vote would be made mostly by people that would never be affected in any significant way by the project, while those that might enjoy the eventual economic benefit would have no say as they are not old enough to vote yet.

Additionally, a vote may well be unduly affected by people that have been fooled by the misinformation and do not really understand the issues they are voting on.

The alternative, that is being used, where NWMO works with a democratically elected council, and helps them acquire the information that allows them to make an informed decision, may not be perfect, but it is a far better indicator of willingness than the proposed vote.

7. Traffic Volumes

It is hard to understand the relevance of the facts that are presented as the NWMO shipments will make no discernable difference to the amount of truck traffic and will certainly have a lesser effect than almost any other industrial activity that would give rise to similar economic benefits.

8. The Need to Isolate Used Fuel

Here the template cleverly uses semantics to deceive again. The whole principle of science is an acceptance that it is impossible to be absolutely certain about anything, so no good scientist will give guarantees. But life has to be planned around reasonable certainty, not guarantees, and that is something that scientists can and will commit to. NWMO scientists are working very hard to get us to that state of reasonable certainty, which in this case is a bar that is set very high. Others will inspect their work to make sure they have got it right.

But the idea that used fuel must be isolated “essentially indefinitely” is another fallacy easily disproved by the fact that almost everything in the used fuel is already in circulation in the biosphere as a result of natural processes. For example, each one of us eats about 2 mg of uranium (the primary constituent of used fuel) every single day and it does us no harm.

The Canadian Nuclear Society supports the request in the template that you act in the best interests of your constituents and your own descendants but believes that the way to do this is to make sure that your constituents are properly informed so that they can make good decisions.



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As an organization we would be delighted to help you in this endeavor. Please reach out to me if you have any questions or require any validation of the comments I have made.

Yours Sincerely

Doddy Kastanya


President, Canadian Nuclear Society



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Ignace Discussion Group

 **Lynn Brickman**
14 hours ago

IF YOU ARE AGAINST NUCLEAR WASTE BEING BURIED IN NWO
Please feel free to sign, copy and paste this template letter and email to your MP who is in his riding this week.
eric.Melillo@parl.gc.ca
807-468-2170




Dear Mr. Melillo:

I strongly object to a DGR for high level nuclear waste in NWO. Some of my reasons are as follows:



1. The NWMO's unscrupulous and psychological tactics used to manipulate municipalities and First Nations communities and buy their "willingness". For example:
 - millions of dollars in bribes under the guise of "education" money and "well-being" funds
 - all-expenses-paid trips for town councillors and persons in a position to influence others - even as far as Finland, to see a non-operational DGR very dissimilar to the one proposed between Dryden and Ignace - trips intended to entertain and impress and win favour, when a virtual tour, equally as informative, would do the same.
2. No full disclosure
 - There has been no environmental impact assessment of the transportation, processing or burial of these wastes made public
 - neglecting to inform the public of possible negative consequences of burying nuclear waste and shaming anyone who speaks about the risks on social media
 - not disclosing there are nuclear scientists opposed to the DGR because they believe there could be future value in the radioactive waste and therefore irretrievable burial and abandonment is not appropriate
3. The most highly radioactive waste will have to be isolated in a DGR for hundreds of thousands of years, yet very few people are aware that after 150 years the NWMO will close up the site and abandon it. There will be no reliable way to monitor the integrity of the casks or the site itself.
4. The NWMO says they will only proceed with an "informed and willing community." However, they are excluding residents and communities along the transportation route and downstream from their proposed site from the NWMO's "determination of willingness". This is a decision affecting our descendants for generations to come and should not be decided without full consideration of all those potentially affected by long-term radioactive hazards and associated risks and effects.
5. A nuclear waste dump would most likely destroy the tourism industry - vacationers, fishermen and hunters
6. A "willing community" will be decided, not by democratic ballot, but by a team, paid for by NWMO, to make contact with the 1200 citizens of Ignace and "capture their viewpoint". These viewpoints will then be analyzed and decided upon by a 5-member town council who don't appear to have the unanimous support of the people due to irregularities in the process that got them their seats.
7. From 2015-2020 there were 712 collisions along Hwy. 11/17 between Shabaqua and Ignace. 51.5% of these collisions involved heavy transport trucks. The Ontario Provincial Police has reported that transport truck collisions saw a 40 per cent increase in 2022.
8. Used fuel must be contained and isolated from people and the environment essentially indefinitely. No scientist can provide this guarantee.

Mr. Melillo, please act in the best interests of your constituents and your own descendants. Please ensure that ALL your constituents have a voice in this. I sincerely hope you decide the potential hazardous risks are not worth taking, but at the very least that the process being used to decide willingness is undemocratic and a farce.

Yours truly,
Eric Melillo, Kenora, eric.Melillo@parl.gc.ca, 807-468-2170

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