Public Comments

re: APM-REP-05000-0211-R000, Prepared by: Nuclear Waste Management Organization (NWMO), Initial Project Description Plain Language Summary (English) – Deep Geological Repository (DGR) for Canada's Used Nuclear Fuel Project, December 2025

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Public Comments:

The Nuclear Waste Management Organization (NWMO) has congratulated itself repeatedly about its respect for Anishinaabe land, waters, and life, culture, tradition, and knowledge. But the key question that NWMO has not addressed is why, in the year 2026, the Canadian nuclear industry (which NWMO represents, and from which NWMO if formed), the Canadian federal government, and the various provincial governments hosting irradiated nuclear fuel at nuclear power plants across Canada, are yet again targeting Indigenous Nations for the national highly radioactive waste dump?

I should hasten to add that the U.S. nuclear industry, the U.S. Department of Energy and U.S. Nuclear Regulatory Commission, and much of the rest of the U.S. federal government, have targeted Indigenous reservations, lands, and communities for highly radioactive waste dumps for many decades as well. They still do. (See "Radioactive Racism: The History of Targeting Native American Communities with High-Level Atomic Waste Dumps," at <http://archives.nirs.us/radwaste/scullvalley/historynativecommunitiesnuclearwaste06142005.pdf>.)

What explains this strange magnetic attraction between Indigenous Nations and highly radioactive waste? As detailed below, does environmental injustice explain it? Or, in other words, as it's referred to in the NIRS-Public Citizen backgrounder cited immediately above, does radioactive racism explain it?

As former NIRS executive director Michael Mariotte (1952-2016, <http://archives.nirs.us/about/michael.htm>) had posted on his office wall, "There is no right way to do the wrong thing." It certainly spoke to me, when I served as nuclear waste specialist at NIRS from 1999 to 2007, during the culmination of the successful resistance against the national highly radioactive waste dump targeted at Yucca Mountain, Nevada — Western Shoshone land. The resistance movement, allied with the Western Shoshone National Council, as well as the State of Nevada and its U.S. congressional delegation, comprised more than a thousand environmental organizations across the U.S., and even extending internationally, including to Canadian groups. (<http://archives.nirs.us/radwaste/yucca/yuccaopponentslist.htm>)

Targeting Indigenous communities for highly radioactive waste dumps is an environmental injustice on its face. There is no right way to do the wrong thing.

The Ojibwe of Canada, as with many Indigenous Nations, have been disproportionately burdened with radioactive and toxic hazards — an environmental injustice — but also many other forms of social, economic, and racial injustice. Again, the same is true in the United States. This does not make it right. Quite the opposite.

For example, the first chapter in Kai Erikson's sociological book *A New Species of Trouble: Explorations in Disaster, Trauma, and Community* (New York and London: W.W. Norton & Company, 1994), is devoted to "The Ojibwa of Grassy Narrows." Erikson describes the suffering of the Grassy Narrows First Nation, from alcoholism, to mercury contamination from upstream paper mills, to loss of social cohesion and connection to traditional lands and lifeways, including from being forced to move closer to the highway, in more densely packed spaces. The list of troubles goes on.

Erikson cites another book, *A Poison Stronger Than Love: The Destruction of an Ojibwa Community*, by Anastasia M. Shkilnyk (New Haven: Yale University Press, 1985). NIRS has a copy in its library. Why? Because the heart of Anishinaabe aki, relatively near Grassy Narrows, has been targeted for highly radioactive waste dumping before, as in the 1970s and 1980s.

How interesting, telling, and powerful it is that the former Chief of Grassy Narrows First Nation, Rudy Turtle, was a featured speaker at an Indigenous-led "Nuclear-Free Anishinaabe Aki Rally" held in Thunder Bay, Ontario on July 4, 2025. (See: <https://beyondnuclear.org/nuclear-free-anishinaabe-aki-rally-sets-stage-for-intensifying-opposition-to-nuclear-waste/>.) Rudy Turtle, now the chair of the Land Defense Alliance, was quoted as saying: "The land heals you. But now, what's happening today with the threat of nuclear waste, that experience is going to be destroyed and removed. We won't be able to enjoy that experience like we used to: we're going to be nervous, thinking about the poison that's in the land."

As described in an article in the newsletter of We the Nuclear-Free North, an estimated 400 people gathered in Waverley Park in Thunder Bay on July 4, 2025 for powerful speeches by First Nation leaders speaking in opposition to the transportation and burial of nuclear waste in northern Ontario.

The event in Waverley Park was followed by a march through Thunder Bay's north-end downtown area to the Spirit Garden on the shore of Gitchegami [Great Lake]/Lake Superior, where many gathered to hear further speakers into the early evening.

Other featured speakers included Fort William First Nation Chief Michele Solomon, Nishnawbe Aski Nation (NAN) Grand Chief Alvin Fiddler, Neskantaga First Nation Chief Gary Kwisses, and former Neskantaga Chief Chris Moonias. A local Indigenous women's drum group opened and closed the Waverley Park event, and Chrissy Isaacs of Grassy Narrows First Nation served as MC.

The emphatic consensus among speakers was that nuclear waste must not be brought to northern Ontario – given the risk of contamination that would threaten the lands, the waters, and the traditional way of life – and that opposition is strong and growing.

The rally was organized by Grassy Narrows (Asubpeeschoseewagong) First Nation and supported by many First Nations and by We the Nuclear Free North, an alliance of Indigenous

and non-Indigenous groups and residents opposed to the Nuclear Waste Management Organization's intent to use the Revell site between Ignace and Dryden for the processing, burial and abandonment of all of Canada's high-level nuclear waste.

The evening before featured a premiere screening of the film *The Moth*, by Thunder Bay Indigenous filmmaker Michelle Derosier. It portrays a possible future of industrial contamination and desolation in northern Ontario.

Thus, Grassy Narrows First Nation organized the event; several of its members then led the event.

I was honored and privileged to speak out against the highly radioactive waste dump targeted by NWMO at Wabigoon Lake Ojibway Nation and the Township of Ignace, at the Earth Day annual meeting of Environment North in Thunder Bay on April 23, 2025. (See: <https://beyondnuclear.org/nuke-waste-dump-ojibwe-country-once-again-targeted/>.) While there, I was fortunate to meet several members of the Fort William First Nation who are deeply concerned about NWMO's scheme, as well, including the risks and impacts of transporting highly radioactive irradiated nuclear fuel from nuclear power plants located long distances away, to the east and south, through Anishinaabe aki, bound for the Deep Geological Repository (DGR), proposed for very near the Wabigoon Lake Ojibway Nation.

On Page 26 (page 46 of 92 on the PDF counter) of NWMO's "*Initial Project Description [IPD] Plain Language Summary (English) – Deep Geological Repository*," it states:

Transportation of nuclear and non-nuclear materials within existing highways and railways is independently regulated and ongoing, does not require changes to current infrastructure or regulations and would continue regardless of the Project's implementation. These activities are governed by existing federal and provincial standards, such as the CNSC's Packaging and Transport of Nuclear Substances Regulations and the Transportation of Dangerous Goods Regulations and are not considered part of the Project's designated or incidental activities. For the impact assessment and licensing process, transportation-related effects are therefore limited to traffic and transportation activities along the new access roads, site roads, and rail spur constructed for the Project, and activities related to the Project within broader transportation networks remain outside the Project's scope.

This is objectionable — NWMO is attempting to take a major issue, risk, and impact off the table for discussion and comment.

As the very next section in NWMO's *IPD Summary* then states:

11. ESTIMATED MAXIMUM PRODUCTION CAPACITY OF THE PROJECT

An estimated 5.9 million bundles of used fuel will be processed in the UFPP over its operational lifetime of approximately 50 years (about 120,000 used fuel bundles per year). *On average, per the current conceptual reference design, 10 used fuel containers (UFCs) are planned to be processed and placed in the repository each workday, or approximately 2,500 UFCs each year. Alternative UFC designs may be examined throughout optimization perspectives.*

To achieve this throughput, the UFPP is likely to incorporate multiple processing lines. ***Based on annual shipping (receipt) assumptions, the maximum number of certified transportation packages received at the UFPP in any given year is estimated to be approximately 885, holding between 120 and 192 used fuel bundles in each certified transportation package****. The UFPP is designed to receive and process up to five certified transportation packages each day. Modules and baskets filled with used fuel may be placed into temporary dry storage, as required, until modules can be accepted for processing inside the UFPP.*

[Emphasis added]

This means two to three irradiated nuclear fuel transportation packages would travel the roads, rails, and/or waterways of Canada, each day, for five decades! That would be about 44,250 irradiated nuclear fuel transportation packages shipped to the DGR altogether!

That represents a highly radioactive waste shipping campaign unprecedented in North American history, which would compete with or surpass any such highly radioactive waste shipping campaign most anywhere else in the world.

Each of these 44,250 “Mobile Chornobyls,” “Floating Fukushimas,” “Dirty Bombs on Wheels,” or “Three Mile Islands in Transit” would be at continual risk of a severe accident, whether a high-speed crash into an unyielding surface, a high-temperature, long duration fire, an underwater submersion, a puncture, and/or a combimation of these or other destructive forces. In addition to such safety concerns are security concerns: these shipments would also be at risk of terrorist attack, sabotage, or an act of war. Regarding the latter, in Ukraine for the past four years, nuclear power plants, including their highly radioactive wastes stored on-site, have been on the front lines of combat, have even been directly attacked, and have narrowly averted radioactive catastrophes a large, and still growing, number of times.

I’ve included barging or boating of highly radioactive wastes to the Deep Geologic Repository (DGR), as that is increasingly under consideration by the U.S. Department of Energy and U.S.

nuclear industry, under various permanent geologic repository and consolidated interim storage facility schemes. (See, for example: <https://archive.beyondnuclear.org/waste-transportation/2017/6/29/potential-barge-routes-on-us-surface-waters-to-ship-high-lev.html>.)

Such barging of highly radioactive wastes could well happen on the U.S. side of the Great Lakes, if not stopped dead in its tracks, as our environmental coalitions strive to do.

But the Canadian nuclear industry, with assistance from Canadian federal government agencies, has also attempted to barge or boat radioactive wastes. Although considered "low-level" radioactive wastes, not highly radioactive waste, Bruce Nuclear Generating Station proposed from 2010 to 2012 shipping 64 large-sized radioactive steam generators, on Lakes Huron, St. Clair, Erie, and Ontario, on the St. Lawrence River, and across the Atlantic Ocean, to Sweden, for so-called "recyling." But it's not the physical size of the steam generators that is the risk (although their large size would make them much more difficult to retrieve if they sank). Although "low-level," there is enough radioactive contamination in the steam generator tubes that, if submerged in a small volume of water, such as the Detroit River between Detroit, Michigan, and Windsor, Ontario, release of even a fraction of the radioactive contents into the surface water body could lead to the declaration of a radiological emergency and the shutdown of nearby drinking water intakes, due to the concentration of the radioactive hazards. So testified the Great Lakes and St. Lawrence River Cities Initiative, during related Canadian Nuclear Safety Commission (CNSC) hearings in Ottawa. A broad, diverse coalition of organizations, across Canada, extending to the U.S., and even to Europe, joined together to oppose Bruce's scheme. The final nail in the coffin came from the Mohawks of Canada, who clearly stated the highly radioactive waste ships would not be allowed to pass through their territories. Bruce blinked and backed down.

All this to say that I don't believe shipping highly radioactive wastes via surface waters is off the table for NWMO's current DGR scheme.

Even if shipments to the DGR near Wabigoon Lake Ojibway Nation and the Township of Ignace were land-based (via trucks on highways, or trains on railways), they would still pass through the Great Lakes watershed on those routes. Hazardous, even catastrophic, releases of harmful radioactivity, during such land-based shipments, could well still impact the Great Lakes downstream and downwind.

Each of the 44,250 irradiated nuclear fuel transporation packages would also be a "Mobile X-ray Machine That Can't Be Turned Off." That is, even so-called "incident-free" or "routine" shipments — those not involved in accidents or attacks — would still emit hazardous radioactivity beyond the package. This is because installing enough radiation shielding to prevent

this would make the packages too heavy to transport efficiently, so compromises have been made. That is, those who come into the closest contact with these transportation packages as they pass through communities — the transport workers, inspectors, security guards or law enforcement escorts, and unsuspecting passersby — can and will be exposed to these inevitable hazardous radioactive emissions.

Externally contaminated, or leaking, transportation packages will make such exposures even worse.

It seems that a part of the reason that the 16 sites on the Great Lakes shorelines, or in the Great Lakes watershed, initially considered for NWMO's Canadian national highly radioactive waste DGR, were ultimately decided against, was the bicameral, bipartisan U.S. congressional caucus that rose up against them from 2013 to the present. Those congressional efforts came to be after a dozen years of grassroots organizing in such places as Michigan. In fact, U.S. Senator Debbie Stabenow, and U.S. Representative Dan Kildee, both Democrats from Michigan, led that bicameral, bipartisan congressional caucus for more than a decade. It all began after the Michigan State Senate passed a unanimous, bipartisan resolution opposed to Ontario Power Generation's (OPG) "low-level" and "intermediate-level" DGR, targeted at the Saugeen Ojibwe Nation at Kincardine, Ontario, at Bruce. The resolution was introduced by Michigan Democratic State Senator Hoon-Yung Hopgood, at the behest of his constituent, Ed McArdle, a Sierra Club member. The resistance in Michigan, and the other seven Great Lakes States, snowballed into an avalanche after that.

So, the current DGR target being a relatively short distance outside the Great Lakes watershed does not matter, in regards to the DGR-bound highly radioactive waste transports passing through the Great Lakes watershed, still putting them at risk. Many Americans in the Great Lakes watershed will not abide this, and their congressional representatives, and other elected leaders, will act accordingly, as they have been for a dozen years. Perhaps this is a part of the reason why NWMO is trying to take transportation risk and impact off the table for discussion and comment? That is outrageous.

Also, there is little to no mention in the NWMO *IPD Summary* about the watershed downstream of the proposed DGR site passing back through the United States. This would include through Lake of the Woods, Minnesota. So it is very likely that residents of Minnesota, and their governmental representatives, will become very concerned about NWMO's scheme, when they learn about it.

This makes good sense, of course. After all, the government of Canada expressed alarm when the U.S. government considered putting a DGR in Vermont in the 1980s, despite the potential impacts on common watersheds along the border. Those proposed dumps were eventually cancelled.

Among those residents who will grow alarmed when they learn of NWMO's DGR scheme, on the Minnesota side of that imaginary dotted line referred to as the U.S.-Canadian border, are of course members of Ojibwe and other Indigenous Nations.

In fact, as documented in Loiuse Erdrich's non-fiction *Books and Islands in Ojibwe Country: Traveling Through the Land of My Ancestors (see:* <https://birchbarkbooks.com/products/books-and-islands-in-ojibwe-country>), Lake of the Woods is sacred to the Ojibwe Nation, including its extensive, ancient rock art. Erdrich, a member of the Turtle Mountain Band of Chippewa, is herself based in Minnesota, and has spoken out against such threats to Anishinaabe aki as Enbridge Canadian tar sands oil pipelines (see her December 28, 2020 op-ed in the *New York Times*, "Not Just Another Pipeline: The expansion of Enbridge's Line 3 pipeline is a breathtaking betrayal of Minnesota's Indigenous communities — and the environment," at <https://www.nytimes.com/2020/12/28/opinion/minnesota-line-3-enbridge-pipeline.html?unlocked_article_code=1.JlA.8X58.oxfUZ11cqq_L&smid=url-share>.)

In addition to Minnesota-based Ojibwe Nations and their members engaged in resisting the Enbridge pipeline, such as at the White Earth, Leech Lake, and Red Lake Nation Reservations, and others, there are leading Indigenous-led environmental organizations based in Minnesota. This includes Indigenous Environmental Network (IEN) in Bemidji. IEN has co-led many successful campaigns to prevent highly radioactive waste dumping on Indigenous lands in the U.S., including at Yucca Mountain, Nevada (Western Shoshone land), the Skull Valley Goshutes Indian Reservation in Utah (see: <http://archives.nirs.us/radwaste/scullvalley/skullvalley.htm>), etc.

The same can be said about Honor the Earth, long based in Minnesota, but more recently based in Montana. Nonetheless, Honor the Earth has hosted multiple "Water Is Life" concert festivals in Duluth, to protect the waters of the Great Lakes, Mississippi, and other watersheds, against Canadian tar sands crude oil pipelines.

My point is, as Ojibwe and other Indigenous water protectors and environmental leaders in Minnesota learn of the NWMO DGR's threat to Lake of the Woods, and to Aniishinaabe aki, they can be expected to join the resistance, as they have so frequently done in the past, to fight against similar schemes targeting Indigenous communities and putting their land and life at risk.

After all, as Bad River Chippewa elder Joe Rose said in August 2019 at his Lake Superior home on the reservation, Indigenous water and land protectors are very often the first to oppose such environmental threats as Canadian tar sands oil pipelines, like the one threatening the wild rice beds at Bad River, Wisconsin.

So too regarding DGRs in Canada, consolidated interim storage facilities (CISFs) in the U.S., and other dangerously bad and environmentally unjust nuclear power and radioactive waste schemes, on both sides of the U.S./Canadian border. Eventually, hopefully, more and more non-Indigenous groups and communities will follow the lead of Indigenous Mother Earth protectors.

Comments submitted by Beyond Nuclear, Coalition for a Nuclear-Free Great Lakes, Don't Waste Michigan, IEN, and NIRS (as well as 135 other environmental groups, including Indigenous-led organizations, Environmental Justice organizations, and Black/Indigenous/People of Color-led organizations) to the U.S. Department of Energy (DOE) on March 4, 2022 are relevant here. For example:

Nuclear power should be phased out and abolished, so that no more highly radioactive waste will be generated. We need to stop making it in the first place. However for highly radioactive irradiated nuclear fuel (INF) that already exists, hardened on-site storage (HOSS), or hardened near-site storage, is the best interim measure, not CISFs [consolidated interim storage facilities, the context of the DOE's March 4, 2022 public comment period/opportunity]. HOSS, or hardened near-site storage, is the preferred interim alternative, not CISFs.

In addition to CISFs, the same could be said of dangerously bad, environmentally unjust DGRs, like the one currently proposed by NWMO near Wabigoon Lake Ojibway Nation and the Township of Ignace. In others words, the top priority should be on permanently shutting down existing atomic reactors, with no new build reactors to take their place. This should be followed immediately by implementing Hardened On-Site (or Near-Site) Storage (HOSS) for irradiated nuclear fuel stored on-site at nuclear power plants.

Here is another example from that same coalition comment to DOE:

The continued targeting of CISFs at BIPOC (Black, Indigenous, People of Color) and/or low-income communities, already disproportionately burdened by pollution and hazardous facilities, is a violation of environmental justice principles. DOE, which itself has an infamous history of targeting Native American reservations for CISFs (previously called by other names, such as Monitored Retrievable Storage (MRS) sites, Independent Spent Fuel Storage Installations (ISFSIs), Away From Reactor (AFR) sites, etc.), must cease and desist from such environmentally/radioactively racist practices.

Again, the same could be said about NWMO's current DGR scheme.

(See: <https://archive.beyondnuclear.org/centralized-storage/2022/3/8/top-ten-overarching-comments-in-summary-form-submitted-to-do.html>.)

Re: the **"Area 1: Consent-Based Siting Process"** section, here is another example (from Pages 3-4) from that same March 4, 2022 coalition comment to DOE (see: <https://archive.beyondnuclear.org/centralized-storage/2022/3/4/coalition-comments-to-doe-in-defense-of-environmental-justic.html>):

Social equity and environmental justice should be a top priority for "consent-based siting" of all federal nuclear facilities, including so-called "consolidated interim storage facilities" (CISFs), if they ever become legal. It is Orwellian to float the offer of jobs, infrastructure development, and potential funding to BIPOC (Black, Indigenous, People of Color) communities, low-income communities, and such communities already disproportionately impacted by hazardous facilities, and portray it as a social equity and environmental justice advancement. BIPOC, low-income, and already heavily polluted communities should not be further disproportionately impacted with CISFs for one of the most hazardous substances ever generated by human society, highly radioactive irradiated nuclear fuel.

As Keith Lewis, environmental director for the Serpent River (Ojibwe) First Nation near Elliot Lake, Ontario, Canada, is quoted as saying in This Is My Homeland: Stories of the Effects of Nuclear Industries by People of the Serpent River First Nation and the North Shore of Lake Huron (edited by Keith Lewis, Lorraine Rekmans, and Anabel Dwyer; published by Serpent River First Nation, 1998 & 2003) — "There is nothing moral about bribing a starving man with money." He was speaking about the devastation done to his First Nation, and its homeland, by the offer of hazardous uranium mining and milling jobs beginning in 1948, and ending altogether by 1996. The jobs are long since gone, but the devastation goes on. His quote is entirely relevant to highly radioactive wastes as well, such as when DOE targets BIPOC and/or low-income communities, many times already disproportionately polluted by hazardous industries, with the added hazardous pollution burden of federal CISFs.

DOE itself has a most shameful tradition of targeting Native American reservations/Sovereign Indigenous Nations for CISFs. See the 2005 NIRS/Public Citizen factsheet, "Radioactive Racism." < posted online at: http://archives.nirs.us/radwaste/scullvalley/historynativecommunitiesnuclearwaste06142005.pdf > This shameful history cannot be repeated now or in the future…

…Significantly, New Mexico is a majority minority (Latinx, Indigenous) state, with widespread poverty issues. It is also disproportionately impacted by nuclear and fossil fuel industrial pollution, and other hazardous industries. Such disproportionate impacts are especially acute at the Holtec, NM and Interim Storage Partners, TX CISF sites (the latter just 0.37 miles from the NM state line, and upstream). These disproportionate impacts are compounded by the two supposedly "private" CISFs, proposed to "temporarily store" a grand total of up to 213,600 metric tons of commercial irradiated nuclear fuel and highly radioactive waste (more than twice

the amount that currently exists in the U.S.), being located just 40-some miles apart. These proposed "private" CISFs are an attempt to turn the TX/NM borderlands into a high-level radioactive waste dump, a national sacrifice area…

[Emphasis added]

Lorraine Rekmans is also a member of the Serpent River First Nation, an Ojibwe Nation.

Again, these comments apply as much to NWMO's DGR as they do to the DOE and private CISFs targeting New Mexico, Texas, and elsewhere in the U.S.

One of the backgrounders shared with DOE as a part of the coalition comment was focused on Environmental Justice (EJ). It is linked here:

Consolidated "Interim" Storage of Highly Radioactive Nuclear Waste: A Dangerous and Inequitable Dead-End Detour Away from a Repository.

(Or: <https://static1.1.sqspcdn.com/static/f/356082/28466350/1631389405890/CISF+Dangers+and+Holtec+and+ISP+sites-3.pdf?token=lRpIKA9EwgQWbmrBO6RWZuAif8E%3D>)

Significantly, EJ concerns extend to transportation risks and impacts, not just to the CISF or permanent dump (DGR) itself.

Along similar lines, here is another closely related Beyond Nuclear publication of relevance to NWMO's DGR, including the EJ risks, impacts, and concerns of irradiated nuclear fuel transportation, which NWMO would prefer to largely or even entirely ignore, other than for transportation issues very near to the DGR site itself:

Four-minute video about the environmental justice (EJ) aspects of high-level radioactive waste, including the fact that Black, Indigenous, People of Color (BIPOC) and low-income communities are most often the ones targeted for dump-sites (such as so-called consolidated interim storage facilities), as well as such EJ communities also burdened by highly radioactive waste's transportation along the nationwide routes from reactors to such dumps. The video features verbal remarks by Ian Zabarte, Principal Man of the Western Bands of the Shoshone Nation, as well as by Dr. Mustafa Santiago Ali, who formerly served at the U.S. Environmental Protection Agency, as well as an EJ advisor during the Obama administration. The video also features quotations from New Mexico resident Patricia Cardona, as well as from Laura Watchempino, who works with the Laguna-Acoma Coalition for a Safe Environment.

(Or: https://drive.google.com/drive/folders/1Ux94V0lzNJPQTcP0JgWnai3FMg7rAJMN)

Here is another comment of relevance to NWMO's DGR, taken from our coalition comments to DOE on March 4, 2022 (from page 4):

["Area 1: Consent-Based Siting Process" DOE question #] 2. What role should Tribal, State, and local governments and officials play in determining consent for a community to host a federal interim storage facility?

[Coalition comment:] Tribal, state, and local governments should have free, and fully-informed, consent-based siting rights, including an absolute veto against a federal CISF. That is, tribal, state, and local governments should have fully-informed, absolute, binding, and final rights to non-consent. Any DOE, or private, scheme to construct and operate a CISF must cease and desist immediately, once tribal, state, and/or local government "hosts" express their non-consent. In addition, consent-based siting rights should extend directly to the citizens/residents of the tribal reservation, state, and/or locality. Free, and fully-informed, consent-based siting rights should extend to citizens/residents, who should also have absolute and final veto rights to block CISFs.

For example, the Saugeen Ojibwe Nation in Ontario, by an 86% to 14% tribal referendum vote in January 2020, blocked the construction and operation of a permanent repository for all of Ontario's so-called "low-," and highly radioactive intermediate-, level radioactive wastes. Free, and fully-informed, consent rights to consent, or not consent, should be extended as widely as possible, including to the public, not just to elected or appointed government leaders. And such free, fully-informed consent, with absolute and final state veto power, should also extend to permanent repositories, not just CISFs, as the Nevada U.S. congressional delegation has asserted for the past several years, with its re-introduction each congressional session of the Nuclear Waste Informed Consent Act.

Here is another comment of relevance to NWMO's DGR, taken from pages 4 to 5 of our coalition comments to DOE on March 4, 2022:

["Area 1: Consent-Based Siting Process" DOE question #] 3. What benefits or opportunities could encourage local, State, and Tribal governments to consider engaging with the Department as it works to identify federal interim storage sites?

[Coalition comment:] As mentioned above, the idea that jobs, infrastructure development, and/or potential funding, associated with the construction and operation of a CISF, is not compatible with environmental justice and social equity, when the CISF is targeted at BIPOC and/or low-income communities, already heavily polluted by nuclear and/or other hazardous industries.

Thus, DOE should cease and desist from targeting BIPOC, low-income, and/or already heavily polluted communities for CISFs.

Instead, the benefits and opportunities that DOE should be extending to local, state, and/or tribal governments, in line with environmental justice and social equity, should be renewable energy and energy efficiency, as well as clean up and remediation, in nature. DOE should shift resources from the dead end that is promotion of the nuclear power industry and its dirty, dangerous, and expensive agenda, and instead promote renewables, such as wind and solar power, as well as energy efficiency. And DOE should shift resources from the promotion of nuclear power, to the clean up and remediation of past radiological contamination messes. ***As Winona LaDuke of Honor the Earth has put it, "The first rule in kindergarten is, you have to clean up your last mess, before you get to make a new one."***

In 2012, at a hearing of the U.S. Senate Energy and Natural Resources Committee, focused on legislation to implement the Blue Ribbon Commission on America's Nuclear Future's (BRC) recently released Final Report (published in Jan. 2012), U.S. Senator Risch (R[epublican]-ID) made a cynical joke. He said that "consent-based siting," recommended by the BRC, really meant financial incentives. Sen. Risch's cynical remark was very telling and revealing. And objectionable. DOE's "consent-based siting" cannot be a thinly veiled PR (public relations) ploy to "get to yes" on CISFs. Legalized bribery is unacceptable, and in this case an EJ violation. As Keith Lewis of Serpent River First Nation was quoted above, "There is nothing moral about bribing a starving man with money." It would fly in the face of the Biden administration's own rhetoric about prioritization of EJ principles, rhetoric that Energy Secretary Granholm and Principal Deputy Assistant Secretary Huff have themselves invoked.

*[**Emphasis added**.]*

Winona "No Nukes" LaDuke is also a member of the White Earth Ojibwe Nation in Minnesota. She formerly served as the executive director of Honor the Earth, mentioned above, including coordinating their concerts and festivals over decades, including those focused on stopping highly radioactive waste dumps targeted at Indigenous Nations, such as the Western Shoshone and Southern Paiute (Yucca Mountain, Nevada) and Skull Valley Goshutes (Private Fuel Storage in Utah).

Here is another coalition comment to DOE (from pages 5-6) on March 4, 2022, relevant to NWMO's DGR:

["Area 1: Consent-Based Siting Process" DOE question #] 4. What are barriers or impediments to successful siting of federal interim storage facilities using a consent-based process and how could they be addressed?**

First and foremost, we should STOP MAKING MORE NUCLEAR WASTE.

In addition, as DOE Office of Nuclear Energy's own Blue Ribbon Commission on America's Nuclear Future (BRC) recommended in its Final Report in January 2012, DOE should no longer be in charge of irradiated nuclear fuel and highly radioactive waste management. A major reason for the public's irreparable loss of trust in DOE is its incompetence, or worse, at managing irradiated nuclear fuel and highly radioactive waste over decades past. Hence DOE must be replaced. This recommendation was as much of an overarching priority as the need for "consent-based siting" itself. This of course represents a major barrier and impediment to DOE's attempt to site federal CISFs, even supposedly using a "consent-based" process. DOE should not be advancing this Request for Information and public comment proceeding. Any such initiatives should be left to the replacement agency, organization, or body, advocated by BRC a decade ago. Why is DOE driving this train, when its very own BRC strongly recommended DOE be replaced in the driver's seat?

As Benjamin Franklin put it, "an ounce of prevention is worth a pound of cure." That is, we should stop making any more highly radioactive waste. In other words, nuclear power should be phased out and abolished, as soon as possible.

And NWMO has also lost trust and is still losing more of it, regarding highly radioactive waste transportation and DGR disposal, as has DOE in the U.S. For one thing, there is currently no plan to phase out and abolish nuclear power, and radioactive waste generation, in Canada, just as there is no plan to do so in the U.S. If there is no finite cap on the quantity of irradiated nuclear fuel proposed to be transported to, and disposed at, NWMO's DGR, then such issues as irradiated nuclear fuel's more than million-year hazard, and the inevitable loss of institutional control, are entirely relevant to NWMO's DGR scheme.

Please note the hard-won million-year standard was the result of a successful lawsuit filed by an environmental coalition, including NIRS, against the U.S. Environmental Protection Agency, in the context of the Yucca Mountain Project on Western Shoshone land in Nevada. The lawsuit was filed in 2002, and the U.S. Court of Appeals for the District of Columbia's favorable ruling came down on July 9, 2004. EPA's million-year standard replaced its unlawful attempt at a mere 10,000-year standard.

Regarding [**"Area 1: Consent-Based Siting Process"** DOE's question # 5] in the March 4, 2022 communication — namely **How should the Department work with local communities to establish reasonable expectations and plans concerning the duration of storage at federal interim storage facilities?** — our coalition comments focused on CISF issues, not DGR issues. However, our comments regarding the more than million-year hazard of irradiated nuclear fuel, as well as the inevitable loss of institutional control, are entirely relevant to NWMO's DGR

scheme. Given present and potential future Canadian reactor license extension schemes, as well as new build reactor schemes, what if the quantities of highly radioactive waste NWMO plans to bury at its DGR are non-conservative? What if those limits are exceeded? Will NWMO seek an expansion of the amount of highly radioactive waste to be buried at the DGR? And if the spigot is never turned off on highly radioactive waste generation, will NWMO also seek to extend the operating license at its DGR to accommodate that never ending stream of highly radioactive waste importation for disposal near Wabigoon Lake Ojibway Nation and the Township of Ignace?

Or will NWMO target yet another site in Canada, for yet another DGR? Will NWMO again target Indigenous Nations for such a second DGR?

DOE's Waste Isolation Pilot Plant (WIPP) in New Mexico is a cautionary tale in such regards. Although for disposal of "low-level" (but ultra-hazardous) Trans-Uranic Wastes (TRU) from the U.S. nuclear weapons complex, rather than commercial irradiated nuclear fuel, WIPP was already supposed to have closed, and another TRU repository opened in another state. But DOE is now clearly attempting to keep WIPP open forever, with no limit on the amount of TRU waste to be disposed there, breaking its promise to the State of New Mexico.

While Beyond Nuclear's backgrounders re: CISFs point to deep geologic repository "disposal" as preferable, such DGRs need to meet stringent criteria, or else they are non-starters for consideration. (See these backgrounders here: <https://beyondnuclear.org/revised-updated-fact-sheets-about-why-we-oppose-cisfs/>.)

See Beyond Nuclear's Stringent Criteria for a Highly Radioactive Waste Geologic Repository:

Prepared by Kevin Kamps (Beyond Nuclear radioactive waste specialist; Don't Waste Michigan board of directors member; Citizens for Alternatives to Chemical Contamination advisory board member)

May 26, 2020

The Earth's surface is such a volatile, fragile, and high-risk location, that our search for a deep geologic repository for permanent isolation of highly radioactive wastes is a critical imperative. (Just as critical is the need to stop the generation of highly radioactive wastes in the first place, since -- even 78 years after Enrico Fermi generated the first highly radioactive wastes during the Manhattan Project, and 63 years after the commencement of operations at the first U.S. "civilian" or commercial reactor, generating irradiated nuclear fuel -- we currently still have no

safe, secure, sound, acceptable solution for their permanent disposition.) The basic but stringent criteria, however, which such a candidate geologic repository site would have to meet would include:

(1) Legality (for example, a proposed site can't violate U.S. treaties with Native American Nations, like the Western Shoshone Treaty of Ruby Valley of 1863; such treaties are the highest law of the land, equal in stature to the U.S. Constitution itself).

(2) Consent-based siting (the Western Shoshone, and the State of Nevada, do not consent to the Yucca dump; legalized bribery of vulnerable communities also does not constitute "consent"; as Keith Lewis, environmental director of the Serpent River First Nation in Ontario, put it in the book This Is My Homeland: Stories of the effects of nuclear industries by people of the Serpent River First Nation and the north shore of Lake Huron (1998, published by Serpent River First Nation, edited by Serpent River First Nation Members Lorraine Rekmans and Keith Lewis, as well as by Anabel Dwyer), "There is nothing moral about bribing a starving man with money."

(3) Scientific suitability (that is, isolation of hazardous radioactivity from the living environment for at least a million years -- Yucca can't meet this criteria either, by a long shot! If the Yucca dump were opened, serious leakage to the environment could begin within centuries, but would become large-scale after 11,000 years, this according to DOE's own computer modeling! The leakage would just worsen over longer time periods. It would continue to present a hazard for a million years or more).

(4) Environmental justice (Newe Sogobia and Nevada can't be targeted again, after decades of nuclear weapons testing fallout, "low" level radioactive waste dumping, etc.).

(5) Regional equity (no East dumps on West, especially when 90% of the highly radioactive wastes are in the eastern half of the U.S., and 75% is east of the Mississippi River).

(6) Mitigation of transport risks (closely related to regional equity, immediately above).

(7) Inter-generational equity (related to scientific suitability, above -- no double standards, as at the proposed Yucca dump, where the first 10,000 years' "allowable" or "permissible" dose standard is 15 milli-Rem per year, which then is "allowed" or "permitted" to go up to 100 mR/yr after 10,000 years out to a million years -- meaning future generations would face 6.66 times more "allowable"/"permissible" exposure to hazardous radioactivity than current generations!).

(8) Non-proliferation (the risk of the weapons-grade plutonium in the irradiated nuclear fuel being exploited for weapons manufacture is a major reason that perpetual surface storage is not acceptable, and permanent irreversible "disposal" is needed).

(9) Pre-"disposal" reprocessing is unacceptable (given the weapons proliferation risk, the environmental ruination and health damage that would result from large-scale hazardous

radioactivity releases, not to mention the astronomical expense, which the public would be forced to pay for).

(10) This list of required strict siting criteria could well expand, as additional concerns come to light.

(These "Stringent Criteria" are also posted here: <https://archive.beyondnuclear.org/repositories/2020/5/26/stringent-criteria-for-a-highly-radioactive-waste-geologic-r.html>.)

Re: stringent criteria point #10 immediately above, avoiding desecration of Indigenous sacred sites — like the islands and ancient rock art in the Anishinaabe aki of Lake of the Woods, Minnesota, would be a good, reasonable addition. DGR-bound shipments and DGR-dumping by NWMO at Revell Lake could threaten radioactive contamination of these Ojibwe sacred sites in Lake of the Woods, including at any point over the next million years or more, if the DGR leaks (including from its surface irradiated nuclear fuel handling and storage facilities), and its radioactive releases enter the ground- and/or surface-water flows, airshed, etc.

So too would be avoidance of national and state and provincial parks, in terms of irradiated nuclear fuel transport and dumping risks. Of course, there are many such sites along the U.S./Canadian border that would be impacted by this NWMO DGR scheme. The Minnesota and Ontario border features a dense concentration of national, state, and provincial parks, anchored by the interconnected waterway systems of the Boundary Waters and Voyageurs National Parks — all too close to NWMO's DGR and its transport routes.

NWMO's DGR scheme violates a number of these stringent criteria, and the jury is still out on a number more. Thus, NWMO's DGR is a non-starter.

Re: **"Area 1: Consent-Based Siting Process"** DOE question #: **7. What other issues, including those raised in the Draft Consent-Based Siting Process (www.energy.gov/ sites/ prod/ files/ 2017/ 01/ f34/ Draft Consent-Based Siting Process and Siting Considerations.pdf) [sic, please note that this is a broken link, despite its inclusion in the Federal Register Notice] should the Department consider in implementing a consent-based siting process?,** the coalition responded (see pages 7 to 9 in the coalition comment document):

Opponents to federal and/or private CISFs have likely submitted more than 100,000 public comments opposed to CISFs over past years and decades. This has included public comments submitted to: NRC in the Private Fuel Storage, LLC (targeted at the Skull Valley Goshutes Indian Reservation in Utah < see: http://archives.nirs.us/radwaste/scullvalley/skullvalley.htm >) CISF environmental review public comment proceedings, in the late 1990s/early 2000s; the DOE Office of Nuclear Energy's own Blue Ribbon Commission on America's Nuclear Future (2010-2012); the U.S. Senate Energy and Natural Resources Committee chairman Ron Wyden (Democrat-Oregon) a decade ago, when the ENR Committee requested public comment during the development of legislation to implement the BRC's recommendations; DOE's own previous "Consent-Based Siting" public comment proceeding (2015-2017); and the current round of CISF

targeting (namely, at Interim Storage Partners in Texas, and Holtec in New Mexico) NRC environmental review public comment proceedings (2017-2021); and other related public comment proceedings. DOE should compile, publish, review, consider, and respond in writing, to all these previous 100,000+ public comments, opposed to CISFs, whether privately owned, or federally implemented.

As those 100,000+ comments have made clear not for years, but for decades, large numbers of Americans rightfully regard CISFs as a very dangerous, non-sensical non-starter. Highly radioactive wastes and irradiated nuclear fuel should only be shipped once, from the nuclear power plant sites and DOE facilities where they are currently stored, to a technically suitable, socially acceptable permanent geologic repository. [Which NWMO's DGR is not.] (See Beyond Nuclear's "Stringent Criteria for a Highly Radioactive Waste Geologic Repository." < http://archive.beyondnuclear.org/repositories/2020/5/26/stringent-criteria-for-a-highly-radioactive-waste-geologic-r.html >)

CISFs, by definition, guarantee that serious transport risks will be multiplied, for no good reason whatsoever, as irradiated nuclear fuel and highly radioactive waste crosses the country from reactor sites and DOE facilities, to CISFs, only to have to be shipped again someday (or some decade, or some century) to a permanent repository. The permanent repository could be located right back in the same direction from which the irradiated nuclear fuel came in the first place, further revealing the absolute folly of CISFs.

If CISFs are merely intended to expedite the transfer of title and liability for commercial irradiated nuclear fuel, from industry onto DOE (that is, federal taxpayers), this is entirely unacceptable. As federal policy, law, and regulation have long established, and as courts have ruled, interim storage is the private owners' responsibility, while permanent disposal is the federal government's (that is, DOE's or its replacement entity, per the BRC recommendation — that is, ultimately, federal taxpayers') responsibility. (The nuclear ratepayer funded Nuclear Waste Fund does currently contain some $40 billion, for use on permanent geologic disposal. But repositories will cost far more than this. Federal taxpayers will be looked to to make up the difference.) This latter policy, of the federal government bearing responsibility for permanent disposal, already represents an unprecedented, unique in all of industry, very large-scale subsidy to a private industry. The nuclear power industry should not be allowed to foist interim storage costs, risks, and liability onto DOE (that is, taxpayers) as well. This would be a radical departure from past federal policy, law, regulation, and court ruling precedent.

Besides, DOE, as well as NRC, the nuclear power industry, and its proponents, stubbornly refuse to acknowledge much or any risk associated with on-site storage of irradiated nuclear fuel and highly radioactive waste, whether stored in wet indoor pools, or outdoor dry cask storage, whether at operating nuclear power plants, permanently closed atomic reactors, DOE complex sites, or elsewhere. If such on-site storage is so safe and secure, as DOE, NRC, and the nuclear power industry assert, then why ship the wastes to CISFs? Why take the unnecessary transport risks? Why expose away-from-reactor "green field" sites to the very high risks of CISFs, if

current on-site storage is so safe and secure? DOE, NRC, and the nuclear power industry are speaking out both sides of their mouth, in their advocacy for unneeded, unhelpful CISFs. CISFs actually multiply the risks, unnecessarily, unhelpfully, and should be rejected.
By the way, on-site storage is not safe and secure. Far from it. This is why more than 200 groups, representing all 50 states, have called for hardened on-site storage, for the past two decades. See more about HOSS, elsewhere in our comments.

In addition to all the public comments listed above that DOE should have considered, I would add the public comments on DOE's own Yucca Mountain Project, from the 1990s to 2010, especially regarding concerns about irradiated nuclear fuel transport risks. This would add tens of thousands of additional comments to the totals mentioned above.

As with our March 4, 2022 coalition comments to DOE, so too these comments should be applied to NWMO's DGR. And just as we called on DOE to incorporate all relevant public comments opposed to CISFs in the U.S. from closely related public comment proceedings, I urge NWMO and IAAC (and any other Canadian federal and provincial agencies concerned and involved with DGR decision making and license application review) to consider all relevant public comments opposed to DGRs from previous proceedings, to shed light on NWMO's current DGR scheme at Revell Lake, Ontario.

Our coalition comments to DOE, from pages 9 to 33, submitted on March 4, 2022, carry on similarly as above. The full list of 140 endorsing organizations is then given from pages 34 to 47. I urge NWMO, IAAC, and other Canadian federal and provincial decision makers and license application reviewers, including CNSC, to consider the entirety of our coalition comments, in light of the Revell Lake, Ontario DGR scheme. (Again, see the full comments posted here: <https://static1.1.sqspcdn.com/static/f/356082/28506751/1646668065377/3+4+22+coalition+comments.pdf?token=6Low5dgbO6E2gtQkPET9mHIlwcY%3D>.)

This should also include all public comments and testimonies opposed to the multiple DGRs targeted at the Bruce Peninsula and Saugeen Ojibwe Nation area, over the course of two decades. The final nail in the coffin of those DGRs was nailed by S.O.N., by a 86% to 14% tribal referendum "NO!" vote on the proposed "low-level" and "intermediate-level" DGR for Ontario wastes. But that "NO!" vote also ultimately sank NWMO's schemes to locate a highly radioactive waste DGR in that area, as well.

ADDITIONAL COMMENTS:

Another great, relevant quote from Winona "No Nukes" LaDuke is:

“The best minds in the nuclear industry have been hard at work for 50 years trying to find a solution to the nuclear waste problem, and finally they found one: haul it down a dirt road and dump it on an Indian reservation.”

She said that at an Honor the Earth concert, from stage between musical acts, to a very large crowd in Salt Lake City, Utah, in 2000. This was in the heart of the resistance battle against the Private Fuel Storage, LLC consolidated interim storage resistance struggle. A tiny Indigenous Nation of 125 adults, the Skull Valley Goshutes, was targeted by a dozen nuclear power utilities, looking to haul their 40,000 metric tons of irradiated nuclear fuel down a dirt road, to dump on an Indigenous reservation.

Here is a great quote from Michael Keegan, chair of the Coalition for a Nuclear-Free Great Lakes:

“Electricity is but the fleeting byproduct of atomic reactors. The actual product is forever deadly radioactive waste, a curse on all future generations.”

He said that at an event held at Western Michigan University in Kalamazoo, Michigan in March 1993. “All future generations” does begin to capture the very long-lasting, “forever deadly” nature of irradiated nuclear fuel. Beyond EPA’s million-year standard at Yucca Mountain, consider Iodine-129, a reactor-generated radioactive isotope. Its half-life is 15.7 million years. Thus, it’s hazardous persistence is at least 157 million years, 10 half-lives. A more conservative figure would account for 20 half-lives, or 314 million years post-generation.

The generation of highly radioactive waste in the first place represents the opposite of the Haudenausaunee Indigenous Nations’ wisdom of making decisions with the wellbeing of the next seven generations in mind, and in heart. A million years, divided by 25 years per human generations, means that highly radioactive waste will remain a curse for the next 40,000 human generations!

If irradiated nuclear fuel is so safe, as in on-site storage at nuclear power plants (in both indoor wet storage pools, as well as outdoor dry casks), then why transport it so far, to bury it at Revell Lake? It is far from safe and secure, no matter where it is stored, transported, or dumped.

NWMO has stated multiple times in the *IPD Summary* that socio-economic impacts from the DGR would be mostly to entirely positive in nature, and left it at that. (See, for example, Section 16, beginning on page 41 — p. 61/92 on the PDF counter.)

This is absurd. What about the radioactive stigma effect or impact, even if there are no incidents, accidents, disasters, or catastrophes? And what if there are incidents, accidents, disasters, or catastrophes? The radioactive stigma impacts would be even worse then. Consider agricultural products grown in the Chornobyl or Fukushima areas, for example. Consider the impacts on tourism, recreation, fishing, and hunting, and other socio-economic sectors, around Revell Lake, for example.

The State of Nevada has done groundbreaking research on the radioactive stigma effect of the proposed Yucca Mountain Project, including its transportation aspects. The radioactive stigma effect is significant, and will mean serious socio-economic negative impacts on Wabigoon Lake Ojibway Nation, the Township of Ignace, and the large number of communities through which many tens of thousands of irradiated nuclear fuel transport packages are shipped.

The CANDU reactor design — its use of voluminous natural, un-enriched uranium fuel — accounts for the very large amount of highly radioactive waste generated in Canada. Keith Matheny in the *Detroit Free Press* several years ago reported that at that point in time, some 50,000 metric tons of the 60,000 MT of irradiated nuclear fuel storage on the shorelines of the Great Lakes are located on the CANADIAN side of Great Lakes. Not that 10,000 MT of irradiated nuclear fuel stored on the U.S. side of the Great Lakes is a good thing, it is not.

On my very first day working at NIRS in Washington, D.C. in June 1999, I met the senior U.S. Senator from Nevada, former Nevada governor, Richard Bryan, a Democrat. He warned me that the Yucca Mountain dump issue did not hinge on the technical merits — it was "raw politics." The scientific and technical merits were largely beside the point, when it came right down to it. This is how the "Screw Nevada" bill of 1987 was enacted into law, throwing the scientific and technical site search, comparing sites across the U.S. to each other, out the window. Yucca Mountain, on Western Shoshone land in Nevada, was chosen by Congress, and President Reagan, through raw politics, at the behest of the nuclear industry's lobbyists. Despite all this, the Yucca Mountain dump was stopped dead in its tracks, although this took decades to accomplish.

Both the U.S. and Canada need to stop generating and storing highly radioactive waste on their mutual borders, including on the Great Lakes, but now also near the Boundary Waters region of Minnesota and Ontario. Just as Canada urged the U.S. to not bury highly radioactive waste in Vermont, potentially impacting shared watersheds between the two countries, so too should Canada stop threatening the watershed that flows through Lake of the Woods, Minnesota — namely, by cancelling the DGR targeted at Revell Lake.

These boundary waters, which are supposed to be protected by the U.S. and Canada under the 1909 treaty that established the International Joint Commission, are more vital than ever,

especially considering the threats of global warming. They are a vital source of drinking water, and so much more, for many millions of Americans, Canadians, and Indigenous Peoples. The nuclear industry needs to stop threatening them with radioactive ruination.

The Scandinavian documentary film "Into Eternity," about Finland's Onkalo (Hiding Place) DGR, as well as the Harvard University documentary film "Containment," also about DGRs like WIPP in New Mexico (the only currently operational DGR in the world for radioactive waste, albeit nuclear weapons complex TRU waste) have strongly warned about the risks of inadvertent — or even advertent — human intrusion into DGRs. Should DGRs be marked, or not — that is the question. Should they be marked as a warning against inadvertent intrustion? But what if the markers ironically lead to intentional intrustion, such as humans intentionally seeking weapons-usable Plutonium-239 contained in the DGRs, for military purposes? In both Finland and the U.S., that debate rages on unresolved, even as the DGR in Finland moves closer to operational status.

I must point out how ironic it is that this Feb. 4 public comment deadline falls so close to Groundhog Day (Feb. 2) — after all, this NWMO DGR scheme is but the latest in countless rounds of radioactive waste dump "whack-a-mole"! No offense to groundhogs or moles! (Which, by the way, seriously though, can each spread radioactive contamination, just through their burrowing and digging lifestyles, as can other animals. This has been a problem at NASA's Plum Brook nuclear research facility near Huron, Ohio, near the Lake Erie shoreline, as but one example.)

Re: my comments on "legalized bribery" above — if the nuclear industry and Canadian federal government, and Ontario and other provincial governments, want to help Indigneous Nations, or help more remote or rural municipalities, why not just help them? No strings attached. No quid pro quo. No radioactive waste dump ultimatums in exchange for the help.

Re: NWMO's proposed ignoring of transport risk and impact, other than in the immediate vicinity of the dump: under the U.S. National Environmental Policy Act (NEPA), this would amount to unlawful "segmentation," as it is called.

If we manage to not turn Earth into a Venus-like sauna of a planet forevermore, via global warming, is NWMO's proposed DGR desiged to be located deep enough to avoid future glacial scraping events over the distant future? This very concern has been a part of Finland's Onkalo repsitory design process.

A question: How far outside the Great Lakes watershed is the Revell Lake targeted site for the DGR? I did not see this mentioned in the NWMO *IPD Summary*.

The Index Map on Figure 15.2 on page 38 (p.58/92 on the PDF counter) is the closest thing to an answer — how far outside the Great Lakes (Lake Superior) watershed is this DGR location? It looks like 100-150 km, given the scale provided.

Has the State of Minnesota been consulted by the NWMO? Have the Indigenous Nations of Minnesota been consulted? Have environmental groups in Minnesota been consulted? Just as Michigan was not meaningfully consulted (or consulted at all!) by proponents of the DGR(s) targeted at the Bruce Peninsula on/near the Lake Huron shoreline, such a lack of adequate, meaningful consultation is a violation of consent-based siting.

The DGR's development and construction would disturb the site's geological stability, creating pathways for corrosive water to enter the DGR, and for radioactivity to escape into the environment over time. Don't even the exploratory boreholes already dirlled contribute to such hydro-geological degradation and instability of the DGR site?

Sections 15.10 and 15.11 seem to contradict each other. See for example bats and Species at Risk; no reptiles, but then mention of snapping turtle; etc.

Also, under BIRDS, is the barn swallow the only SAR (Species at Risk), or are all the bird species SAR? The way it is written is not clear about this.

<Mall> appears instead of <small> on page 62. This is the second such occurrence. Such typos/misspellings should be corrected.

Hosting agreements can be regarded as a form of Faustian fission.

On page 63/92 on the PDF counter, NWMO states:

16.2 Social Determinants of Health

The social determinants of health are non-medical factors that influence health outcomes, such as income, education, employment, and housing. **In 2020, a significant percentage of households in Ignace, Kenora district, and Ontario were considered low income. Education levels in Ignace are lower compared to the remainder of Ontario, with a higher percentage of residents having no certificate, diploma, or degree.**

So targeting a low-income community like the Township of Ignace, which faces additional socio-economic challenges, is also a form of environmental injustice.

In Section 20.1.2, on page 55 — this seems to contain a typo:

<4 in the IPD presents the pathways of change screening.>

Doing a word search for <cumulative>, as in cumulative effects or impacts, yields only one hit, in Table 22-1. This is far from sufficient addressing of cumulative effects or impacts. By comparison, my entire presentation to the Joint Review Panel, as an expert witness on behalf of an environmental organization opposed to the DGR targeteed at Kincardine, Ontario more than a decade ago, was focused on cumulative effects or impacts. So I refer you to my previous testimony.

Re: Cumulative Effects or Impacts —considering the burdens that a community like Grassy Narrows Indigenous Nation already suffers, does WLON (Wabigoon Lake Ojibway Nation) have no such burdens! That seems be very unlikely.

NWMO admits on page 59 that "The NWMO is entirely funded by the nuclear industry." (p.59.) This has made for a very biased IPD Summary. The nuclear power industry is in direct control. This is not right. There is no objectivity or neutrality. The nuclear power industry has an agenda, and NWMO has delivered.

The NWMO IPD Summary states: "Subject to the outcome of the IA process, the Project lands will be transferred from the provincial Crown and become privately held by the NWMO. They will not be classified as federal lands."

Well isn't that convenient? I assume NWMO shields the industry from liability then? And the federal government too? But these are the very folks who created this highly radioactive waste problem in the first place, while seeking filthy profits.

On p.79/92 on the PDF counter, NWMO states:

The Project will not result in changes to the natural, biophysical, or human environment in provinces or territories outside of Ontario. This will be confirmed through future modelling.

But hat if the DGR leaks massively? Wouldn't this eventually contamination Lake of the Woods, Minnesota, for example? And what about transporting 44,500 irradiated nuclear fuel packages through the Great Lakes watershed, whether by truck, train, or boat? Doesn't that many rolls of the dice risk radioactive contamination of the Great Lakes, as due to accidental, or intentional, breaching of one or more transport packages?

Re: the word "accidental," can they be called accidents, when NWMO is willing to roll the dice 44,500 times? The same with potential "accidents" at the DGR itself. Aren't these calculated

risks, or calculated gambles? NWMO is willing to risk it. But the Canadian, American, and Indigenous public are the ones who would suffer the consequences of such gambles gone bad. The same can be said about the word “disposal” re: highly radioactive wastes at the DGR. Irradiated nuclear fuel cannot truly be “disposed” of. It could well leak from the DGR over time, and escape into the living environment.

On p. 79/92 on the PDF counter, NWMO states:

The Project is located more than 210 km from the Ontario–Manitoba border. The Project is not of a scale or location that it could result in changes to the environment outside of Canada. The Project is located more than 140 km from the Ontario–United States border.

What about real-world radioactive catastrophes that extended much further than 140 km, as by radioactive contaminants riding the winds, waters, waves, etc. great distances. Chornobyl and Fukushima come immediately to mind. As another example, the irradiated nuclear fuel package transports to the DGR could pass more closely than 50 miles from the U.S. border in certain routing circumstances. Yet this is the distance DOE has acknowledged as a region of impact, or region of influence, for “accidental” breaches of irradiated nuclear fuel shipping containers. Only by ignoring transporation risks and impacts can NWMO make this claim that no negative impacts could occur outside of Canada. But radioactive fallout from a large-scale disaster at the DGR, or eventual massive leakage, could well impact the U.S. — such as by waterborne flows of radioactive contaminants through Lake of the Woods, Minnesota, as discussed above.

On p.80/92 on the PDF counter, NWMO states:

22. POTENTIAL EFFECTS ON ANISHINAABE PEOPLE OF WABIGOON LAKE OJIBWAY NATION AND OTHER INDIGENOUS GROUPS IDENTIFIED IN SECTION 4.3

What about all those Indigenous Nations and groups that have been arbitrarily excluded?!

For example, Ojibwe Nationsl in Minnesota, and beyond — White Earth, Leech Lake, and Red Lake, etc., in Minnesota alone. What about the Sioux in the Dakotas and beyond — as at Standing Rock, Pine Ridge, Rosebud, etc.?

In Table 22-1, by the word <seepage>, do you mean <leakage>, such as radioactive leakage? It is not clear what NWMO means by the word seepage.

At Section 23, NWMO states:

23. ESTIMATE OF GREENHOUSE GAS EMISSIONS

Canada's nuclear power plants have provided **clean**, **reliable**, and **low-carbon energy** for decades. However, used nuclear fuel remains radioactive for a very long time and requires careful, permanent management.

How can NWMO refer to nuclear power as "clean," when it generates vast amounts of hazardous and deadly highly radioactive waste, for one thing?

How can NWMO refer to nuclear power as "reliable," when the CANDU design requires intensive repairs, often requiring very long periods of down time?

Re: "low-carbon energy," what about the forevermore requirement of managing forever deadly and hazardous highly radioactive wastes? What about the carbon footprint of that forever management?

Re: NWMO's claims of "net-zero emissions" through nuclear power…

What about other emissions besides GHGs? Radioactivity and toxic chemicals, for example?

And what about the forever GHG and other global warming emissions due to the need to manage forever deadly and hazardous irradiated nuclear fuel? Even "low carbon" multiplied by infinity equals infinity!

NWMO admits:

The Project will emit GHGs throughout all phases, including direct and indirect emissions from various sources like mobile fleets, heating plants, backup generators, blasting, land clearing, electricity consumption, and used nuclear fuel transport.

Yes, that is true. Given the forever management required for irradiated nuclear fuel, can nuclear power be considered "low-carbon" or "net-zero emissions"?

On p.90/92 on the PDF counter, NWMO states:

Reconciliation with Indigenous Peoples

Through highly radioactive waste dumping on/in/near their lands and waters? Through transporting 44,500 irradiated nuclear fuel packages throug their communities?

Last but not least, we agree with We the Nuclear Free North, that the highest level environmental, safety, and other reviews should be required re: NWMO's DGR scheme. After all, we are talking about vast amounts of highly radioactive waste!

Thank you for considering our comments.