

Transportation Planning: Indigenous Dialogue

NWMO-REP-06310-0202

February 2020

Maawandoon Inc

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Maawandoon Inc.

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ABSTRACT

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Abstract

In 2019, the NWMO commissioned Maawandoon Inc to lead Indigenous Dialogue session to support NWMO's transportation planning for the long-term care of Canada's used nuclear fuel. This research built upon and complemented public attitude research carried out in 2017 and 2018. The research methodology consisted of 7 Indigenous dialogue sessions and attendance at 3 Indigenous Annual General Assemblies (AGA)/meetings with dialogue components.

The objectives of this work were to:

- Enhance NWMO's understanding of elements of a socially acceptable transportation plan;
- Provide input into the development of a draft transportation planning framework document; and
- Understand Indigenous perspectives to support the development of engagement strategies and activities related to transportation planning and implementation.

The **NWMO Indigenous Dialogue Report** presents findings from the focus groups and group dialogue.

These research findings as well as ongoing conversations with communities involved in the siting process and others that are interested, will be used to develop the NWMO's draft transportation planning framework for the APM process.

Transportation planning: Indigenous Dialogue Sessions



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Draft Final Report
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Transportation Dialogue & Public Attitude Research: Indigenous

EGM-16-2019

February 2020

Maawandoon Inc.

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ABSTRACT

TITLE: Transportation Dialogue and Public Attitude Research: Indigenous
Report#: EGM-16-2019
Author(s): Darren Harper, President & CEO
Company: Maawandoon Inc. *"Bringing People Together"*
Date: February 2020

In July 2019, the NWMO commissioned Maawandoon Inc to support the NWMO's Public Attitude Research transportation planning and develop the understanding of citizens and Indigenous communities as they relate to the development of a socially responsive transportation framework. Activities included 7 Indigenous dialogue sessions and 3 Indigenous Annual General Assemblies (AGA) throughout Ontario in major cities and First Nation Communities.

The objectives and common goals of the 2019 Transportation Planning Dialogue Sessions were to:

1. Preparation, facilitation and documentation of up to 8 transportation-focused discussions,
2. Facilitating one workshop with Indigenous Engagement Responders,
3. Research to support and enhance NWMO's understanding of transportation-related issues and questions,
4. Attendance and documentation of transportation related comments at up to four (4) Indigenous 2019 events where NWMO typically has a presence,
5. Reporting on the activities and findings at these focused discussions, workshops and Indigenous events that further supports the research being initiated,
6. Preparation of a report and summarizing the findings of the aforementioned activities.

The NWMO Public Attitude Research Report presents findings from the dialogue sessions.

These research findings and facilitated dialogue sessions with Indigenous Communities and Groups involved, will be used to support the development of the transportation framework throughout the siting process and APM process.





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1.0 Background, Objectives and Methodology

1.1 Background

Adaptive Phased Management is Canada's plan for the long-term management of used nuclear fuel which requires containment and isolation of used nuclear fuel in a central repository. It also requires used fuel to be transported from 7 interim storage facilities to the repository site.

In 2010, the NWMO launched a siting process to identify a willing host for the Adaptive Phased Management facility. Originally, 22 communities expressed interest in learning about the project and entered the siting process. Through an iterative screening process, work in 2019 focused activities on 5 of these communities and the surrounding area including Indigenous communities and neighboring municipalities. Between November 2019 and January 2020, the study areas were subsequently narrowed to two (2) potential areas as part of the advancement of Canada's plan. The Township of Ignace in Northwestern Ontario and the Community of South Bruce will continue to be considered potential host areas of the project.¹

It is expected that a preferred site will be selected by 2023; however, the transportation of used nuclear fuel, from interim storage sites where the fuel is currently stored to this site, will not commence until or about before 2040. Although the transportation of used nuclear fuel will not begin for many years, it is an integral part of Adaptive Phased Management. Indigenous communities exploring their interest in this project, and those who may be affected should the community and area proceed in the siting process, are beginning to ask questions about the transportation of used nuclear fuel, including its safety and how transportation planning decisions will be made.

1.2 APM Transportation

The NWMO is responsible for establishing safe, secure and socially acceptable plans for transporting used nuclear fuel from the current interim storage sites to the used fuel repository.

As part of the process of selecting a site, transportation routes must be identified or have the potential to be developed. Transportation planning and evaluations must fully address regulatory requirements for safely transporting used nuclear fuel through different provinces. From a technical perspective, used nuclear fuel can be transported safely and securely with radiological safety assured through the use of robust transportation packages.

¹ NEWS RELEASE: The NWMO advances Canada's plan for safe, long-term management of used nuclear fuel: siting process continues to two areas. <https://www.nwmo.ca/en/More-information/News-and-Activities/2019/11/19/00/02/The-NWMO-advances-Canadas-plan-for-safe-long-term-management-of-used-nuclear-fuel>



In addition to technical requirements, social and community well-being are important considerations in identifying transportation routes. Therefore, the NWMO will need to demonstrate the safety and security of any transportation system to regulatory authorities and citizens, including Indigenous communities, before transportation to the repository can begin. Transportation is an important focus of public engagement, leading to a better understanding of societal considerations.

In the period 2019 to 2023, the NWMO continues:

- ⇒ Undertake transportation logistics studies and risk assessments;
- ⇒ Consider road and rail transport for a variety of used fuel transportation package designs;
- ⇒ Seek Canadian Nuclear Safety Commission design approval certificates for road and rail transport packages as appropriate;
- ⇒ Continue ongoing dialogue in municipalities, and First Nation and Métis communities, and with municipal associations and Indigenous organizations, regarding ways to communicate about transportation plans. We will engage with communities that may be on a transportation corridor for used nuclear fuel;
- ⇒ Conduct dialogue and use public attitude research to explore public understanding, questions and concerns;
- ⇒ Develop a Transportation Planning Framework based on input received, and share a draft for public dialogue, refinement, and confirmation; and
- ⇒ Continue review of experience and best practices with transportation of hazardous materials, including transportation of nuclear waste in Canada and internationally, to identify lessons that apply to Adaptive Phased Management.

1.3 Dialogue Objectives

In 2017, the NWMO initiated Public Attitude Research (PAR) and Dialogue work based on a discussion document prepared by the NWMO. The goal of this research was to understand the basic requirements the public believes should be addressed in the NWMO's transportation plan, objectives and values the public believes should inform the NWMO's transportation plan and concerns and questions about the dimension of Canada's plan. The discussion document can be found on NWMO's website: <https://www.nwmo.ca/en/A-Safe-Approach/Transportation/Transportation-Planning>

Public attitude research reports related to transportation can be searched on the NWMO website: <https://www.nwmo.ca/en/Reports>.

This public attitude research program has complemented NWMO's ongoing dialogue with communities involved in the siting process to learn about and explore the project, including transportation. This dialogue is expected to continue and broaden over the coming years and as we seek to identify a preferred



site with a willing host by 2023. NWMO has long-standing relationships and engagement programs in these communities, both non-Indigenous and Indigenous as part of this complementary program.

To complement the Public Attitude Research and NWMO's ongoing engagement, NWMO commissioned work to further understand perspectives of citizens and Indigenous communities as they relate to the development of a socially responsive transportation planning framework.

The objectives of this work were to:

1. Enhance NWMO's understanding of elements of a socially acceptable transportation plan;
2. Provide input into the development of a draft transportation planning framework document; and
3. Understand Indigenous perspectives to support the development of engagement strategies and activities related to transportation planning and implementation.

The focus of the work was to work closely with NWMO's Indigenous Engagement team and Transportation Engagement Manager to provide input from Indigenous communities and organizations in order to inform the development of a draft Transportation Planning Framework, which will be shared broadly with the public in 2020 and support ongoing dialogue with Indigenous communities related to transportation planning.

The 2019 work associated included hosting dialogue sessions with individuals from specific communities, groups and organizations in order to seek perspectives on values, principles and objectives associated with transportation planning and elements of a transportation planning framework. Elements of this framework included: objectives; guiding principles; process requirements (who needs to be involved, decision-making steps); planning considerations/ criteria/ questions which need to be answered.

1.4 Methodology

The research methodology consisted of 7 Indigenous dialogue sessions and 3 Indigenous Annual General Assemblies (AGA) with dialogue throughout each day. For all dialogue sessions, Maawandoon collaborated with the NWMO Indigenous Senior Engagement Advisor who has existing relationships with Indigenous groups and communities to schedule the events

The dialogue sessions were designed to identify people's values and perspectives as they related to key elements of NWMO's transportation program. The topics covered during these sessions, at a very high level, were similar to the areas of interest covered by Public Attitude Research, also carried out in 2019. Specifically, those areas of interest were:

- ⇒ broad societal and environmental challenges facing Canada;
- ⇒ environmental pros and cons of nuclear power;
- ⇒ knowledge and awareness of nuclear waste and its management;



-
- ⇒ Canada's plan for the long-term management of Canada's used nuclear fuel;
 - ⇒ perceived challenges and opportunities of transportation planning for used nuclear fuel;
 - ⇒ identification of key points (i.e., factors, considerations) to address in used fuel transportation planning;
 - ⇒ feedback on potential principles and objectives to guide transportation planning;
 - ⇒ opinion on whether NWMO is on the right track when it comes to transportation planning;
 - ⇒ advice for moving forward with transportation planning; and identification of lingering questions.

A total of approximately 80+ people participated in the focus groups and or the dialogue sessions. These groups differed from those traditionally recruited for public attitude research sessions. Existing relationships with those Indigenous communities and groups were strategically notified of a workshop and focus group that outlined a presentation and videos of the proposed transportation overview. The Maawandoon facilitator used a semi-structured guide to address the study issues. In addition, handouts and two videos were provided to participants with factual information on the issues discussed.



2.0 Detailed Findings

2.1 Introduction with the Indigenous Communities and Groups

The dialogue sessions began with an introduction of the team facilitating the workshop and NWMO staff present for the meeting. Before any of the dialogue information was to commence, an elder from the indigenous community or group would provide a customary opening prayer as per the traditions. This was followed up by an opening of the ground rules and expectations of information to be gathered and the importance of an open dialogue where questions and comments were encouraged.

Throughout the dialogue, participants were provided with factual information at key stages of the dialogue session and given time to reflect before moving on with the facilitated guided dialogue. This approach further provided topics of conversation to be covered throughout and raising points of interests for transportation planning was done with both hard copies of information and videos.

2.2 Knowledge and Awareness of Ontario's Electricity Production

The focus groups began with an unaided discussion of participants' knowledge and awareness of Ontario's use of nuclear power and of used nuclear fuel (e.g., Approximately how much of Ontario's power comes from nuclear energy? What is done with the used fuel?). Maawandoon utilized the "**Grid Watch**" app for demonstration purposes to showcase the use of Ontario's power in real time and how the power is generated, exported and the tonnage of CO₂'s consumed within the given hour. Then participants were provided with a description of NWMO (e.g., non-profit organization established in 2002 by Canada's nuclear electricity producers). This was followed by a short video describing APM, Canada's plan. Participants were invited to share their thoughts, including questions they had about Canada's plan. A full discussion ensued, in which participants were invited to share their thoughts, including questions they had about Canada's plan.

Out of the dialogue sessions facilitated, we found that at a high-level, most participants had a general understanding of the following:

- ⇒ People held a clear understanding of the nuclear services in Canada
 - Participants in one dialogue session had a very clear understanding of the nuclear services and proposed nuclear sites as a result of previous employment. One member commented that "nuclear energy is a safe form of energy compared to other power supplies, and if you were to pick up a pellet, you would only be dealing with 50 millisevers of nuclear waste, which is not enough to harm you".



-
- ⇒ Some participants had visited the Bruce and Pickering sites and spoke highly of the safety and security
 - During a presentation in a dialogue session a gentleman commented that “the overall safety of nuclear transportation was highly developed versus other forms of fuel transportation”.
 - ⇒ Lack of understanding between low-level waste and nuclear fuel waste
 - In one session, comments from dialogue participants on what spent nuclear fuel is versus the tools used on site to clean facilities or decommissioned sites that have an in-situ process. Overall, this was a general conversation with dialogue participants.
 - ⇒ Concerns about bringing in other nuclear waste from other countries
 - One comment from a participant was “once the repository is built, this will be open to other areas in Canada and to other countries to use”.
 - ⇒ Some participants thought of nuclear power as green energy and environmentally safe
 - One participant who had knowledge of nuclear energy commented that “nuclear energy is a green form of power and there are no emissions as a result of the steam coming out of the stacks”.
 - ⇒ Indigenous Participants were clear that Indigenous Rights, Human Rights and Treaties need to be respected
 - Amongst the Indigenous participation, the understanding and respect for treaty and aboriginal rights stretches across a historic view of the project and potential adverse impacts on rights when transporting the spent fuel. Indigenous groups, communities and people typically require criteria for evaluating impacts to their rights, interests and possibility of effects to land and resources.

Most participants understood the project of developing a repository for the spent nuclear fuel. Others thought that Northern Ontario was an already established location for the project and didn't understand the time (e.g., 25-year plan) to develop and conclude the location. Some were confused as to why the used nuclear fuel would be shipped north if the used fuel already located in southern Ontario. Overall, it's important to note that most Indigenous communities and groups were fully aware and had knowledge about nuclear energy and used nuclear fuel and that this section of the dialogue allowed for questions about current practices and planning to be clarified. This was in part due to the continued relationship that the Indigenous Relations team has with the Indigenous communities, groups and or organizations.



2.3 Transportation Planning as Part of APM

As background information participants were provided with a presentation of what NWMO (e.g., non-profit organization established in 2002 by Canada's nuclear electricity producers), has heard to date. Included in the presentation was maps of the Interim storage facilities, preliminary assessment areas and a general overview of the packaging and testing of the used fuel bundles, storage and anticipated hazards. Participants were invited to share their initial thoughts about Canada's plan before proceeding to a discussion of transportation.

Following this discussion, the facilitator provided additional fact-based information, including a brief overview of scope (i.e., potential modes and number of shipments over 40 years), followed by a short video that covered regulation and package design, testing and certification.

Participant comments to APM were very consistent with those of past Public Attitude Research participants. Common perspectives held about APM included:

- + pleased with the generous time horizon for the development and implementation of the plan;
- + amazed with the Consulting and Engagement aspect of this NWMO project, it has never been done before for other projects in the area;
- + most concluded, that given the amount of consumption of nuclear power, we have to have a safe and adaptable plan to store and/or dispose of the nuclear waste;
- + many Northwestern Ontario participants were more concerned about the transportation infrastructure inadequacies that could create hazards
- + unanimous agreement that the plan must include extensive and continued safety training and upgrading particularly in Emergency Response as many rural communities there is volunteer teams with high turnover rates

In a couple of the groups, there was participants that had deeper understandings of where nuclear energy came from: "You get nuclear power from pulling things (uranium) out of the ground to create the power, it's kind of like they are putting it back where it came from, in the ground."

One gentleman stood up and talked about how safe Nuclear is compared to lots of other power supplies. "if you were to pick up a pellet you would only be dealing with 50 millisevers of nuclear waste, which is not enough to harm you. It's not as dangerous as people like to believe. it's less dangerous than handling battery acid. People think they are going to build this depository and everyone's going to suffer ill effects, you will not! In the medical field, they use isotopes those are way more dangerous to handle than the nuclear fuel waste that has already been cooling for over 10 years."



Many questions about APM posed by participants centered on safety, maintaining the policies and procedures when Governments change, international comparisons (i.e., what “other countries are doing”), and flexibility to change as science and technology evolves. Some questioned the ability and viability of reusing the nuclear waste.

2.4 Initial Thoughts on Transportation

At the outset of a couple of our sessions the mood of the participants was negative, fearful and oppositional, “[Dump it in your own backyard!](#)” was echoed by many. Most participants assumed that the mode of transportation would be by road or rail, with one group suggesting that it be shipped over the Great Lakes. Many people questioned the training and resources available for Emergency Response and accident/spill cleanup.

The Participants were provided a power point presentation covering the history of NWMO, its’ mandate and the process to develop the Transportation Plan, Safety and Security of the packaging of the used nuclear fuel and Deep Repository timelines. Participants were provided time to express their opinions and add input in to the plan, with that most of the participants gained comfort and withdrew their initial opposition. The majority of the participants were surprised by the level of engagement and the economic opportunities, however there was still concerns regarding the highway and rail infrastructure along with training and protection of workers and residents.

All of the participants in our group session (Indigenous or Metis people) felt strongly that the NWMO must have continual information sessions for First Nations and Metis communities along transportation routes; consultation will be required. They also advised that [NWMO would be wise to incorporate in the “Seven Generations Teachings” and to seek guidance from the Traditional Knowledge Keepers in the affected areas.](#) Future sessions should include information on the potential impacts to wildlife along the transportation corridor and surrounding the repository site location.

2.5 Elements to Include in the NWMO’s Transportation Framework

Sections of the guided dialogue included key aspects of the implementing the APM from 2019 – 2023. This included the reference of discussion when transportation was going to commence and finish (e.g. approximately 40 years starting in or around 2040 and how many shipments per week & year), that further included what transportation method would be considered as part of the overall discussion.

Through these discussions, some key questions were asked from the participants for further contemplation. We found that:

- ⇒ Knowledge of the proposed nuclear waste sites and transportation
- ⇒ Some overall views of safety and other forms of fuel transportation
- ⇒ Various and divided opinions of transportation methods (what is best?)



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- ⇒ Concerns about the transportation safety and emergency response planning
 - ⇒ Repository site and development and the route design need to be enhanced, stronger with high standards

In some cases, where appropriate, the facilitator probed discussion using a list of core elements being contemplated in the transportation plan/framework:

- ⇒ **Safety** as the overarching principle
- ⇒ **Security** of facilities, infrastructure, workers and public
- ⇒ Meeting or exceeding regulatory requirement
- ⇒ Respect for **Indigenous rights and treaties**
- ⇒ Informing the plan with the best science and knowledge available now and into the future
- ⇒ Protection of the **Environment**
- ⇒ Ensuring inclusivity in the decision-making process
- ⇒ Maintaining proper oversight and accountability
- ⇒ Ensuring the project is financially sustainable

The outcomes of these discussions resulted in a number of key areas of interest that offer a framework of elements, which are relatively consistent with other PAR projects from the past:

- **Indigenous Communities/Groups Top Priorities**
- **Logistics and Transportation**
- **Used Nuclear Fuel**
- **Environment**
- **Safety/Security**
- **Emergency Response**
- **Storage & Others**

A summary of each transportation element is noted below and summarized. Many participants offered similar responses and were frank in their opinions, concerns, issues and considerations for the NWMO's APM until site selection is determined. Top priorities identified across all dialogue sessions are as follows:

- ⇒ Environment and protecting the environment was the highest priority overall - the protection of water is important and needs to be taken seriously
- ⇒ Understanding emergency response planning and safety in the event of an accident: what does this look like for local communities and how will this be deployed
- ⇒ Understanding NWMO's approach to Indigenous engagement: Treaties, Indigenous Rights and Human Rights need to be respected throughout the process



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- ⇒ Understanding any long-term risk of transporting used nuclear fuel: need more background for local communities (e.g., radiation exposure)
 - ⇒ Understanding transportation modes and or routes: should be planned and any municipalities where there is transportation should notify the Indigenous community and or group of its presence (public information)
 - ⇒ Understanding training and certification requirements of transportation drivers: should be specialized and offer strict training
 - ⇒ Understanding how transportation is considered in the site selection process.

From this list of priorities, Maawandoon has identified the following elements for inclusion/consideration in the NWMO's transportation planning that would address the questions, concerns and priorities identified.

- ⇒ Environmental protection plans – specifically, bodies of water need to be protected
- ⇒ Emergency response plan and safety – including resources and details of training, testing and follow-up
- ⇒ Demonstration that Treaties, Indigenous Rights and Human Rights are being respected throughout the process, include Elders, Youth and Traditional Knowledge Keepers
- ⇒ Security & Safety – plans must meet or exceed Regulations and for communities where and when there is transportation, prior notification of key individuals is needed
- ⇒ Training and certification of transportation operators must be mandatory and must include regular reaffirmation and upgrading
- ⇒ Consideration of escorted and tracked transports during travel for safety and security
- ⇒ Consideration of transportation timing (e.g., limited hours of transportation ; and/or during daylight hours)
- ⇒ Transportation should be part of the rationale for site selection (e.g., closer proximity to existing Nuclear Storage facilities)
- ⇒ Consideration of terrorism and sabotage as potential threats
- ⇒ Non-partisan policies and procedures to protect the Canadian Nuclear waste industry from changes in Government and to ensure that the waste stored is of Canadian content only

Participants raised other points for NWMO's consideration:

- + Transparency, monitoring and accountability
- + Continual research on alternative methods of containing, reducing or re-using nuclear waste
- + Infrastructure upgrades
- + Education and awareness campaigns
- + Effective communication protocol
- + Capacity Building for communities along route



3.0 Conclusions and Emerging Themes

The outreach concluded similar results from NWMO's earlier public attitudes research in a number of areas. Specifically, areas of alignment between the Indigenous dialogue and public attitude research are as follows:

- + Safety is without a doubt the most significant factor, this includes the environment, workers and the general population, Economics and Public Policy all considered.
- + NWMO's transportation plan must meet or exceed regulations
- + The environment and our citizens must be protected
- + Treaties, Indigenous Rights and Human Rights must be honoured within the plan
- + Education and awareness reduces fears and misunderstanding – early and ongoing dialogue is an effective way of achieving this
- + Comprehensive emergency response planning is a high priority

3.1 A Note on Northern Perspectives

In many areas of Northwestern Ontario highway travel is the only mode of travel, with that in mind the many participants felt that the most effective travel would be via road as they expressed that *“with rail travel there would still be a need to get the nuclear waste to the railway via truck and the fewer times the bundles are transferred between the modes of transportation the better it is and the less likely for accidents”*.

Concerns do remain in the fact that much of the Northern Highways are single lane and road closures due to inclement weather and accidents can completely isolate large regions and cause significant delays in emergency responses and impact daily operations for communities.

Indigenous participants had some of their concerns alleviated after viewing the NWMO video on transportation packaging design, testing and certification. They appreciated the apparent strength of the fuel containers and multiple layers shielding the solid nuclear fuel pellets. Some of the participants requested extended and additional testing, for example one person pointed out that *“if the transportation of the container was trapped in the middle of a forest fire, this could burn hotter and recovery could take way longer than the existing fire tests are demonstrating”*

Overall, Indigenous participants were open minded and had common sense about the 20+ year plan for transporting spent nuclear fuel. In closing out the dialogue sessions, one comment stood out, *“contain it properly and get social acceptance”*.



3.2 Summary of Questions Received During Dialogue Sessions

Below is a table of common themes from the Indigenous dialogue sessions and comments, questions and opinions for NWMO to consider.

| | |
|--|--|
| <p>Knowledge of Ontario's electricity production and Nuclear power</p> | <p>Do you know where Ontario's electricity comes from?</p> <ul style="list-style-type: none"> ⇒ Hydro ⇒ Down South ⇒ Sarnia ⇒ Thunder Bay ⇒ Power Plants ⇒ Generators ⇒ Dams ⇒ Wind ⇒ Solar ⇒ Gas ⇒ Pipelines ⇒ Nuclear <p>How much of it do you imagine comes from Nuclear?</p> <ul style="list-style-type: none"> ⇒ 50% <p>Used Nuclear Fuel is a by-product of electricity generation by Nuclear Power Plants. What do you think happens with the used Nuclear Fuel? Where does it go?</p> <ul style="list-style-type: none"> ⇒ Down South in Nuclear Plants ⇒ Storage Containers ⇒ It gets reused ⇒ In the ground/in rocks ⇒ In cylinders <p>What are some of the Key things the Plan must include or address for it to be acceptable to you? In other words, what does the NWMO need to make sure of?</p> <ul style="list-style-type: none"> ⇒ Bodies of Water need to be protected * ⇒ Informing people about the Project * ⇒ Safety * ⇒ Respecting Indigenous Rights, Human Rights and Treaties * ⇒ Transports have a separate transportation highway * ⇒ Strict Operator Training * ⇒ Escorts following Fuel Bundles * ⇒ Prior Notification * ⇒ Protecting Operators and Workers * ⇒ Long Term Risk * ⇒ Limited hours for transportation and transporting during the daylight |
|--|--|



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| | <ul style="list-style-type: none"> ⇒ Accountability ⇒ Drilling Impacts from Bore Holes ⇒ Space requirements ⇒ Plans to evolve as technology and terrorist evolve |
| Logistics and Transportation | <ul style="list-style-type: none"> ⇒ What kind of Transportation will be used to move the Fuel Bundles? ⇒ Transports should be using roads that are designed exclusively for Transport Trucks ⇒ There should be strict training for truck drivers ⇒ Is transportation of used nuclear waste safe? ⇒ They need to limit the hours truck drivers can drive, preferably during daylight ⇒ How will the nuclear waste be transported and when will they start transportation? ⇒ How big is a container? ⇒ Have you picked a location for this facility? ⇒ This is frightening stuff; will we be able to identify trucks carrying nuclear waste? ⇒ How big are the labels on the trucks? ⇒ What are the statistics from around the world on the transportation of nuclear waste? ⇒ They have already transported nuclear waste in Canada? ⇒ How big is the package being shipped? And how many shipments per year for us? ⇒ We should know that because it's close to Ignace site? ⇒ There's stuff already in storage, how many years to get that all moved? ⇒ Trucks are labelled, how big is the label? |
| Spent Fuel | <ul style="list-style-type: none"> ⇒ What is nuclear waste? – Youth Question ⇒ What is nuclear fuel made of? ⇒ How old is the oldest package of used fuel? ⇒ How old is the nuclear waste that is currently stored above ground? ⇒ What is the oldest package of waste right now? And with the existing age and the 2040 date will those old packages have to be re-capsuled? |
| Environment | <ul style="list-style-type: none"> ⇒ How does building this facility affect the water in the area and water supplies? ⇒ How would this facility and transportation affect wildlife? ⇒ What about earthquakes or ground tremors ⇒ The Great Lakes are the biggest source of Fresh water. We need to make sure they are protected. |
| Safety and Security | <ul style="list-style-type: none"> ⇒ What about Terrorism? Bombs? Shootings? Theft? |



| | |
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| | <ul style="list-style-type: none"> ⇒ We would like to see a test where the containers are engulfed in flames for 2 days mimicking a forest fire? ⇒ What security protocols are put into place for transportation of this nuclear waste? What kind of security arrangements does NWMO have? ⇒ What about due diligence? The fire dept are considered Level 1. Will the containers need to have convoys following them to mitigate any problems? ⇒ In municipalities, are they alerting us when it's being transported? ⇒ Risk benefits assessment? You actually need to have a tanker to go along with escorts to mitigate any problems. ⇒ Do you know what the container/package upper limits are? ⇒ The packages have been tested to withstand all types of accidents, in my opinion these are unrealistic tests; the fire test only tests for 800 degrees Celsius, certain situations could arise where the temperatures exceed that and for the drop tests that is an object dropped onto a non-moving surface, how does this mimic a collision with two moving objects? |
| Emergency Response | <ul style="list-style-type: none"> ⇒ Will there be fully trained first responders on board with the containers when they are being transported? ⇒ How do we ensure first responders are prepared for these situations? ⇒ Do emergency response teams have the equipment to deal with these kinds of accidents? Will they have cranes readily available to pick the containers up if need be? ⇒ 1st responders training, are they on board with the packages as they move? ⇒ Isn't this frightening? Our 1st responders are not equipped for this, many are volunteer, there's lots of turnover ⇒ Parts of the highway system there's nothing for 100's of kms if there's disaster it takes a long time to reach them, and there's no water to put out fires, no spill kits ⇒ Emergency response plan - does that include having the things actually needed to deal with an emergency? |
| Storage and other comments | <ul style="list-style-type: none"> ⇒ How big is a bore hole? ⇒ Are they running out of space down In Southern Ontario? Is that why they need to bring the waste up North? ⇒ Where is the United States storing their waste? Didn't they start storing it without telling anyone? ⇒ Does it have to be stored in a rock? ⇒ NWMO needs to implement the 7 Generation Teachings ⇒ They need to make sure that if another Government in the future doesn't start making changes to regulations like not accepting used nuclear waste from other countries ⇒ Have you shortlisted any sites? My concern is water supply and being close to water? At 500 meters in the borehole by Ignace there is insignificant amounts |



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| | <p>of water and it is believed to be 1 million years old, the DGR would be well below the water table and any drinkable water</p> <ul style="list-style-type: none">⇒ If it's safe in the above ground storage facilities, then why move it?⇒ Are you going to allow other countries to store used nuclear waste in our facilities?⇒ In Blind River, are they currently storing nuclear waste from Russia? why?⇒ Are they accepted plutonium from Russia at this facility?⇒ What about the repository near Kenora? Whiteshell? And it was built in 1979 I believe, when will we see the results of that experiment?⇒ I thought Pinawa was a Federal regulated agency, does that mean that the Deep Geological Repository will be open to other areas in Canada and to other Countries?⇒ Will there be a long-term risk assessment of nuclear waste getting into or near the water supply?⇒ Can a site be picked that is closer to the existing storage of used nuclear fuel in southern Ontario⇒ Storage of the used fuel that is underground, what is the long-term risk of that fuel getting into the water supply or close to a water supply⇒ Will the Repository site be marked as "hands-off" for future development?⇒ How did the sites get identified? |
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Miigwech!



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