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**Presentation from
The Inverhuron Committee**

In the Matter of

Ontario Power Generation Inc.

OPG's Deep Geological Repository (DGR)
Project for Low and Intermediate Level
Radioactive Waste

Joint Review Panel

September 2014

**Présentation de
The Inverhuron Committee**

In the Matter of

Ontario Power Generation Inc.

Installation de stockage de déchets radioactifs à
faible et moyenne activité dans des couches
géologiques profondes

Commission d'examen conjoint

septembre 2014



The Inverhuron Committee Inc.

Marti McFadzean, Chair

Volunteer organization formed in October 2012 to oppose Ontario Power Generation's proposed Deep Geologic Repository (DGR) for low and intermediate level waste at the Bruce Nuclear site.

Inverhuron – closest community, some residents trace their roots back to the 1850s.

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Introduction

1. Applicability of recent incidents at the Waste Isolation Pilot Plant (WIPP) to the safety case for the DGR project
2. Relative risk analysis of alternative means of carrying out the project
3. Implications of revisions to the reference waste inventory.

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Introduction *cont.*

- Concerns stated last fall:
 - the lack of a history of best practices;
 - containing radioactivity for over 100,000 years;
 - the possibility of a leak;
 - claim of willing host community;
 - scope of the project.
- Over the past twelve months new information and events have confirmed that our original concerns have been proven legitimate.

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Introduction *cont.*

- Objectivity of the regulator?
- Illustrated by CNSC's defense of project and the ongoing exchanges with Dr. Frank Greening - attacking his credentials while acknowledging that many of his calculations are correct.

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1. WIPP: History of Best Practices

- The fire and radiation leak at the WIPP has confirmed that no history of success can be cited.
- WIPP operated for 15 years, compared to 100,000 years needed for Bruce repository.
- No plan at the moment to open WIPP.

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2.1 Alternate Methods

- Independent Experts hired to study three alternatives:
 - Status quo
 - Repackaged storage above ground
 - Deep Geologic Repository.

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2.1 Alternate Methods *cont.*

- A shorter-term solution allows for further advancement in technology.
- DGR as long-term solution - Waste cannot be retrieved in the future.
- Drs Peter Ottensmeyer and Gordon Edwards presented future advancements in technology at 2013 Hearing.

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2.2 Alternate Sites

- Independent Experts' analysis of granite rock site questioned.
- A specific site was not analysed as was requested.

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2.2 Alternate Sites *cont.*

- If you accept the Independent Experts' preference for the Bruce site and its limestone geology, the Nuclear Waste Management adaptive-phase approach for a site for the storage of high level waste should immediately eliminate all sites in upper Ontario along the Canadian Shield.

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2.2 Alternate Sites *cont.*

- In the end, will the Bruce site be the location for all levels of nuclear waste?

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2.2 Alternate Sites *cont.*

- Geological study by Dr. Chris Smart of Western University of the Amberley/Alpena escarpment in Kincardine/Amberley area under Lake Huron.



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2.2 Alternate Sites *cont.*

- The search for a repository for low and intermediate level waste must be combined with the search for a solution to the high level waste in a concerted, linked effort by both the provincial and federal governments.

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2.3 Tolerance for Risk

- Independent Experts' Report based on 2013 Hearing transcripts
- Did not do a literature search
- Did not consult local community.

- For the record, we have zero tolerance for risk.

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2.3 Tolerance for Risk *cont.*

- Schools: zero tolerance for bullying;
- Governments & employers: zero tolerance for drug use;
- Our community: zero tolerance for radiation poisoning.

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2.3 Tolerance for Risk *cont.*

- Risk vs. Safety



• Photo: "Bluepinto" by Nakedicarus

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2.3 Tolerance for Risk *cont.*

- Independent Experts' Report maligned opponents for not giving suggestions or positive recommendations.
- Suggestions at 2013 Hearing
 - Dr. Rhodes: higher ground
 - Dr. Edwards: rolling stewardship
 - Dr. Ottensmeyer: latest technology
 - Dr. Duinker: change in modelling for mitigation.

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2.3 Tolerance for Risk *cont.*

- Independent Experts' Report based on 2013 Hearing transcripts
- Did not consult local community
- For the record, we have zero tolerance for risk.

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2.3 Tolerance for Risk *cont.*

- The Inverhuron Committee's June 2013 suggestion to OPG:

Remove intermediate level waste from your plan and re-group it with the high level waste.

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3.1 Decommissioning Waste

- OPG has confirmed that the repository will be expanded to hold an additional 200,000 cubic metres of intermediate level waste.
- Is this an example of the old "bait-and-switch" model of sales?

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3.1 Decommissioning Waste *cont.*

- Would the residents of the Municipality of Kincardine be accepting of this “new” project?

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3.1 Decommissioning Waste *cont.*

- Did they understand the evolution of this project when 4,066 of them approved of a permanent solution for the Western Waste Management Facility?
- Did they understand that it would mean the burial of 400,000 cubic metres of intermediate and low level waste?

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3.1 Decommissioning Waste *cont.*

- If Mayor Kraemer, at the time of his election, thought that the original project required a referendum (never held), then what about an official voice for a project double the size?

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3.1 Decommissioning Waste *cont.*

- Should the decommissioning waste / intermediate level waste be considered in this proposal?

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Conclusion

- Nuclear waste is a social, ethical, political and legal issue.
- The Environmental Assessment is one piece of a very large puzzle.



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Conclusion *cont.*

Social

- The “willing host” is an essential component of the acceptance or rejection of the project to construct a repository.
- The only statement that we can make with certainty is that 4,066 residents from the Municipality of Kincardine agreed with a general telephone question on the need for “a permanent solution to the Western Waste Management Facility.”

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Conclusion cont.

Ethical

- Nuclear waste is a problem for generations up to 100,000 years
- One small community cannot individually decide on this issue in the same way that it could not decide on other larger ethical issues.

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Conclusion cont.

Political

- Lack of knowledge of project by politicians:
 - "it's a federal decision";
 - "it is not in my portfolio" (*from the Federal Minister of the Environment*);
 - "OPG is a provincial body under the jurisdiction of the Ontario Government";
 - "at least it is not nuclear waste";
 - "it is only mops and brooms".

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Conclusion *cont.*

Political

- Opposition from both sides of the border

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Conclusion *cont.*

Political

- Brian Masse, MP Windsor West News conference, May 27, 2014 to announce Motion M-515



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Conclusion cont.

Motion M-515

- *That, in the opinion of the House, the government should defer further review and any approval of the Deep Geologic Repository Project environmental assessment for low and intermediate level radioactive waste at the Bruce Nuclear Site until such time as:*
 - *(a) an independent technical body is established, and has completed*
 - *(i) an evaluation of the state of technical and scientific knowledge with respect to deep geological repositories for nuclear waste and*
 - *(ii) an assessment as to whether Canada's regulatory regime is sufficiently robust to adequately support an environmental assessment and licensing review of proposals for deep geologic repositories;*
 - *(b) there is a full evaluation of alternatives to the proposed deep geologic repository, including alternative sites, alternative designs and alternative methods; and*
 - *(c) residents, stakeholders and rights holders in the Great Lakes Basin - including in potential host communities, neighbouring communities, transportation corridor communities, and the broader Great Lakes community are engaged in a direct and active dialogue facilitated by a trusted third party.*

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Conclusion cont.

Petition to the Government of Canada calling on the government to support Motion M-515 to defer further review of OPG's DGR proposal until the conditions outlined in the motion are met.

Petition to the Government of Canada

We, the undersigned, citizens of Canada, draw the attention of the Government of Canada to the following:

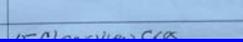
Whereas: Ontario Power Generation is proposing to construct and build a Deep Geologic Repository (DGR) on the shores of Lake Huron threatening the drinking water of an estimated 40 million Canadians and Americans and the estimated 7 billion dollar commercial and recreational fishing industry

Whereas: Municipal, regional, state/provincial and national and international bodies, organizations and politicians in Canada and the United States have cited concerns about this proposal

Whereas: There must be a full evaluation of alternatives to the proposed deep geologic repository, including alternative sites, alternative designs and alternative methods of this proposal

Whereas: Residents, stakeholders and rights holders in the Great Lakes Basin, including in potential host communities, neighbouring communities, transportation corridor communities, and the broader Great Lakes community, must be engaged in a direct and active dialogue facilitated by a trusted third party

Therefore, we call on the Government of Canada to support Motion M-515, MP Brian Masse's private member's motion to defer further review of Ontario Power Generation's proposed Deep Geological Repository until the conditions outlined in the motion are met.

Name (Please Print)	Signature	Address	Email
			

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Conclusion *cont.*

Political

- Opposition from both sides of the border

In the United States

- Michigan, Ohio, Illinois, New York, Pennsylvania, Wisconsin, Indiana, Minnesota

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Conclusion *cont.*

Legal

- Justice Russell's recent ruling to halt the Darlington new build.



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Conclusion *cont.*

1. Applicability of recent incidents at the Waste Isolation Pilot Plant (WIPP) to the safety case for the DGR project
2. Relative risk analysis of alternative means of carrying out the project
3. Implications of revisions to the reference waste inventory.

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Conclusion *cont.*

- “this issue is one that gives such potential impacts on the moral freedom and equality for existing and future generations;
- policies should reflect decision-making standards beyond those of economic efficiency and technical safety.
- They should reflect the imperatives of social justice and democratic legitimacy now and in the future.”

Deliberative Democracy for the Future: The Case of Nuclear Waste Management in Canada by Genevieve Fuji Johnson

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Many of us are third, fourth & fifth generation residents of Inverhuron. We need to preserve it for future generations.



The Inverhuron Committee

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