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**Written Closing Remarks from  
The Provincial Council of  
Women of Ontario**

**Observations écrites finales de  
The Provincial Council of  
Women of Ontario**

In the Matter of

À l'égard de

**Ontario Power Generation Inc.**

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

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

Joint Review Panel

Commission d'examen conjoint

**October 2014**

**Octobre 2014**



## THE PROVINCIAL COUNCIL OF WOMEN OF ONTARIO (PCWO)

Established 1923

The OPG Deep Geologic Repository Joint Review Panel

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October 9th, 2014

### **Final Comments on OPG 's Licencing Application for Preparation and Construction of a Deep Geologic Repository for Low and Intermediate non-Fuel Nuclear Wastes**

To: Dr. Swanson, and Panel Members Dr. Muecke and Dr. Archibald

By: Gracia Janes PCWO VP Environment

#### Introduction

In our final remarks regarding Ontario Power Generation's application for licences for site preparation and construction of its deep geologic repository for low and intermediate nuclear waste, the Provincial Council of Women of Ontario (PCWO) cannot stress enough the need for the use of the precautionary principle in determining the safety of this first –of-a –kind undertaking, especially in light of its proposed site near the shores of Lake Huron, a Great Lake relied upon by millions of people on both sides of the Canadian/US border for a multitude of purposes, and the significant problems experienced at other supposedly sound and safe sites internationally.

#### **Some Comparisons with the Seaborn Panel Hearings**

As participants in this federal environmental assessment process and in the extensive Seaborn hearings of 1998, we can't help, despite the obvious differences in the types of nuclear waste and the processes, but be reminded of the outcome of the Seaborn hearing regarding the public's "*grave unease*" with the safety of AECL's concept for a deep geologic repository for high level nuclear fuel waste in the Precambrian Shield and most importantly the need for societal acceptance.

We are dubious of the latter requirement in this case as it seems acceptance is solely present in the corporate entity of the Town of Kincardine and its Council, through a dubious agreement several years ago; the workers at the Bruce and supporting unions; local businesses; and many, but not definitely not all, local residents.

In contrast, many groups and individuals, local residents and others on both sides of the Canada/US border, felt the scientific safety case for OPG's application to prepare and construct a deep geologic repository for low and intermediate radioactive waste, with an additional proposal to add nuclear

decommissioning and refurbishment wastes , such as the very large alpha- contaminated radioactive steam generators from the Bruce, is simply not there.

Scientific expertise was very important to the Seaborn Panel who had the advice of some of its own Panel members who were scientists , its Scientific Review Group, various federal Ministries, the Canadian Academy of Engineers Royal Society of Canada, and many in the public realm . This seems in direct contrast to OPG's application at the Bruce , where there is almost complete control of scientific expertise by the proponent OPG, as well as CNSC and NWMO. We note as one of many examples, Dr. Thompson's oft-cited "*confidence*" in their science , and her response to Alex Monem on the last day of the hearings that "*We will rely on in-house expertise.*" (rather than outside independent expertise). In contrast, just before its hearing started, the Seaborn Panel required a change of the AECL containment model for high-level nuclear fuel waste, which had been developed over many months at great expense, and was considered by the proponents to be very safe. And, in its final decision, the Panel made a qualified conclusion that the repository "*could and should*" be doable, but also called for the correction of many scientific flaws as drawn to the Panel's attention by the above mentioned advisors , public and panelists ; a whole new round of consultations; and the creation of an arms-length advisory group with some non-nuclear scientists and others.

In reading the Seaborn transcripts over many months , it was clear that the interveners, experts and panel members closely reflected the input they heard and did not just rely on AECL and Ontario Hydro expertise to make their final decision . For instance , the public who intervened were allowed to ask questions of all presenters , and when PCWO asked the representative of the Canadian Radiation Protection Association if he was aware that an important AECL research paper was written by a post graduate student and was not peer reviewed, and further, that Canada's radiation standard was definitely not up to 1991 international standards , and the respondent answered in the negative , Chair Seaborn informed him that he had a few months to correct his brief.

### **Some Unanswered Questions**

PCWO finds the most vexing unanswered questions regarding OPG's proposal, relate to OPG, CNSC and NWMO's, stubborn conviction that, no matter how valid the queries and concerns and the excellent contrary evidence from independent experts, the Panel EIs and the public , that :

- their "*in-house*" experts are all that are needed when determining important issues such as the critical decisions needed , for instance, to *stop*, the project if it is found unsafe.
- the "*observational method*" i.e in laymen's terms, look for any problems after you start digging, and as you go along , is a safe way to go about this potentially very dangerous process.
- it's okay to make a rather suspect agreement with a Town of Kincardine and not include the broader public living nearby.
- it's good science to base a geo-scientific verification plan on one core sample at the same depth and location as the planned repository . And, as noted in EIS12-5111, "*Geo-mechanical characterization of the actual repository site conditions is thus extremely limited.*"

- it's good science to ignore the Panel EIS -05-164 statement that *"the Upper Ordovician seal-rock facies have been breached in the past and that hot fluids have moved through parts of the stratigraphic section within the RSA in the past, possibly along the as yet unmapped deep-rooted faults and fractures which cut across the Ordovician base the geo-scientific verification plan safety case ."*
- it's up to OPG to decide if it will stop its project if it finds such faults and fractures as it follows the "Observational approach , and that this can be based on a *"business case"*
- it's okay to change your plans in mid hearing to add a considerable amount of nuclear refurbishment wastes.
- It's morally right to jettison the waste into uncertain underground geologic formations and seal them off forever and for future generations to deal with, rather than practice *"rolling stewardship"* as recommended by Dr. Gordon Edwards .

### Conclusion

Despite all of our qualms PCWO respectfully submits that although there are distinct differences between the this EA process and the Seaborn hearing , there is a possibility of a similar result. This is because you have a huge amount of good information in hand; as a knowledgeable Panel your questions have been in –depth and perceptive; the RFI backgrounders have noted serious flaws in the proponent's case ; interveners with solid background evidence have pointed to numerous inconsistencies, mistakes and self-serving suppositions; and , like the Seaborn hearing, the broader public concerns are very real and should be recognized as valid. This latter crucial point is in direct contrast to Dr. Thompson's portrayal of the whole project as a *"business risk."* i.e. On September 17<sup>th</sup> in a response to intervener Sandy Greer re what would be the trigger to *"just stop the project?"* Dr. Thompson answered *" If during that period the geo-scientific verification information would reveal that the site is unsuitable for long term waste disposal the CNSC would not be able to issue an order to stop work, for example , because it would not be an immediate threat to health , safety , or environment , given the context of the licence. It would be OPG's business risk."*

PCWO urges this Panel to refrain from approving OPGs request for permits to prepare and build its planned deep geologic low and intermediate nuclear repository , on the basis that the public and the environment- in the present and the very long term future- must be protected to the best of society's ability , and the alternatives of keeping the low and intermediate level nuclear wastes on their current sites, bolstering protections and exploring alternatives such as *"rolling stewardship"* are preferable .