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Written Submission from

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In the Matter of

Ontario Power Generation Inc.

Proposed Environmental Impact Statement for OPG's Deep Geological Repository (DGR) Project for Low and Intermediate Level Waste

Joint Review Panel

September 16 to October 12, 2013

Mémoire de

Norm Lachance

À l'égard de

Ontario Power Generation Inc.

Étude proposée pour l'énoncé des incidences environnementales pour l'Installation de stockage de déchets radioactifs à faible et moyenne activité dans des couches géologiques profondes

Commission d'examen conjoint

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Canada

Joint Review Panel

Thank you for the opportunity to provide an intervention to this DGR panel.

"To bury or not to bury"….that is the question. My name is Norm Lachance and I am a retiree of OPG's Nuclear Waste Management Division (NWMD). I also have 25 years of nuclear plant operation with an extensive knowledge of radiation protection/programs and training. I have received certification from the National Registry of Radiation Protection Technologists in the USA. A number of my working years were specifically devoted to the Transportation of Radioactive Material and most recently I was in the role of Training Superintendent of the Bruce Power Restart Project. I have helped at and acted in a role of staff for a number of DGR mobile exhibits such as the Port Elgin Pumpkinfest prior to my retirement. The vast majority of people that I encountered were in support of the DGR. Those with a nuclear background had a comfort level with it and those less knowledgeable seemed to be more comfortable once we were able to address their concerns. Personally, I say it is best to bury the Low and Intermediate Level Waste produced by the nuclear plants in a Deep Geological Repository (DGR). I would not support the burial of any waste in a "nuclear dump". I say so for reason of stewardship, related costs and ultimate safety.

Stewardship

Simply expressed….we owe the appropriate long term storage of nuclear waste to the future generations. If we are to define ourselves as a functional society, our generation should not reap the benefits of cheap nuclear power without a plan to address the long term storage of the waste produced from the nuclear power plants. It would be very irresponsible for us to expect future generations to deal with this waste. The best science of today suggests that storing this waste in a DGR is the best method of long term storage and I support this suggestion rather than download the problem and wait for the solution of the future.

Costs

I see two areas of costs in mind. One is in the methods of current storage of nuclear waste and the other is in the transportation of the waste.

The amount of nuclear waste produced from our plants has significantly reduced since the earlier days of nuclear power. Even so, it is just not cost effective to continue the construction of new storage buildings and in ground containers. In addition to new construction is the continuous maintenance and refurbishments to the current facilities storing this waste with no end in sight. These costs would not be such a huge concern if it weren't that they have to be kept to a nuclear standard.

From a Transportation of Dangerous Goods (TDG) perspective, this is nuclear waste class 7 material. It is identified by the trefoil symbol and only on such material should this symbol be found. The

transportation of such material is regulated by the TDG and the Canadian Nuclear Safety Commission (CNSC) and because of the potential hazard that it presents to the public, the transportation of it is very expensive. A DGR will be more or less the same cost regardless of where it is in the province of Ontario. However the costs associated with the transportation of the nuclear waste would add significant costs to the project if the DGR were to be anywhere other than the currently approved location in the Municipality of Kincardine. These costs are associated with the "design in depth" concept which means that containers to transport the nuclear waste need to be designed to mitigate the hazard associated with the material. In other words, the more dangerous the material is, the more depth is required in the design and consequently the more it will cost.

Safety.

With regards to safety I concern myself with worker safety and public safety? Employees are trained on how to best handle nuclear waste while it is in the current temporary storage. However and though minimal, employee safety is jeopardized whenever performing their duties. A DGR minimizes this exposure making it safer for employees.

As for public safety (as well as that of employees), I concern myself with how a natural disaster such as the 2011 Goderich Ontario hurricane 70 kilometres from the BNPD Site or any form of terrorism would jeopardize the current nuclear waste safety envelopes. Before dismissing this concern, it may be worthy to ponder the thought of what the current storage site would look like if it had been in London England during the Second World War. All of the above disastrous situations would not be a concern if the nuclear waste were stored in a DGR.

As previously mentioned, costs would increase should the nuclear waste need to be transported. So would the public safety risks should the DGR be located somewhere other than where it is currently stored.

Conclusion

My background in radiation protection also personally gives me a feeling of comfort. Without knowing the specific radiation exposure data of the waste to be buried, I am quite sure that the public exposure to the natural radiation from the earth around the DGR would be more than from the DGR itself. At 1 km below the surface, I am quite certain that the DGR will have no impact on Lake Huron or the residents of the area.

If "to bury or not to bury" nuclear waste is still the question, then I say let's put faith in our scientists, the scientists of the world, and let's bury it in a DGR. The status quo is no longer acceptable!!

Norm Lachance