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Mr. Ron Hallman  
President  
Canadian Environmental Assessment Agency  
160 Elgin St, 22nd Floor  
Ottawa ON K1A 0H3

Dear Mr. Hallman,

*Rm*

Per our conversation of December 8, the disposal of nuclear waste is a topic of much discussion amongst the international community. In general, there are two options for a country to consider: near surface disposal and deep geological disposal. The term “near surface disposal” encompasses a wide range of options, including disposal in engineered structures on the ground, disposal in simple earthen trenches a few metres deep, disposal in engineered concrete vaults, and disposal in rock caverns several tens of metres below the earth’s surface. In contrast, deep geological disposal is generally used to describe disposal at depths of hundreds of metres.

The table below provides a list of countries and the type of disposal facility they are either using or considering. For low- and intermediate-level radioactive waste (L&ILW), most countries already have near surface disposal facilities, or are siting these facilities. Some countries, such as Switzerland, Germany and Canada, are exploring deep geological repositories (DGRs), which are regarded internationally as the best approach for long term repositories. Repositories for L&ILW are separate from proposed repositories for high-level waste. There are no countries considering combining all types of waste into a single DGR because of the different properties and required handling of the waste types.

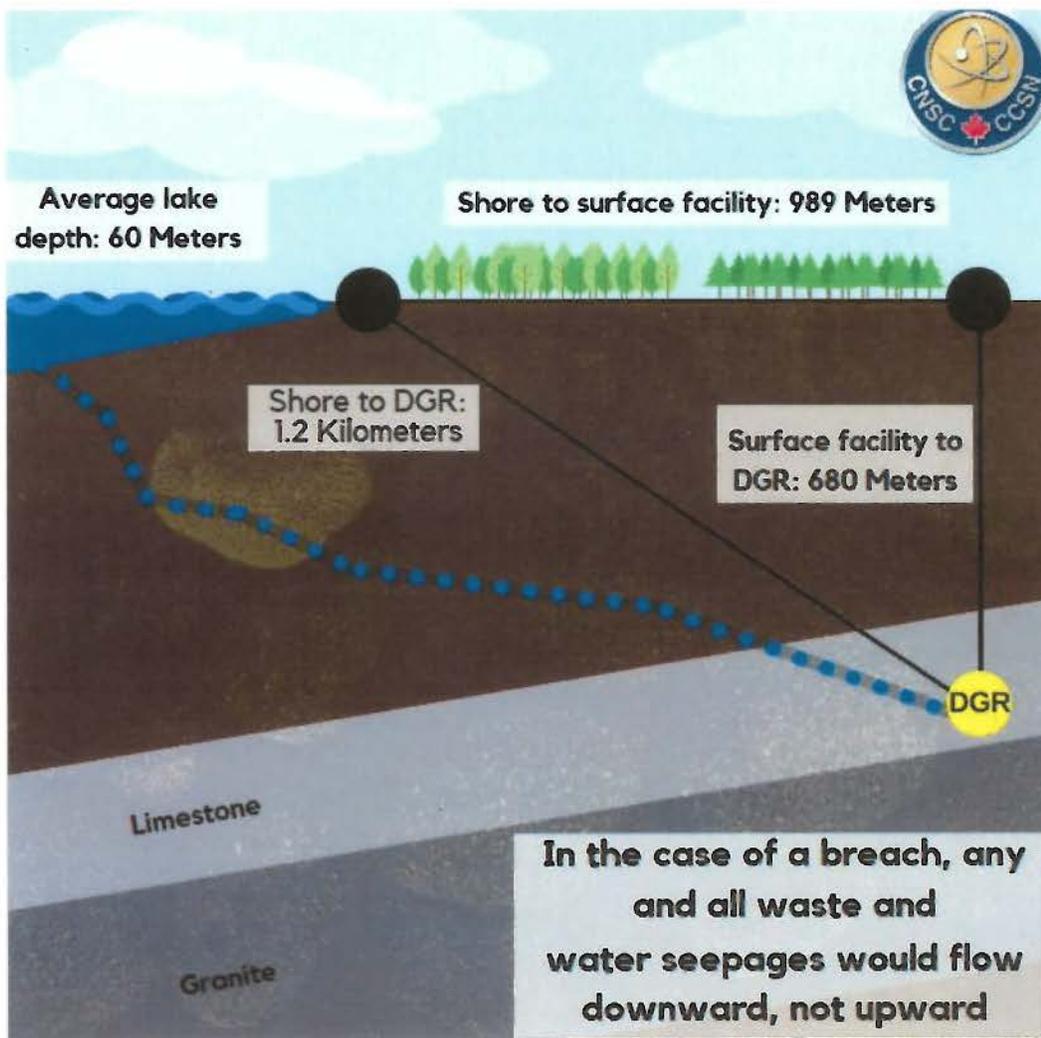
Country	Method of disposal for L&ILW	Method of disposal for high-level waste (used fuel)
France	Near surface	DGR
Australia	Near surface	DGR
Belgium	Near surface	DGR
Finland	Near surface	DGR
Sweden	Near surface	DGR
Korea	Near surface	DGR
USA	Near surface	DGR
Russia	Near surface	DGR
Switzerland	DGR	DGR*
Germany	DGR	DGR*
Canada	DGR	DGR*

\* Separate DGR from the L&ILW facility

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The proposed location of Ontario Power Generation’s (OPG) DGR is approximately 1 km from Lake Huron. This proximity to Lake Huron was a consideration the CNSC took very seriously in its analysis. CNSC staff have conducted independent research into the topic. The selection of repository locations near large bodies of water is not an uncommon practice – near surface disposal facilities located in Sweden, Finland and Korea are also immediately adjacent to large water bodies. OPG’s proposed DGR design is at a depth greater than 600 m from the surface, which is several hundreds of metres deeper than the deepest part of Lake Huron.

The figure below depicts a non-scientifically or geologically credible direct interaction between the proposed DGR and Lake Huron. While it cannot be overstated that a geological failure as illustrated in this figure has not happened over the last 250 million years (and dozens of ice ages), the result would be lake water seeping downward into the DGR. Waste would not seep upward from the DGR into the lake. This scenario is hard to imagine when looking at a surface map and seeing the location of the DGR from a ‘map perspective’. The proposed depth of the DGR is extremely protective of the Great Lakes system.



Please feel free to contact me should you have any other questions on this matter.

Yours sincerely,

<Original signed by>

Michael Binder