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**To:** Conditions (CEAA/ACEE)

**Subject:** Voicing My Opposition To The DGR (Deep Geological Repository) Nuclear Waste Abandonment

## **Voicing My Opposition To The DGR (Deep Geological Repository) Nuclear Waste Abandonment**

### **3 Reasons To Be Concerned About "Abandonment"**

#### **RADIOACTIVE WASTE BESIDE LAKE HURON? SOUNDS CRAZY RIGHT?**

William Fyfe, a retired University of Western Ontario professor who is an international consultant on nuclear waste, is among those who have expressed concern about the project. *"You do not put nuclear waste near things like the Great Lakes or the great rivers in case there's a leakage that you haven't expected."*<sup>5</sup>

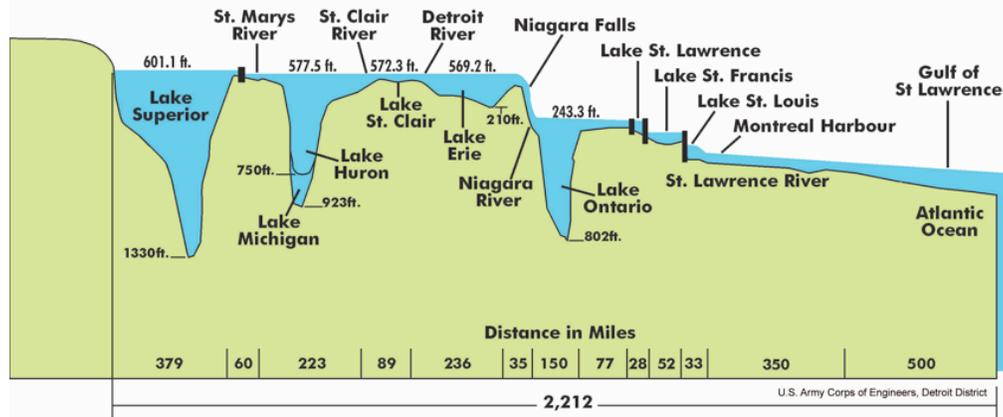
*"It is universally acknowledged that nuclear waste must be kept away from water circulating through the environment of living things, since water is seen as the main vehicle for eventual dissolution and dissemination of radiotoxic pollutants."*<sup>6</sup>

The nuclear wastes to be buried near the lake include highly radioactive and chemically hazardous material.

OPG documents state that *"Most of the waste packages are not designed to be long-lived. As they corrode or are damaged by rock fall, the wastes are exposed and the radioactivity can be released."* And further states *"People living on or near the site could be exposed to the contaminants..."*<sup>7</sup>

Great Lakes communities in Canada and the United States obtaining drinking water from the Great Lakes should be deeply concerned about OPG's plan to bury radioactive nuclear waste beneath the Bruce Nuclear site on the shores of Lake Huron. Degradation of the site over time or a serious accident or incident at the underground Nuclear Waste Dump site would affect Lake Huron and all interconnected waters of the Great Lakes (see map below).

## Great Lakes System Profile



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## **FAILED TRACK RECORD OF DEEP GEOLOGIC REPOSITORIES (DGR)** **NOTE: WIPP HAD A LEAK AND IS SHUT DOWN WHILE THEY TRY AND DEAL WITH THE NUCLEAR ACCIDENT**

There are only three DGR's on the entire planet (WIPP in the US and ASSE II and Morsleben in Germany) and all have leaked.

The US Department of Energy (DOE) constructed a DGR in New Mexico (USA) called the Waste Isolation Pilot Project (WIPP). It is the only operating DGR in existence in the world. WIPP houses nuclear wastes from the US defence program. OPG's evidence to the Joint Review Panel is that WIPP is similar to OPG's proposed DGR because it is at depths of several hundreds of metres, founded in sedimentary rock, and developed for large volumes of low-and intermediate-level radioactive waste. OPG evidence indicates that the basis for long-term safety at WIPP (i.e., repository depth, low permeability natural barriers) is similar to the long-term safety basis for OPG's proposed DGR. Despite assurances by the DOE that WIPP would never leak, 15 years into its operation, a radiation leak occurred on February 14, 2014 resulting in 22 workers receiving internal radiation contamination. WIPP is presently closed. <sup>11</sup>

The ASSE II DGR in Germany is located in a salt mine. ASSE II was used to house low and intermediate nuclear waste. After 20 years of operation, this DGR starting leaking, despite assurances that this would never happen. 12,000 litres of water per day are leaking into this DGR that was supposed to be completely dry and non-corrosive. The scientists have no idea where the water is coming from, or how to stop it. The groundwater at ASSE II is contaminated. The Asse II DGR is in danger of collapsing and remains an unmitigated disaster to this day.<sup>12</sup>

The Morsleben DGR in Germany is also located in a salt mine. This DGR has experienced problems and is in danger of collapse.

## **BURIED RADIOACTIVE WASTE IS FOREVER TOXIC**

Some intermediate level nuclear waste remains toxic for 100,000 years. OPG defines intermediate level nuclear waste to include resins, filters and irradiated components from within the nuclear reactors themselves. **Some of the intermediate level nuclear waste is almost as toxic and radioactive as the high level radioactive nuclear spent fuel** from inside nuclear reactors.

*"There is no limitation as to the toxicity, longevity or diversity of radioactive materials to be included in the ill-defined categories of low and intermediate level waste that will be buried."*

Thank You for your attention on this matter and if you have any questions or need additional information please let me know.

Kevin Szprychel

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