



Great Lakes Forum – Jill Taylor, President, SOS Great Lakes

Introduction

SOS Great Lakes, is an organization of Canadian and American Citizens dedicated to keeping the burial of radioactive nuclear waste out of the Great Lakes Basin. We are not anti- nuclear, but are deeply opposed to the reckless plan of the Ontario Power Generation Inc. (OPG) to construct a deep geological repository for up to 400,000 cubic meters of Low and Intermediate Level nuclear waste on the shore of Lake Huron at the Bruce Nuclear Plant. This project, if approved, could begin before 2020. I will refer to this as “the plan”.

The burial of this vast quantity of radioactive nuclear waste would result in a continuous risk of radiotoxic poisoning of Lake Huron, the Great Lakes and the St. Lawrence River System. The OPG Plan should concern this Forum for at least 3 reasons:

1. **These Radionuclides Are Persistently Destructive:** the extremely destructive character of this waste, the persistence, likely migration, and the long residence of its contaminant properties, (stated by OPG to last over 100,000 years);
2. **The Plan Violated the Canadian Environmental Assessment Act (CEAA):** OPG and the Federal Joint Review Panel (JRP) failed to follow the governing legislation in multiple ways on several occasions; to date, the Minister responsible for CEAA has failed to take appropriate action in response to these violations;
3. **Deeply Flawed Science:** both OPG and the JRP failed to rely on evidence based science. What they did use was demonstrably unreliable.

1. Persistently Destructive

You have said in your Progress Report that you are interested in chemicals that are persistent: no substance is more persistent than the radioactive intermediate and high level waste, in combination with our waters. “Over 100,000 years”, exceeds the definition of ‘persistence’, and cannot be ignored.

Since the DGR idea was hatched in the 1990s, international experts have consistently derided the science and lack of common sense of a DGR on the Great Lakes, saying that the DGR will NOT be able to contain nuclear waste and prevent the contamination of the ecosystem, including the Lakes and the people around it. Yet, the Ontario and Canadian Governments continue to allow consideration of this plan long past its best before date, if it ever had one.

2. Multiple Violations of the Canadian Environmental Assessment Act (CEAA)

In a direct affront to the Canadian Environmental Assessment Act, OPG refused to consider alternate sites in addition to the sedimentary geology of the near shore environment of the Bruce. The Minister asked OPG for further and better information about alternate sites. OPG rephrased the Minister’s question and said it would provide a response to its rephrasing by December 2016.

Citizens groups such as ours have advised the Minister of multiple other violations of CEAA. To our knowledge, the “alternate site violation” is the only one to which the Minister has responded publically.

OPG has stated that not only will the DGR leak, but that their storm water management system to protect the ground water and Lake Huron in an unplanned event is totally insufficient to handle extreme weather events. In another affront to logic, OPG refused to consider that climate change, including already dramatic patterns of Great Lakes weather and precipitation, would increase the risks to public safety or the environment as they might act on the DGR, or have an effect on plans for emergency management of accidents and malfunctions during the 300 years of institutional control.

During the Joint Review Panel hearings in the fall of 2013, thousands of pages of testimony were read into the record by citizens, politicians from Canada and the US,

scientists of all stripe, including nuclear specialists and former OPG employees, economists, geologists, conservation advocates, sociologists, doctors and indigenous people that refuted the logic and safety of the proposal for the deep underground dump on the shore of Lake Huron in sedimentary rock.

Evidence of improper adjudication and presentation of evidence, financial coercion by the proponent and the denial of international obligations were rampant.

We have filed an application for Judicial Review (JR) against the Canadian Government, CNSC and OPG, to challenge JRP's acceptance of the OPG Nuclear Waste Dump Plan based primarily on these multiple violations. CEEA requires the Minister to either reject or accept the plan. If she rejects it, a Judicial Review Application is moot. If she accepts, the JR is converted automatically to a JR of her decision.

We believe there are ample environmental protection public policy reasons why this matter should never have to go to court.

3. Deeply Flawed Science

Every day, new evidence emerges exposing even more faults in the OPG DGR plan, and its woefully inadequate 'science'. OPG has acknowledged that the physical structure and storage vaults of the planned repository will disintegrate after construction, and that radionuclides will eventually leak into the water and environment. They say it is not if, but when the repository will leak.

The gravity of this and similar statements in their EIS persists despite tragic failures elsewhere. This year, there was a collapse of a tunnel during an underground scientific pre- test of similar DGR in sedimentary geology in France during which a worker was killed and others injured. In 2014, in Carlsbad New Mexico the DGR that was the design model for the DGR 1 here at the Bruce Plan was closed following radioactive releases into the environment and underground fires that threatened the lives of workers and the public.

Internationally, the concept of DGRs is in trouble! Multiple other accidents and closures of DGRs challenge the idea that a DGR will ever be built that is successful.

Conclusion

The regulator, CNSC, has demonstrated bias and protection of industry in its monitoring and categorization of radionuclide emissions into the environment, including into the water of the Great Lakes. Relying on reductive methods they are not diligent in reporting of contamination that in other jurisdictions would be unacceptable. It is imperative that an un-biased party acknowledge the danger of radionuclide contamination and list radionuclides as a chemical of mutual concern. This action must have an effect on the CNSC and the nuclear industry to provide transparent monitoring and emergency planning. It must influence the development review of nuclear projects as a binational concern, and provide sustainable and precautionary protective measures for all sites on the Great Lakes.

We also ask the Canadian and U.S. Governments to work together to stop the OPG plan, - a plan that was, and is, ill-conceived and does not follow the obligations of binational environmental protection about which you so proudly speak in this Forum.

By doing so, you will join:

- More than 154 municipalities that have signed petitions against the plan,
- The Great Lakes and St. Lawrence Mayors who have thrice passed resolutions opposing the plan, and
- 98 percent of all Canadians and Americans who responded to a letter writing campaign initiated by the Canadian Government in Sept 2015 to express their views about the decision to build this deeply flawed nuclear waste repository.

We urge the Executive Committee of the Great Lakes Forum to list radionuclides as a chemical of mutual concern and immediately act to oppose the OPG's plan for a Nuclear Waste Dump at Kincardine.