NUCLEAR WASTE WATCH ACTION DÉCHETS NUCLÉAIRES

Honourable Catherine McKenna
Minister of Environment and Climate Change
House of Commons
Ottawa ON K1A 0A6

Dear Minister McKenna,

Re: **Decision on Joint Review Panel Recommendations with respect to Ontario Power Generation's Proposed Deep Geologic Repository for Radioactive Wastes, Municipality of Kincardine, Ontario**

Congratulations on your new role as Minister of the Environment. We are encouraged by your appointment and by the emphasis the Prime Minister placed in your Mandate letter on regaining public trust in the environmental assessment process, and on ensuring that decisions are based on science, facts, and evidence, and serve the public's interest. These are matters of great concern to the millions who have considered and rejected a scheme by Ontario Power Generation (OPG) to bury nuclear waste beside Lake Huron.

In May 2015, a panel appointed by the former federal Minister of the Environment Peter Kent and the Canadian Nuclear Safety Commission in 2012 provided former Minister Leona Agluukaq with its final report on their review of Ontario Power Generation's proposed Deep Geologic Repository for Low and Intermediate Level Radioactive Wastes. The Joint Review Panel (JRP) recommended that the federal minister approve the proposed repository, despite the expert evidence they heard throughout the public hearings about numerous technical uncertainties, and in the face of large and growing public opposition. The JRP conclusions are flawed.

We are writing to you as the federal Minister of the Environment and Climate Change to ask that you reject the OPG proposal to bury radioactive wastes beside Lake Huron.

As outlined below, there are sufficient reasons to reject the project, based on a flawed assessment process and a flawed Joint Review Report, which ignored evidence on the record and relied on its own interpretation of material which was not on the record. These are inadmissible errors, made in support of an unacceptable project.

The previous government imposed strict timelines for environmental assessments, but extended the timeline for issuing a Statement of Decision on the proposed nuclear waste repository in Bruce County so that the deadline – December 2nd – would fall after the federal election. Now, new in your mandate and with the pressures of readying for the very important 21st session of the Conference of the Parties to the UN Framework Convention on Climate Change in Paris next month, it falls to you to render a decision on this controversial and high-risk project. However, CEAA S 54 (4) does provide for a further extension of the time limit, on your recommendation.

Project and Review Summary

In brief, Ontario Power Generation is proposing to construct a series of caverns 680 metres below-surface in a band of limestone, and to transfer into those caverns 200,000 cubic metres of nuclear waste. Some of these wastes – called "low level" radioactive wastes – do not require extra barriers to shield workers from radioactivity, although they are still hazardous. Other wastes, classified as "intermediate" wastes, are highly radioactive. Elements of these wastes will remain dangerously radioactive for hundreds of thousands of years, and some for even far longer than that.

At the end of a nine year review the proposed DGR project has too many unknowns. For example:

- Ontario Power Generation's characterization and inventory of the wastes remains incomplete.
- The rate at which gas will be generated by deteriorating metal waste containers is still unknown; this is important, because these gas pressures can cause fracturing that could speed the release of radionuclides out to the biosphere.
- The chemical stability of some wastes, such as ion exchange resins, is uncertain over time.
- Many of the "design" decisions have not yet been made, including important features like the seal for the vertical shafts that connect the underground repository to the environment.

However, many things that are known about the Project cause concern, such as:

- The only example Ontario Power Generation offered of a similar deep geologic repository for radioactive wastes, the Waste Isolation Pilot Plant in New Mexico, is no longer operating after an underground fire and loss of containment resulted in radioactive releases to the surface in 2014.
- Management of the wastes through placement in the proposed DGR will cost approximately four times more than above-ground options, with current cost estimates at over $2 billion; OPG's pattern of persistently underestimating costs for nuclear projects over the last several decades suggests that real costs are more likely to be in the $6 to $10 billion range.
- Ontario Power Generation's proposal (2011) is for 200,000 metres^3 but in August 2013 Ontario Power Generation acknowledged on the public record that they intend to double the amount of waste to be placed in the proposed DGR and will seek a licence amendment after they receive a project approval based on the original volume; the final use and size of the proposed DGR remain unknown.
- 179 municipalities representing more than 22 million people have passed resolutions opposing OPG's proposed waste repository
- the large and growing public opposition includes many elected representatives in the U.S.; for example, on November 5, 2015, six U.S. Senators and 26 U.S. Representatives, from a number of Great Lakes states wrote to Prime Minister Trudeau urging him to block the deep geological repository; on September 26, 2015 the Great Lakes Legislative Caucus, a nonpartisan group of state and provincial lawmakers from eight U.S. states (Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin) and two Canadian provinces (Ontario and Quebec) passed a resolution opposing the OPG proposed nuclear waste repository or any nuclear waste repository in the Great Lakes Basin.
- This project is an unacceptable risk to the world's largest fresh water supply: the Great Lakes.

During 33 days of hearings in 2013 and 2014 it became abundantly clear that Ontario Power Generation's proposal was still very much in flux. It also became apparent that the Canadian Nuclear Safety Commission

(CNSC) staff, who were attending the hearings daily, were operating as advocates rather than impartial assessors of Ontario Power Generation's incomplete proposal. CNSC staff repeatedly told the Review Panel that key decisions could be left until after an approval was issued by the Joint Review Panel; under this scenario the CNSC staff themselves would become the decision-makers.

The Joint Review Panel's 450 page report does a reasonable job of acknowledging the myriad issues raised through written submissions and hearing testimony by members of the public, independent experts, Saugeen Ojibway Nation, and the Panel's own experts. What is unreasonable is the Panel's complete dismissal of many of these issues, and the deferring of other issues to a future decision-maker. Simply leaving them unresolved – while recommending project approval – is unreasonable and concerning. In addition, the Panel report is flawed by internal contradictions and overly generalized statements which are not supported by the hearing record.

As the Joint Review Panel notes in the opening pages of its report, this Project is without precedent anywhere in the world. It is also an exercise in contradiction, as is the JRP report itself. For example:

- Ontario Power Generation argued that the repository is needed to remove the wastes from the surface and keep them "safe" from threats such as terror attacks or social collapse, yet Ontario Power Generation also contends that the wastes are safe at their present above-ground location, and continues to generate more and more of such wastes, including highly radioactive spent fuel which will have to remain on surface for decades due to heat and radiation levels.
- The Joint Review Panel contends that the proposed site was preferred above others primarily because it would avoid risks associated with further transportation, yet the wastes from the Darlington and Pickering generating stations continue to be transported long distances to the Western Waste Management Facility, adjacent to the proposed site of the repository.
- The Joint Review Panel recommends in their report that "OPG should minimize the volume of waste stored in the DGR" but in the same report states that doubling the volume of waste (with the addition of decommissioning waste) would not change project outcomes.
- The Joint Review Panel acknowledges that there are uncertainties related to many technical aspects of the project but asserts that these same aspects, in combination, provide confidence in the Project.

Conclusion

The evidence presented to the Joint Review Panel by expert consultants retained by the Review Panel, by independent scientists and engineers, and by other hearing participants establish that the project's proposed design and site geology is **uncertain**, the project is **unacceptable** to the public and the residents of the Great Lakes basin, the project is **unnecessary** for the management of the wastes, and **unaffordable** from a cost-benefit perspective.

The undersigned organizations urge you to issue a Decision Statement informing Ontario Power Generation that the environmental assessment of its proposal to bury nuclear waste beside Lake Huron has been rejected.

Respectfully submitted on November 18th, 2015 by the undersigned organizations:

Algoma Manitoulin Nuclear Awareness	Ontario
Algonquin Eco Watch	Ontario
Alliance for a Clean Environment	U.S.

Alliance to Halt Fermi 3	U.S.
Beyond Nuclear	U.S.
Blue Water Coalition Against Deep Geological Repositories	Ontario
Bruce Peninsula Environment Group (BPEG)	Ontario
Canadian Coalition for Nuclear Responsibility	Ontario
Canadian Environmental Law Association	Ontario
ChenangoDelawareOtsego Gas Drilling Opposition Group (CDOG)	U.S.
Christians for the Mountains	U.S.
Citizens Concerned About Nuclear Waste in Elliot Lake	U.S.
Citizens Environment Alliance of Southwestern Ontario	Ontario
Citizens for Alternatives to Chemical Contamination	U.S.
Citizens' Resistance at Fermi 2 (CRAFT)	U.S.
Citizens' Clearinghouse on Waste Management	Ontario
Citizens' Network on Waste Management	Ontario
Coalition for a Nuclear Free Great Lakes	U.S.
Committee for Future Generations	Canada
Concerned Citizens for Nuclear Safety	U.S.
Concerned Citizens of Hornepayne	Ontario
Concerned Citizens of Renfrew County	Ontario
Council for Public Health in Mining Communities	Canada
Don't Waste Michigan	U.S.
Durham Nuclear Awareness (DNA)	Ontario
Ecological Options Network, EON	U.S.
Fairmont, Minnesota Peace Group	U.S.
Grand River Environmental Network	Ontario
Great Lakes Environmental Alliance	U.S.
Greenpeace US	U.S.
Huron Environmental Activist League	U.S.
Huron Grey Bruce Citizens Committee on Nuclear Wastes	Ontario
les Artistes pour la Paix	Canada
Living Rivers	U.S.
Lone Tree Council	U.S.
Manitoulin Island Cycling Associates (MICA)	Ontario
Michigan Safe Energy Future - Shoreline Chapter (MSEF-SH)	U.S.
Michigan Stop The Nuclear Bombs Campaign	U.S.
National Council of Women of Canada	Ontario
Northwatch	Ontario
Nuclear Energy Information Service	U.S.
Nuclear Information and Resource Service (NIRS)	U.S.
Nuclear Resister	U.S.
Nukefree.org	U.S.
Nukewatch	U.S.
Oak Ridge Environmental Peace Alliance	U.S.
Ontario Clean Air Alliance	Ontario
Physicians for Global Survival	Ontario
Physicians for Social Responsibility	U.S.
Physicians for Social Responsibility - Kansas City	U.S.
Portsmouth/Piketon Residents for Environmental Safety & Security	U.S.
Provincial Council of Women of Ontario	Ontario

Public Citizen's Climate and Energy Program	U.S.
RadiationTruth.org	U.S.
Safe and Green Campaign	U.S.
Saginaw Home for Peace and Justice	U.S.
Save Our Saugeen Shores	Ontario
Save Our Sky Blue Waters	U.S.
Sierra Club US	U.S.
Sierra Club Canada Foundation	Ontario
Southampton Residents Association	Ontario
Stand Up/Save Lives Campaign	U.S.
The Inverhuron Committee	Ontario
Uranium Watch	U.S.
Watershed Sentinel Educational Society (WSES)	Canada
Women's International League for Peace and Freedom - Detroit	U.S.
ZeroWaste4ZeroBurning	Ontario