COMMENT ON NUCLEAR WASTE BURIAL PLAN BESIDE LAKE HURON: DEADLINE IS MARCH 6TH, 2017

In February 2016, the federal minister of Environment and Climate Change Catherine McKenna <u>directed Ontario Power Generation</u> to carry out additional studies to support OPGs controversial plan to bury radioactive wastes beside Lake Huron. It was at least the third time around the block for one of the studies - an assessment of alternate locations - after the requirement for an evaluation of alternatives having been included in the initial guidelines for the review, then the subject of information requests from the Joint Review Panel, and then <u>specific direction</u> from the Joint Review Panel to produce a study of alternate locations (a requirement that extended the hearing into 2014).

In December 2016 Ontario Power Generation filed their reply, and the eight reports were made available on January 3^{rd} on a public registry. The public has until March 6^{th} comment on the reports, and to give the Minister – through the Canadian Environmental Assessment Agency – advice on whether Ontario Power Generation has provided the information requested.

Written comments must be sent by March 6, 2017 by mail or email to:

Deep Geologic Repository Project
Project Manager
Canadian Environmental Assessment Agency
160 Elgin Street, 22nd Floor, Ottawa ON K1A 0H3
CEAA.DGR.Project-Projet.DGR.ACEE@ceaa-acee.gc.ca

The Agency will prepare a draft report containing its analysis of the additional information and the comments received. The public and Indigenous groups will be invited to review and comment on the Agency's report at a future date.

For additional information including links to Ontario Power Generation's "additional information" and analysis of the OPG reports visit www.bruce-nuclear-waste-burial.ca

Here's a quick take on OPG's "additional information"

- Ontario Power Generation did not provide the information the Minister requested; for example, they were to provide information on alternate locations using actual locations, but they provided very general descriptions of two large regions and no actual information!
- Ontario Power Generation misrepresented the findings of the public opinion poll they had commissioned
- Ontario Power Generation's "additional information" was similar to their earlier reports on the proposed deep geologic repository poorly referenced, overly generalized, and lacking supporting information

Background

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. In fact, intermediate waste is almost as radioactive as "high level waste" with similar radioactivity to used fuel or irradiated nuclear fuel waste. Elements of these wastes will remain dangerously radioactive for hundreds of thousands of years, and some for even far longer than that.

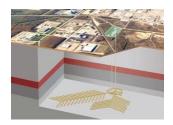
On May 6, 2015, a Joint Review Panel appointed by the federal Minister of the Environment and the Canadian Nuclear Safety Commission in 2012 provided the Minister with their final report on the review of Ontario Power Generation's proposed Deep Geologic Repository for Low and Intermediate Level Radioactive 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.

BACKGROUNDER: OPG PROPOSAL

Ontario Power Generation's Deep Geological Repository for Low and Intermediate Level Radioactive Waste Overview

Ontario Power Generation (OPG) is proposing to construct and operate a deep geologic repository at the Bruce Nuclear site, within the Municipality of Kincardine, Ontario. Low and intermediate level radioactive wastes produced from the continued operations of the nuclear generating stations at Bruce, Pickering and Darlington would be placed in the Deep Geological Repository (DGR) at an estimated depth of 680 metres below the surface and less than a kilometre from the eastern shore of Lake Huron.





The waste would consist of industrial items and used nuclear components (but not used fuel, according to statements to date by OPG) which is currently processed and stored at OPG's WWMF after being transported by truck from Pickering and Darlington to the WWMF, and by truck on-site from the Bruce reactor stations. The DGR will receive the wastes currently in storage on the Bruce site interim facilities at the Western Waste Management (WWMF) as well as that produced from the continued operation of generating stations at Bruce, Pickering and Darlington, Ontario.

Low level waste consists of industrial items that have become contaminated with low levels of radioactivity during routine clean-up and maintenance activities at nuclear generating stations. Intermediate level radioactive waste consists primarily of used nuclear reactor components, ion-exchange resins and filters used in reactor water filtration systems. Shortly before a federal review hearing got underway in September 2013 OPG acknowledged that it also intended to place decommissioning wastes in the proposed DGR, a decision that would double the volume of the waste from 200,000 m³ to $400,000 \text{m}^3$. Ontario Power Generation has made a commitment to the host municipality of Kincardine that the Deep Geologic Repository will not be used to store high level nuclear fuel waste. Kincardine and other area municipalities have signed a "willing host" agreement with Ontario Power Generation which sets out a number of conditions, including payments from Ontario Power Generation to the municipalities which are dependent on statements of support for the project from the municipalities.

Key Issues in Environmental Assessment Review

- 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
- 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 metres³ 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 <u>after</u> they receive a project approval based on the original volume; the final use and size of the proposed DGR remain unknown
- 154 municipalities representing more than 20 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.
- The Project is not supported by the Saugeen Ojibway Nation; Ontario Power Generation has previously stated that it will not proceed without the support of the Saugeen Ojibway Nation.
- This project is an unacceptable risk to the world's largest fresh water supply: the Great Lakes.