

# Ten things Canadians need to know about the Chalk River “Near Surface Disposal Facility”

## **1. This proposed mega-dump for radioactive waste would be enormous. It would stand seven stories high and cover an area the size of 70 NHL hockey rinks.**

- This nuclear waste dump could be the largest in the world of its type (accepting both low- and intermediate-level radioactive waste). The dump would be 11 hectares in area and 25 metres in height. It would eventually contain **one million cubic metres of radioactive waste**.
- If approved, this giant mound of radioactive waste would be created alongside the Ottawa River at the Canadian Nuclear Laboratories in Chalk River, Ontario.
- Such a facility for permanent disposal of nuclear waste has never before been licensed in Canada. Regulations to limit radiation levels in this proposed “Near Surface Disposal Facility” (NSDF) do not currently exist.

## **2. The proponent of the dump is a consortium of profit-making multinational corporations.**

- In 2015 the Harper government turned the operation and management of the Canadian Nuclear Laboratories over to a consortium of for-profit multinational corporations based in the U.S., the U.K., and Canada (although the Chalk River site and its wastes remain under public ownership).
- The Harper government directed these corporations to “take actions to increase revenues generated from commercial activities.” They have signalled their intent to dispose of “waste arising from commercial activities” in the NSDF.
- Their current contract is ten years (ending in 2025). They can then walk away from any responsibility.

## **3. The site is not suitable for a dump of any kind given its location beside the Ottawa River - a drinking water source for millions of Canadians.**

- The proposed site is less than one kilometre from the Ottawa River, which flows downstream past many small Quebec and Ontario municipalities, through the Ottawa-Gatineau area, past the Houses of Parliament, and on to Montreal.
- The Canadian Nuclear Laboratories are virtually surrounded by water. The site was an island in the river in recent geological times.
- Leaks from the dump could contaminate drinking water for homes and cottages, villages, towns and cities downstream.

## **4. The proposed site is located on a major fault line above porous and fractured bedrock.**

- Studies conducted in the 1990s as part of the Deep River Disposal Project (a previous attempt to create a disposal facility at the Chalk River site) determined the underlying bedrock to be porous and fractured, with high rates of groundwater flow into the Ottawa River.
- The site is located in the Western Quebec seismic zone. Natural Resources Canada says that an earthquake occurs every five days on average in this zone. The largest of these earthquakes can have a magnitude of 6 on the Richter scale.

## **5. Downstream communities loudly voiced objection to radioactive waste disposal at this location in the 1990s**

- More than 50 Quebec and Ontario municipalities passed resolutions opposing the Deep River Disposal Project because of the unsuitability of this site.

## **6. The proposed dump could contain radioactive debris, garbage, and hazardous wastes from all over Canada.**

- In addition to wastes accumulated during more than 50 years of operation of the Chalk River Nuclear Labs (demolition debris, contaminated soils, stored wastes), radioactive wastes could be brought to the site from all over Canada.
- So-called “mixed wastes” (which may include PCBs, arsenic and mercury in addition to radionuclides) could also be disposed of in this facility.
- CNL’s original proposal only included low-level radioactive waste. It later added intermediate-level radioactive waste – waste that gives off enough radiation to require shielding, and may have half-lives of up to tens of thousands of years.

## **7. Hazardous and radioactive materials would inevitably leak into the Ottawa River.**

- The radioactive wastes in this dump would be placed on top of two plastic liners such as the type used in municipal landfills.
- Such liners, also called “geomembranes”, are not leak-proof.
- Causes of leaks could include incorrect installation, physical deterioration, punctures by sharp and or heavy objects, chemical deterioration, burrowing by animals, seismic activity, flooding, or sabotage.
- Long-lived radioactive wastes would remain hazardous far longer than the plastic liners could possibly endure.
- During the 50+ year period of operation, wastes would be exposed to rain and snow. Failure of the proposed leachate collection system or water treatment plant could result in rapid contamination of the Ottawa River.

## **8. The process for approving this proposal is flawed.**

- Changes to the Canadian Environmental Assessment Act made by the Harper government in 2012 eliminated independent panel reviews for nuclear projects and excluded the Minister of Environment from the decision-making process.
- The Canadian Nuclear Safety Commission (CNSC), an unelected body, has sole responsibility for project approval. It has demonstrated an inability to protect the environment and a tendency to favour industry interests over public safety.
- The CNSC will only provide two, 2-month periods for the public to comment on the environmental assessment of the NSDF (the first begins March 17, 2017).

## **9. The timeline for action is short.**

- A decision on project approval is scheduled to take place at a January 2018 CNSC hearing on renewal of CNL’s “site licence.” With CNSC approval, construction of the mega-dump could begin as soon as Fall 2018.

## **10. Citizens, municipal governments, and First Nations can help to protect the Ottawa River.**

- review and provide comments on the Environmental Impact Statement (EIS) by May 17, 2017; see websites below for link to the EIS
- contact municipal officials, MPs, MNAs, and MPPs to express concern
- consider passing a resolution (see websites below for samples); the municipalities of Sheenboro and Clarendon in Quebec have already passed resolutions objecting to the importation of nuclear waste to the Chalk River site.

*This fact sheet produced by the Old Fort William Cottagers’ Association ([www.ofwca.org/SheenOFWCA/OFWCACNL.html](http://www.ofwca.org/SheenOFWCA/OFWCACNL.html)) and Concerned Citizens of Renfrew County and Area (<https://sites.google.com/site/concernedcitizensrca/>).*

*References for the material in this fact sheet are provided on the Concerned Citizens of Renfrew County and Area website.*