



## ENVIRONMENTALISTS CHALLENGE RADIOACTIVE WASTE PLAN

**Toronto, Tuesday May 24, 2005** -- Canadian environmental groups say that a draft recommendation released today by the Nuclear Waste Management Organization (NWMO) has ignored a primary concern of Canadians -- as a first priority, no more high level radioactive waste should be produced..

“They refuse to consider waste reduction by shifting electricity production from nuclear power to cleaner, safer options. Nobody wants a radioactive waste dump in their backyard” said Dave Martin, Energy Coordinator for Greenpeace Canada.

In 2002 the federal government gave NWMO a three-year mandate to choose between three radioactive waste management alternatives: “deep geological disposal in the Canadian Shield”; “storage at nuclear sites”; or “centralized storage”. However, as NWMO admits, all of these options have serious problems.

NWMO has released a draft recommendation combining all three flawed options in a 300-year, \$24 billion “phased” approach moving from storage at nuclear plants, to centralized storage, and finally to deep rock disposal. It says the high-level radioactive waste dump should be located in either Quebec, Ontario, or Saskatchewan, and will make a final recommendation to the federal government by November 15, 2005.

“The Nuclear Waste Management Organization is leading the public down a radioactive garden path. This is just a re-packaged version of the standard nuclear industry options” said Brennain Lloyd, Coordinator for Northwatch, a coalition of groups in north-eastern Ontario. “The phased approach is the worst of all worlds – it combines all the problems of site-storage, centralized storage and deep-rock disposal.”

“There’s no way to contain poisons that last a million years. The first priority should be the phase-out of nuclear power not the phase-in of a radioactive waste dump” said. Dr. Gordon Edwards of the Canadian Coalition for Nuclear Responsibility.

Agreement on a nuclear waste strategy, environmentalists say, depends on waste reduction through the phase-out of Canada’s 22 nuclear reactors by 2020, at the end of their operational lives. NWMO says it has “not examined nor [made] a judgment about the appropriate role of nuclear power”. However, NWMO’s board members – Ontario Power Generation, New Brunswick Power and Hydro-Quebec – are all rebuilding or planning to rebuild their aging reactors, potentially doubling the amount of Canada’s radioactive waste.

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**BACKGROUND: NWMO RADIOACTIVE WASTE PLAN**

- Ignoring a 1998 recommendation by a federal environmental panel (the Seaborn Panel) to create an impartial radioactive waste agency, in 2002 the Chretien government gave control of the Nuclear Waste Management Organization (NWMO) to the nuclear industry – Ontario Power Generation, Hydro Quebec and New Brunswick Power.
- The Nuclear Fuel Waste Act gave the NWMO a three-year mandate to choose between (a) “deep geological disposal in the Canadian Shield”; (b) “storage at nuclear sites”; and (c) “centralized storage, either above or below ground”. The NWMO must make its final recommendation to the federal government by November 15, 2005.
- NWMO’s May 2005 draft recommendation was a fourth option called “Adaptive Phased Management”. It combines all three options in a 300-year phased approach moving from storage at nuclear plants, to centralized storage, and finally to deep rock disposal.
- In the first phase of the NWMO plan, while waste remained at nuclear plants for 30 years, a centralized site would be selected with rock formations allowing shallow underground storage, an underground research laboratory, and a deep geological repository. This site would therefore be in either the Canadian Shield or an area with Ordovician sedimentary rock (for example, south-western Ontario).
- In the second 30-year phase of the NWMO plan, either a shallow underground facility would be built at the identified site and waste transportation would begin, or waste would remain at the nuclear plants pending completion of a site research facility and construction of the deep geological repository at the site. The repository may or may not be closed within the following 240 years.
- NWMO says that the high-level radioactive waste dump should be located in either Quebec, Ontario, or Saskatchewan. This is apparently because these provinces have

nuclear reactor sites. However, there are also reactor sites in New Brunswick (Point Lepreau) and Manitoba (Whiteshell Laboratories). New Brunswick has been ruled out because it does not have suitable rock formations. Manitoba, however, *does* have suitable rock formations, and may have been excluded because of legislation forbidding radioactive waste sites. Quebec has a policy against the siting of a permanent radioactive waste dump, but no legislation.

- NWMO has identified 19 economic regions in Quebec where a radioactive waste dump could be located; 17 in Ontario; and 3 in Saskatchewan.
- NWMO has also stated, "We recognize that communities in other regions and provinces may come forward with interest in possibly hosting the facility [waste dump]. Such expressions of interest should also be considered." (Chapter 9, p. 160). The nuclear industry has long favoured deep geological disposal in the granite rock of the Canadian Shield, which is located in areas of Quebec, Ontario, Manitoba and Nunavut.

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- High level radioactive waste (also known as irradiated or spent fuel) is the used uranium fuel from nuclear power and research reactors. Each fuel bundle from a power reactor weighs about 24 kilograms, and at the end of 2004 there were about 1.9 million fuel bundles at Canadian nuclear facilities (about 45,000 metric tonnes). Without an early nuclear phaseout, an additional 2 million fuel bundles (about 45,000 metric tonnes) will be produced.
- High level radioactive waste contains over 100 different radioactive isotopes. Even low doses of radiation emitted by the waste can cause cancer, birth defects and other health problems. The waste is lethal and must be strictly isolated from the environment for a million years. If the wastes leak into the environment, the radioactive elements will contaminate the soil, water and air.
- The NWMO says cost of its proposal is \$22.6 to \$24.4 billion (\$2002) (Table 3-7, p. 106). This compares to industry estimates of \$14 to \$18 billion for deep geological disposal; \$16 to \$24 billion for reactor site storage, and \$14 to \$22 billion for central storage. The comparable present value figures (\$Jan2004) are \$5.1 to 6.1 billion for the NWMO proposal; \$5.5 to \$6.8 billion for deep geological disposal; \$1.9 to \$5 billion for reactor site storage; and \$2.8 to \$4.3 billion for central storage (See: *Joint Waste Owners Conceptual Designs*, March 2004).

**WHAT DOES NUCLEAR WASTE WATCH SUPPORT?** For the foreseeable future, radioactive waste management should be based on surface and/or near-surface monitored and retrievable storage -- at least until a nuclear power phaseout has been achieved, the technical case for an alternative option (or options) has been thoroughly reviewed, and a social consensus has been achieved. Nuclear Waste Watch is also calling for a joint federal/provincial environmental assessment panel on the full range of waste options following

the NWMO recommendation in November 2005. The federal government should also guarantee a full parliamentary debate and free vote on the recommendations of the NWMO and the environmental assessment panel.

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