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**CANADIAN VALUES  
CPRN FINDINGS**

A major research project undertaken to gauge Canadian values and expectations for the long-term management of used nuclear fuel is complete. The National Citizens Dialogue brought together representative samples of citizens for full-day sessions to learn about used nuclear fuel and discuss many of the difficult trade-offs that need to be considered about its long-term management. It is the first time that such a process has ever been applied to the discussion of used nuclear fuel in Canada.

The project was conducted in partnership with the Canadian Policy Research Networks, an independent, not-for-profit public policy research organization with a mission to create knowledge and lead public debate on social and economic issues important to the well-being of Canadians.



**Citizen's Dialogue: Sudbury**

Five hundred participants in 12 communities across the country were provided with factual background information. Then, in small groups and larger facilitated sessions, they discussed the consequences of various choices, and explored the values underlying their opinions.

Several common themes and characteristics for a desirable for approach to long-term nuclear

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**PRELIMINARY ASSESSMENT  
COMPARING THE METHODS**

The NWMO Assessment Team was established in early 2004 to evaluate approaches for the long term management of used nuclear fuel. Its tasks include describing the alternative approaches, developing an assessment methodology, and applying the methodology to compare the approaches. In conducting its preliminary analysis, the team has been working in parallel with the engagement process continuously integrating findings from the ongoing public consultations.

Selecting an assessment methodology was a difficult and important task. Recognizing that a focus on technical methods alone would not resolve the issue, the team put an emphasis on incorporating social and ethical considerations. The methodology they chose had to be capable of dealing with the complexity of the issue, a diversity of values and preferences, the long time frames involved, potential health and environmental risks, as well as public controversy and uncertainty.

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## GLOBE 2004: THE BUSINESS OF THE ENVIRONMENT

More than 1800 leaders in the business of the environment had an introduction to the NWMO at the Globe 2004 conference in Vancouver. The biannual international gathering is considered one of Canada's most important contributors in shaping a new ethic in corporate environmental policy.

Globe provides a platform for decision makers, business executives, technology specialists and environmental innovators to discuss environmental concerns and showcase their capabilities in environmental management and technology.

A highlight at this year's event was a panel discussion entitled "Sophistication of Stakeholder Relations." Along with two other leaders, NWMO president Elizabeth Dowdeswell discussed the importance of pre-decision dialogue with stakeholders and citizens. "People who are affected by policies bring special insights and expertise to the discussion," said Ms. Dowdeswell. "Those who participate in the process are more likely to sustain its outcome," she added.

Many of the Globe visitors and participants stopped by the NWMO display on the giant trade show floor. For some it was an introduction to the long-term nuclear waste management dialogue. For others it was an opportunity to reacquaint themselves with a discussion they had visited before. ■



Globe 2004: The Environment

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## CANADIAN VALUES: CPRN FINDINGS

waste management in Canada emerged. Among them:

- **Safety from harm.** This was clearly identified as an overarching requirement. It does not emerge from a sense of fear and doom, but rather a sense of responsibility to this and future generations.
- **We must deal with the problems we have created.** People place a high value on living up to one's responsibilities. They do not want to impose their problems on their children or grandchildren.
- **Adaptability.** Citizens do not presume we have the best answers today. They want to be open to new learning and to be able to adapt to it.
- **Sound stewardship.** People feel a duty to use all resources with care, leaving a sound legacy for future generations. They want

to look at the long-term implications of decisions.

- **Transparency and accountability.** Citizens want to know that those entrusted with responsibilities to protect the public are doing a good job.
- **Knowledge.** People want investment to create new knowledge and to enhance awareness to make better choices.
- **Inclusion.** The best decisions are based on a wide range of views. People don't want to replace experts, but they want a voice, especially in decisions that impact the safety and security of health and the environment.

CPRN will deliver its final report on the National Citizens Dialogue in July 2004. The findings are an important contribution to the social and ethical framework being applied to the assessment of management approaches. ■

## TIMMINS CITIZEN'S GROUP

The NWMO is available to update communities on its study. An information session in Timmins in response to an invitation from an interested citizen's group has generated significant discussion and elicited a variety of viewpoints.

"Some of us want to explore whether nuclear waste management might provide opportunities for our region as well as know more about the risks involved in managing nuclear waste," said group spokesperson Antoine Garwah. "Others are interested citizens who want to understand the issues and possibly participate in the study," he added.

"We need as much information as possible to find out what is out there and what can

be done," said local consultant Marz Kord. "There is huge potential for Timmins, and an open mind is needed," he said.

Resident Larry Levesque disagreed. "Stop making the waste in the first place," he said. "If it's hidden underground, the producers will feel they have a licence to continue to produce more," he added.

NWMO representative Donna Pawlowski told the group the NWMO is not conducting a site selection exercise. The organization is working cooperatively with Canadians to develop a recommendation that is "socially acceptable, environmentally responsible, technically sound and economically feasible," she said. ■

# Be Involved

The NWMO wants Canadians to become involved and help shape its study of nuclear waste management approaches. We're using electronic and face-to-face methods to dialogue with you and ensure your values and concerns are considered. Let your ideas and perspectives be known.

TAKE AN ELECTRONIC SURVEY

Visit [www.nwmo.ca](http://www.nwmo.ca)



## EDRAM INTERNATIONAL ATTENTION

Canada was in the spotlight when executives from international nuclear waste management organizations held their 2004 meeting in Niagara-on-the-Lake, Ontario. The EDRAM event drew representatives from around the world including Germany, France, Belgium, Sweden, Japan and the United Kingdom.

In addition to providing updates on the status of nuclear waste management programs in each of their countries the delegates had a close look at the NWMO study program. They were led through a three-hour workshop on social and ethical issues by NWMO president Elizabeth Dowdeswell.

The executives were challenged to consider "fairness," one of eight objectives being reviewed by the multi-disciplinary NWMO assessment team. They used the same multi-

attribute utility analysis methodology selected by the team. "It forced them to consider issues that might not ordinarily attract their attention," said Ms. Dowdeswell. "They didn't find it easy," she added.

Easy or not, the exercise was well-received. All of the delegates were fully engaged. ■



International Executives: Fairness Assessment

## METHODS AND MONEY CONCEPTUAL DESIGNS



Reactor Site Storage: Casks at Pickering NGS

Which technical method will Canada choose? And what will it cost? Those questions usually surface when the future management of used nuclear fuel is discussed.

Anticipating the need for answers, nuclear waste owners – Ontario Power Generation,

Hydro Quebec, NB Power and AECL – commissioned experts to develop conceptual engineering designs and cost estimates for the three methods specified for study in the Nuclear Fuel Waste Act. The work is intended to provide technical information in support of the NWMO's study and development of a recommended management approach for used nuclear fuel.

Before accepting the work, the NWMO subjected it to third party review by ADH Technologies. The independent consultants determined that the work is reliable and was done in accordance with established standards. NWMO will use the designs and cost estimates in its comparison and assessment of the management options. The reports are available for review on the NWMO website. ■

## 2003 ANNUAL REPORT: DIALOGUE CLEARLY UNDERWAY

The Hon. John Efford, Minister of Natural Resources Canada, is encouraging Canadians "to become involved in the decision-making process and state their views to the NWMO." The minister extended the invitation in his response to the organization's 2003 Annual Report which was submitted to him in March, 2004.



Hon. John Efford: Become Involved

In his written statement, Minister Efford said the Annual Report "clearly shows that the dialogue is underway with Canadians on the next steps in the long-term management of nuclear fuel waste." He pointed to progress in a number of areas including:

- implementation of innovative approaches to consult with the general public,
- development of a newsletter and interactive website,
- commissioning of background papers,
- the beginning of consultations with aboriginal and nuclear communities, and
- communications with international nuclear organizations.

The Minister observed that NWMO President Elizabeth Dowdeswell has given "high priority to public involvement in the dialogue process." He noted that Canadians have been provided with numerous avenues for input. ■

## ASSESSMENT TEAM MEMBERS:

### A MULTI-DISCIPLINARY TEAM



**Assessment Team: Week-long meetings**

The Assessment Team was established to assist the NWMO with a preliminary comparative assessment of management approaches for used nuclear fuel. "We knew that we needed to incorporate a 'whole systems' view so we established a multi-disciplinary team," said NWMO President Elizabeth Dowdeswell.

In addition to several NWMO staff members, the broad-based team includes:

**Michael Ben-Eli** (Chair), an internationally recognized pioneer of Systems Thinking and Cybernetics,

**Thomas Isaacs**, a senior manager and advisor with international experience in radioactive waste management programs,

**William Leiss**, an Officer of the Order of Canada who is also a Fellow and former President of the Royal Society of Canada,

**Michael Margolick**, a senior associate with Global Change Strategies International with areas of expertise which include energy policy and regulation, and public and stakeholder consultation,

**Katherine Moshonas Cole**, a professional engineer with experience in the nuclear industry, and

**Fred Roots**, an Officer of the Order of Canada who is a Science Advisory Emeritus to Environment Canada.

The team has held regular week-long meetings each month since January. Its report will be posted on the NWMO website in late summer 2004. ■

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## PRELIMINARY ASSESSMENT: COMPARING THE METHODS

Using as a roadmap the ten questions posed in the first NWMO discussion document, *Asking the Right Questions?* a set of objectives for an acceptable management approach was identified. The team determined that fairness, public health and safety, worker health and safety, community well-being, security, environmental integrity, economic viability and adaptability all needed to be addressed.

After consideration of other tools, a "multi-attribute utility analysis" was chosen. The team concluded it would work well incorporating social and ethical considerations and bringing discipline and rigour to judgements that are made, often in the absence of quantitative data. The multi-attribute methodology individually scores and maps all of the factors which influence objectives on influence diagrams. That way, subjective assumptions can be seen transparently and explored after the fact to determine whether different assumptions would change the results.

"For at least a decade we have recognized the requirement to build social and ethical considerations into key public policy

decisions. But knowing how to actually do it remains a challenge. From the start the team has made a real attempt to build social and ethical considerations into the assessment. They are not being looked at separately after the fact," said NWMO president Elizabeth Dowdeswell. "Our hope is that the team's work will raise questions to help Canadians think through as a whole, understand the full range of issues and develop their own thinking in making choices" she added.

Based on its holistic approach the team has been sensitive to a flexible, step-by-step management system with periodic decision points to take advantage of new knowledge or changing conditions. The team has also pointed to the need for ongoing involvement of citizens at key decision points no matter what management approach is adopted.

The full preliminary assessment will be published on the NWMO website when it is complete. It will be discussed in *Understanding the Choices*, the second NWMO discussion document due in late summer, 2004. ■

## UNDER THE BIG TOP



**NWMO Team: Under The Big Top**

More than 500 people visited **Under the Big Top**, a Hydro Quebec-sponsored open house

at the Gentilly 2 Nuclear Generating Station in Becancour, Quebec. The NWMO booth was a popular stop at the family-oriented event. Guests enthusiastically participated in an NWMO quiz game which featured questions about energy, science, climate and the environment. An NWMO carry bag was a hit with visitors who took home information packages provided by the NWMO and other exhibitors. ■