nwmo
NUCLEAR WASTE MANAGEMENT ORGANIZATION
SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

nwmo news

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The work continues

ADAPTIVE PHASED MANAGEMENT

Canada's Plan for Used Nuclear Fuel

The Government of Canada has selected Adaptive Phased Management as the approach for long-term care of used fuel produced by the country's nuclear electricity generating stations. The approach was recommended by the Nuclear Waste Management Organization (NWMO) in November 2005 after a three year study which engaged more than 18,000 citizens in every province and territory of Canada.

"This is a safe, long-term approach. Adaptive Phased Management will ensure the used nuclear fuel is monitored and retrievable," said Minister of Natural Resources Canada Gary Lunn who made the announcement on June 14th. "It is also designed to take advantage of emerging energy technologies, including the possibility of recycling the fuel," he added.

"We are pleased with the Government's decision and we look forward to next phase of our work," said Ken Nash, NWMO President. "By choosing Adaptive Phased Management the government has responded to the objectives and priorities Canadians have said are important for long-term used fuel management."

Adaptive Phased Management is a technical method and a management system. Technically, it is centralized containment and isolation of used nuclear fuel in a deep geological repository. The management system is phased and adaptive. It involves realistic, manageable phases – each marked by explicit decision points and ongoing participation by interested citizens. It is also flexible, allowing for go, no-go decisions at each stage to take advantage of new knowledge or changing societal priorities. The approach is consistent with policies adopted internationally by countries such as Sweden and Finland.



Gary Lunn, NRCan Minister and Ken Nash, NWMO President

"We have already begun to build the skills and capabilities within the organization that will be needed to carry out the important social and technical work necessary for implementing the government decision," said Mr. Nash. "We are committed to a collaborative process responsive to the best available science and respectful of the social, cultural and economic aspirations of affected people and communities."

The NWMO will seek an informed, willing community to host its deep repository. The organization will not

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ADAPTIVE PHASED MANAGEMENT

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consider sites until after a fair and acceptable selection process has been collaboratively developed with potentially affected people and communities, including Aboriginal people.

Each of the nuclear fuel waste owners, Ontario Power Generation, Hydro-Québec, NBPower Nuclear and AECL, contribute annually to segregated trust funds ensuring that the money will be available to safely manage used fuel over the long-term. The total value of the trust funds at year-end 2006 was over $1 billion. The money can only be used by the Nuclear Waste Management Organization after a construction or operating licence has been issued to implement Adaptive Phased Management. Including the trust funds, the waste owners had $3.3 billion in segregated funds dedicated to the long term management of used nuclear fuel as of December 31, 2006.

In its 2007 Annual Report to the Minister of Natural Resources the NWMO will provide detailed financial information on Adaptive Phased Management and the level of annual deposits required by the waste owners to fund the requirement. The formula will be subject to review and approval by the Minister of Natural Resources.

WE'VE MOVED

The NWMO has relocated its offices effective June 25, 2007. We've moved in order to accommodate a growing staff complement. Our new location is in the same Toronto neighbourhood as our old offices and is readily accessible by public transit. You can now reach us in person, or by mail, at:

Nuclear Waste Management Organization
22 St. Clair Avenue East, Sixth Floor
Toronto, Ontario M4T 2S3

Our main phone numbers remain the same: **Tel (416) 934-9814**
Toll Free (866) 249-6966

YOUTH SUMMER PROJECT

Two-Way Communications

Jennifer Piccin and Gitpu Nevin have unique summer jobs. The two students are conducting a special project for the NWMO, exploring two-way communications with Aboriginal people.

The assignment is taking the pair to Aboriginal communities in Elsboqtoq (Big Cove), New Brunswick, Constance Lake, Ontario and Ile-a-la-Crosse, Saskatchewan. Over six weeks they'll conduct meetings with Elders, youth and community members to develop an understanding of the processes, tools and potential methods for communicating with Aboriginal people, particularly youth, about the long-term management of used nuclear fuel.

For Gitpu, a third year philosophy student at St. Francis Xavier University in Nova Scotia, the first two weeks on the road were actually spent at home. He's a member of the Elsipogtog community in New Brunswick. He's also a standing member of the Migmag Maliseet Atlantic Youth Council. "My goals in life include creating further balance within society, empowering people, and giving life to the phrase, 'all of my relations' while searching for what is true," says Gitpu.

A Montreal native, Jennifer is studying environmental and social issues at the University of Toronto. She says the summer communications project "allows me to practice what I am learning in my studies in International Development and to prepare for my goal of working with people in developing countries."

Jennifer and Gitpu are not working alone. They are supported in the field by Cynthia Jourdain, a member of the Couchiching First Nation in Northwestern Ontario who is also a full-time NWMO staff member working in Engagement and Communications.

The summer project builds on what the NWMO heard during a two-day Issue Table on the subject of effective communications conducted in 2006. The program was designed and prepared with the assistance and support of Niigāni, the working group formed through the NWMO Elders' Forum.

"Throughout our three year study we heard that dialogue and communication



Youth Project Team
Jennifer, Gitpu, Cynthia

with Aboriginal people and communities is best approached through recognition of their unique culture" said Pat Patton, NWMO Manager of Engagement and Aboriginal Relations. "We must respect Aboriginal protocols and traditions while keeping in mind that each community may be different," she added.

In August, after completing their community visits, Jennifer and Gitpu will return to the new NWMO offices in Toronto to prepare a report on their project.

Moving Forward Together

The Government of Canada has selected Adaptive Phased Management for the long-term care of used nuclear fuel. The NWMO will now implement the approach. We encourage you to participate. Visit our website.

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ADVISORY COUNCIL

Closely follows NWMO work

The Government of Canada has selected a strategy to provide for the long-term care of used nuclear fuel. They have chosen Adaptive Phased Management, as recommended by the Nuclear Waste Management Organization (NWMO). The approach provides a comprehensive roadmap for a staged process that will engage Canadians at key decision points, allowing for societal judgements on whether there is sufficient certainty to proceed with each step. It will result in the ultimate containment and isolation of used fuel in a repository deep underground in a suitable rock formation, unless future generations determine otherwise.

I chair the nine-member Advisory Council established to provide independent comment on the NWMO's three-year study and conclusions. We are a diverse group with a range of perspectives, knowledge, and experience that includes nuclear engineering, environmental sustainability, public policy, Aboriginal affairs and citizen engagement. Each of us has his/her own outlook on the future of nuclear electricity. But, regardless of our views, we all agree that our generation has a responsibility to safely manage the waste we produce and to put in place a process that would allow future generations to confirm or adapt the approach in the light of their experiences and circumstances.

Adaptive Phased Management allows our generation to take the necessary first steps now to assume responsibility for used nuclear fuel from existing reactors. It is a realistic response to the consequences of our past choices about nuclear power. But it is not a green light for expansions of nuclear power production beyond the lifespan of the current fleet of reactors. We believe, as did many participants in NWMO's process, that the future of nuclear power must be part of an urgently needed public policy discussion about future energy supplies in Canada.

The Advisory Council saw its role as two-pronged during the NWMO study phase. We followed NWMO's work closely, offering ongoing review and constructive comment so that the organization could respond to our advice as the process unfolded. We also were careful to maintain our ability to provide independent reviews. We developed four criteria to guide our assessment: comprehensiveness, fairness and balance, integrity, and transparency.

The NWMO carried out an extensive and sophisticated public engagement program. A wide variety of techniques, both innovative and traditional, was utilized to listen to and consider the broad array of citizen, stakeholder and specialist views on long-term nuclear waste management. A National Citizen's Dialogue and public attitude research probed the values of Canadians who wouldn't normally engage in this issue. Numerous workshops and public information sessions were held across the country, with a special emphasis on those communities that host existing nuclear facilities (Ontario, New Brunswick and Quebec) and uranium mines (Saskatchewan). Aboriginal peoples participated through NWMO-supported dialogue programs designed and delivered by their own national, regional and local organizations.



David Crombie
Chair, NWMO Advisory Council

A great deal of technical work has been done over many years in Canada and internationally on management systems for used nuclear fuel. Adaptive Phased Management builds on many of the strengths of three technical options that the NWMO was required by law to consider: deep disposal in the Canadian Shield, continued storage at reactor sites, and centralized storage anywhere in Canada. These were assessed using a framework that integrates social and ethical factors along with technical and economic considerations. The result was the design of a new approach – a progressive, adaptive process that, given sufficient time, commitment, resources and leadership, has the potential to provide social acceptance.

Adaptive Phased Management will engage a broad cross-section of Canadians in ongoing, informed dialogue so that the process can respond to societal and ethical concerns. It fairly puts financial responsibility on the generations that benefit from nuclear power while ensuring that future societies are provided genuine choices to make their own decisions. Properly implemented, it will incorporate continuous learning, allowing for the application of improved technologies. It provides sufficient time to develop and demonstrate technical expertise. Decisions about moving forward will be made in an open and transparent manner.

The NWMO has many challenges ahead. Its governance structures should be reviewed and revised to ensure the NWMO has credibility and public trust as it evolves from a study organization to an implementing agency. It must continue to seek and consider the diverse views of all

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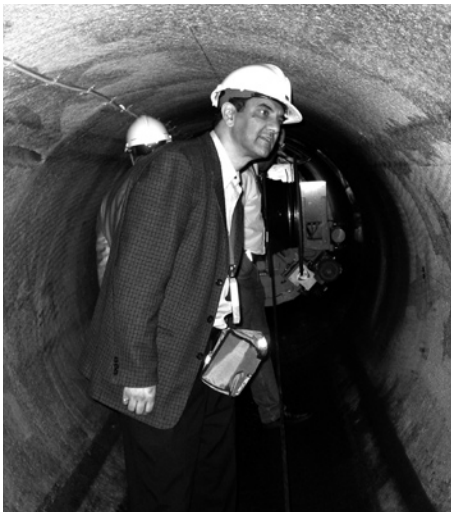
INTERNATIONAL PARTNERS

Sweden

Sweden has one of the most advanced national programs for long-term nuclear fuel waste management in the world. SKB, the country's nuclear fuel and waste management company, has followed an approach similar to the one Canada has adopted and expects to complete its step-wise process to select a site for a deep geological repository within the next few years.

"We have a great deal to learn from the Swedes," said Mahrez Ben Belfadhel, NWMO Manager for Geoscience, who along with Sean Russell, the organization's Technology Development Manager, recently returned from a visit to the Äspö Hard Rock Laboratory in Oskarshamn. "Through our partnership with them, we are also learning a great deal together," he added. The NWMO and SKB jointly conduct a range of underground experiments and demonstrations of repository technology at the lab.

"A highlight of our visit was seeing first-hand progress being made in the precision drilling of horizontal boreholes in crystalline rock," said Mr. Russell. "Technology demonstration in underground laboratories



Mahrez Ben Belfadhel Precision Drilling

is key to improving confidence in the safety of used fuel repositories," he said.

Sweden has narrowed its search of a used fuel repository site to two willing host communities, Forsmark and Oskarshamn. SKB believes that both sites would meet safety requirements.

ADVISORY COUNCIL

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sectors of society with particular emphasis on potential willing host communities, youth and Aboriginal peoples. It will have to develop a strong education program to deepen public understanding of the issues and assist informed decision-making. Of course, the appropriate leadership, resources and time must be made available for successful implementation.

Canadians, specialists and citizens alike, have expressed their views on the management of existing and expected used nuclear fuel from the current fleet of reactors. The Government has responded to the objectives and priorities people said are important. It is now up to the NWMO to collaboratively implement the strategy in a way that is open, transparent, fair and inclusive.

Hon. David Crombie
Chair, NWMO Advisory Council

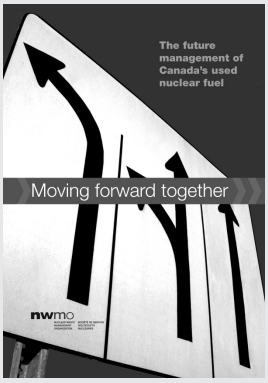
NEW MANDATE

New Brochure

THE NWMO HAS PRODUCED A NEW BROCHURE TO REFLECT ITS NEW MANDATE.
"We want to reintroduce ourselves to those who participated in our study and to invite new people to join us in implementing the government decision," said Michael Krizanc, NWMO Communications Manager.

The colorful 16 page brochure tells the story of the NWMO and the Adaptive Phased Management plan that emerged through the three year study. It utilizes the analogy of a roadmap to illustrate the process of adaptive implementation.

Entitled *Moving Forward Together* the document will be distributed wherever the NWMO meets with people in the coming months and is also available on request through the website **www.nwmo.ca**, by telephone or by mail.



Moving Forward Together

Available Now

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