nwmo

NUCLEAR WASTE MANAGEMENT ORGANIZATION
SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

February 2005

Summary Report

Information and Discussion Sessions

DPRA Canada

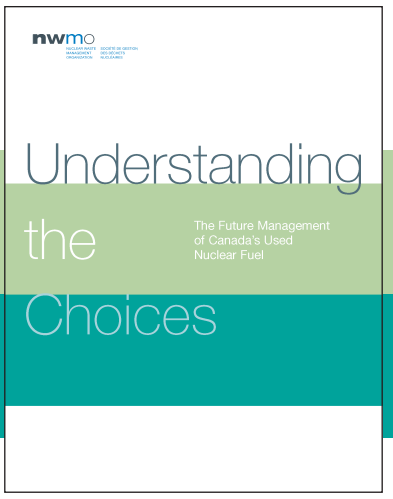


TABLE OF APPENDICES

APPENDIX A: Locations and Venues **2**
APPENDIX B: Information and Discussion Session Number of Participants **5**
APPENDIX C: Sample Notification Letter **7**
APPENDIX D: NWMO Background Information **10**
APPENDIX E: Sample Invitation to Attend Discussion Session Letter **13**
APPENDIX F: National Advertisement **15**
APPENDIX G: Sample Local Advertisement **17**
APPENDIX H: Advertisement Placement **19**
APPENDIX I: Workbook and Questionnaire **23**

APPENDIX A: Locations and Venues

Locations and Venues

Date	Session	Venue
September 27/28	Yellowknife Information Sessions	The Explorer Hotel
September 28	Yellowknife Discussion Session	The Explorer Hotel
September 27/28	St. John's Information Sessions	The Battery Hotel and Suites
September 28	St. John's Discussion Session	The Battery Hotel and Suites
September 29/30	Edmonton Information Sessions	Comfort Inn and Suites
September 30	Edmonton Discussion Session	Comfort Inn and Suites
September 29/30	Goose Bay Information Sessions	Aurora Hotel
September 30	Goose Bay Discussion Session	Aurora Hotel
October 4/5	Bécancour Information Sessions	Église de Bécancour
October 6/7	Halifax Information Sessions	Holiday Inn Select
October 7	Halifax Discussion Session	Holiday Inn Select
October 6/7	London Information Sessions	Ramada Inn London
October 13/14	Whitehorse Information Session	Best Western Gold Rush Inn
October 14	Whitehorse Discussion Sessions	Best Western Gold Rush Inn
October 13/14	Vancouver Information Sessions	Sandman Hotel
October 14	Vancouver Discussion Session	Sandman Hotel
October 18/19	Pickering Information Sessions	Pickering Recreation Centre
October 19	Bécancour Discussion Session	Église de Bécancour
October 20/21	Regina Information Sessions	Best Western Seven Oak Inn
October 21	Regina Discussion Session	Best Western Seven Oaks Inn
October 20/21	Toronto Information Sessions	Courtyard Marriott
October 25/26	Musquash Information Sessions	Musquash Fire Hall
October 27/28	Winnipeg Information Sessions	Howard Johnson Hotel
October 28	Winnipeg Discussion Session	Howard Johnson Hotel
October 27/28	Fredericton Information Sessions	Lord Beaverbrook Hotel
November 1/2	Huntsville Information Sessions	Hidden Valley Holiday Inn
November 1/2	Montréal Information Sessions	Hôtel Crowne Plaza
November 1/2	Clarington Information Sessions	Memorial Park
November 3/4	Kingston Information Sessions	Radisson Hotel
November 3/4	Québec City Information Sessions	Musée de la civilisation
November 8/9	Charlottetown Information Sessions	Delta Prince Edward
November 9	Charlottetown Discussion Session	Delta Prince Edward
November 8/9	Ottawa Information Sessions	Aristocrat Suite Hotel
November 10[1]	Pembroke Information Sessions	Best Western Pembroke Inn and Conference Centre
November 10[2]	Edmundston Information Sessions	Château Edmundston (Howard Johnson)

[1] In honour of Remembrance Day, information sessions were not held on November 11th.

[2] In honour of Remembrance Day, information sessions were not held on November 11th.

Date	Session	Venue
November 15/16	Sept-Îles Information Sessions	Hôtel des gouverneurs
November 17/18	Timmins Information Sessions	Days Inn (Senator Hotel)
November 17/18	Rivière-du-Loup Information Sessions	Hôtel Levesque
November 22/23	Pinawa Information Sessions	Old Gym, WB Lewis Business Centre
November 22/23	Rouyn-Noranda Information Sessions	Hôtel Albert
November 24/25	Thunder Bay Information Sessions	Ogden Community Centre
November 24/25	Kenora Information Sessions	Best Western Lakeside Inn and Conference Centre
November 25	Sept-Îles Discussion Session	Hôtel des gouverneurs
November 27	Pembroke Discussion Session	Travelodge
November 29	Musquash Discussion Session	Musquash Fire Hall
November 30	Fredericton Discussion Session	Fredericton Inn
November 30	London Discussion Session	Ramada Inn and Conference Centre
December 1	Montréal Discussion Session	Hôtel Crowne Plaza
December 1	Toronto Discussion Session	Courtyard Marriott
December 2	Huntsville Discussion Session	Hidden Valley Holiday Inn
December 2	Rivière-du-Loup Discussion Session	Hôtel Levesque
December 4	Kingston Discussion Session	Radisson Hotel
December 6	Québec City Discussion Session	Musée de la civilisation
December 6	Pickering Discussion Session	Pickering Recreation Centre
December 7/8	Iqaluit Information Sessions	Discovery Lodge Hotel
December 8	Iqaluit Discussion Session	Discovery Lodge Hotel
December 7	Clarington Discussion Session	Memorial Park
December 8[3]	Edmundston Discussion Session	Château Edmundston
December 9	Ottawa Discussion Session	Aristocrat Hotel
December 9	Owen Sound Information Session	Harry Lumley Recreation Centre
December 9	Owen Sound Discussion Session	Harry Lumley Recreation Centre
December 13	Timmins Discussion Session	Days Inn (Senator Hotel)
December 14	Sudbury Discussion Session	Holiday Inn Sudbury
December 14	Thunder Bay Discussion Session	Ogden Community Centre
December 15	Kenora Discussion Session	Best Western Lakeside Inn and Conference Centre
December 15[4]	Pinawa Discussion Sessions	Old Gym, WB Lewis Business Centre
December 16	Rouyn-Noranda Discussion Session	Hôtel Albert

[3] Edmundston Discussion Session was cancelled due to poor weather conditions.
[4] An afternoon discussion session was held (in addition to the evening discussion session) as the result of suggestions from participants attending the Pinawa Information Session.

APPENDIX B: Information and Discussion Session Number of Participants

Information and Discussion Session Number of Participants

Session	Information Session	Discussion Session
Bécancour	12	11
Charlottetown	5	2
Clarington	6	11
Edmonton	4	6
Edmundston	3	0
Fredericton	7	13
Goose Bay	1	0
Halifax	2	2
Huntsville	13	5
Iqaluit	6	2
Kenora	30	18
Kingston	11	2
London	10	13
Montréal	15	10
Musquash	22	10
Ottawa	32	30
Owen Sound	12	5
Pembroke	11	10
Pickering	14	8
Pinawa	39	21
Québec City	5	3
Regina	6	6
Rivière-du-Loup	3	3
Rouyn-Noranda	20	29
Sept Iles	7	13
St. John's	2	0
Sudbury	32	18
Thunder Bay	36	20
Timmins	55	66
Toronto	10	42
Vancouver	13	3
Whitehorse	1	0
Winnipeg	24	24
Yellowknife	4	1
Number of Participants	**473**	**407**
TOTAL NUMBER OF PARTICIPANTS		**880**

APPENDIX C: Sample Notification Letter

Dear...

Re: Community Information and Discussion Sessions regarding the
Future Management of Canada's Used Nuclear Fuel

I am taking this opportunity to let you know about the work of the Nuclear Waste Management Organization (NWMO) and our plans to come to your community as part of our ongoing dialogue with Canadians on the subject of nuclear waste management in Canada.

The NWMO is an organization that was created in response to federal legislation passed in November 2002. Our mandate is to conduct a study on long-term approaches for the management of used nuclear fuel, a waste which is created in the production of electricity by nuclear energy. We must submit our study and recommendations to government by November 2005.

As a critical element of our study we began by having conversations about expectations with Canadians. Over the next few months, that dialogue will intensify as we visit communities in each province and territory of Canada to provide information and solicit comment and discussion on this important public policy issue. We are visiting more than 30 communities, including all capital cities in Canada as well as regional centres in provinces with nuclear energy. The focus of these meetings will be our second discussion document, entitled "Understanding the Choices". This document, which was just released, outlines how we intend to go about assessing the management approaches, which are under study, and provides some initial thoughts about the strengths and limitations of these approaches.

We have been asked whether, in conducting these information and discussion sessions, we are looking for a site for a nuclear waste management facility. Please let me assure you that we are not. In selecting the communities for this dialogue we are simply attempting to ensure that we hear the questions and concerns of a cross-section of Canadians about the different approaches which are under study, and about the work of NWMO to date.

We are planning to visit your community as follows:

Community Information Session: **Information Displays and Presentations**		**Community Discussion Session:** **Facilitated Roundtable Discussions**	
Date:	_____	**Date:**	_____
Place:	_____	**Place:**	_____
	_____		_____
City:	_____	**City:**	_____
Time:	**2:00 - 5:00 pm & 6:30 - 9:00 pm**	**Time:**	**6:30 to 10:00 pm** **(NB if Saturdays: 9 am to 12:30 pm**

I have included a brief package of material about the NWMO and its collaborative approach to the study, for your information. I invite you to visit our website at www.nwmo.ca or, should you have any questions or concerns, please do not hesitate to call NWMO at 1-866-249-6966 to speak with my Communications Director Mike Krizanc, or to speak with me directly.

Best Regards,



Elizabeth Dowdeswell
President

APPENDIX D: NWMO Background Information

Background for Community Information and Discussion Sessions

The Nuclear Waste Management Organization

The NWMO

The Nuclear Waste Management Organization (NWMO) was created by Canada's major producers of used nuclear fuel to meet their obligations under the *Nuclear Fuel Waste Act, 2002*. The organization's purpose is to conduct a comprehensive study of approaches for managing used fuel over the long-term, to recommend a preferred approach to the Government of Canada, and to implement the approach approved by the Government on the recommendation of the Minister of Natural Resources. The *Nuclear Fuel Waste Act* requires the organization to study, at a minimum, three methods: deep geological disposal; storage at nuclear reactor sites; and centralized storage, either above or below ground. It may study other approaches.

A Collaborative Approach

The NWMO has committed to "develop collaboratively with Canadians a management approach that is socially acceptable, technically sound, environmentally responsible and economically feasible." Early in its mandate, the NWMO engaged a broad range of individuals and communities of interest in a series of conversations to explore expectations about the NWMO mandate and to help guide the development of its study plan. Through all stages of the study, insights and perspectives gained from engagement activities are integrated into the organization's work. Through the study period, the NWMO will publish three milestone discussion documents to share its thinking, as it evolves, for review and comment.

Asking the Right Questions?

The first NWMO discussion document was entitled *Asking the Right Questions?* It extended an invitation for Canadians to reflect on the complex issues posed by used nuclear fuel, provide their perspectives on various approaches for its long-term management, and on how these approaches should be evaluated. A National Citizen's Dialogue, involving 462 Canadians in 12 communities, was one component of the public engagement which followed. These citizens discussed what principles should guide decision-making about used nuclear fuel management over the long term.

Understanding the Choices

The second NWMO discussion document, *Understanding the Choices* was published in September 2004. It elaborates on what the management approaches being studied might look like, outlines how the proposed method to assess them has evolved, and presents a preliminary assessment of the approaches for discussion. *Understanding the Choices* is available on the NWMO website: **www.nwmo.ca**. To obtain a copy, e-mail: info@nwmo.ca, or telephone: 1-866-249-6966.

Purpose of the Community Information and Community Discussion Sessions

The purpose of the Community Information and Community Discussion Sessions is to develop awareness of the NWMO and its mandate and to engage Canadians in a dialogue about the preliminary descriptions of long-term nuclear waste management approaches and the framework being proposed to assess them. The focus of the Information and Discussion Sessions will be the NWMO Discussion Document 2, *Understanding the Choices.*

The Community Information and Community Discussion Process

In most instances, the NWMO's public dialogue on Discussion Document 2, *Understanding the Choices*, consists of two phased activities: an initial Community Information Session over two days in approximately 30 locations across Canada; and, following a period of two to three weeks, a facilitated Community Discussion Session in each of the same communities. The time period between the sessions will allow participants to review the information in Discussion Document 2 and develop their views in preparation for the Community Dialogue Sessions. Some Discussion Sessions will occur on the second evening, following a round of Information Sessions.

Community Information Sessions

The Community Information Sessions provide an opportunity for Canadians to become familiar with the NWMO and its mandate to recommend a preferred long-term management approach for used nuclear fuel. The sessions will allow for members of the public and interested stakeholders to meet and speak with NWMO staff and consultants, review information panels on the NWMO study to date, and provide their views on Discussion Document 2, *Understanding the Choices*. The Community Information Sessions will be held from 2 to 5 p.m. and from 6:30 to 9 p.m. Two presentations on the NWMO process and the content of Discussion Document 2 will be made, one at 3:30 p.m. and one at 7:30 p.m. Each presentation will be followed by a question and answer session.

Community Discussion Sessions

The Community Discussion Sessions involve active dialogue in a facilitated roundtable setting to obtain comments and views on the content of Discussion Document 2 from the public and stakeholder groups. Following a presentation on the discussion document, the roundtable dialogues will focus on the key questions posed in the document. The Community Discussion Sessions will generally be held on weekday evenings from 6:30 to 10:00 p.m. Some sessions may be held on a Saturday morning from 9 a.m. to 12:30 p.m.

In addition to the facilitated roundtable discussions, a self-directed workbook is available electronically and in hard copy for the use of any interested party.

For More Information

Should you require more information on the NWMO or the Community Information and Discussion Sessions, please visit the NWMO website: www.nwmo.ca, send an e-mail to: info@nwmo.ca, or call 1-866-249-6966.

APPENDIX E: Sample Invitation to Attend Discussion Session Letter

Date

Dear ,

Thank you for your recent participation at an information session in Musquash hosted by the Nuclear Waste Management Organization (NWMO). We appreciate your attendance.

The NWMO was established in response to federal legislation to conduct a study and provide a recommendation to the Government of Canada for the long-term management of used nuclear fuel. We have committed to working cooperatively with Canadians to develop a plan that is socially acceptable, environmentally responsible, technically sound and economically feasible. We must submit our study by November 2005.

The NWMO is returning to Musquash to conduct a facilitated discussion session on November 29th, 2004 at the Musquash Fire Hall. The focus will be our second discussion document, *"Understanding the Choices"* which outlines how we propose to assess the management approaches which are under study, and provides some initial thoughts about their strengths and limitations.

We would like to consider three key questions:

- Is the assessment framework comprehensive and balanced? Are there gaps, and if so, what do we need to add?
- What are your thoughts on the strengths and limitations of each management approach?
- Are there specific elements that you feel must be built into an implementation plan?

If you would like additional copies of *Understanding the Choices* or other background materials, please call 1-800-349-4859 or visit www.nwmo.ca.

We look forward to hearing your comments about the future management of used nuclear fuel in Canada. Please feel free to invite any friends, colleagues or family members who might be interested in joining the dialogue on November 29th, 2004

Sincerely,



Pat Patton

APPENDIX F: National Advertisement

How should Canada manage its used nuclear fuel in the future?

You are Invited to Learn More and Provide Your Views

The **Nuclear Waste Management Organization** will host Community Information and Discussion sessions across Canada beginning September 27, 2004:

Whitehorse, YT	Huntsville, ON	Timmins, ON	St. John's, NFLD
Yellowknife, NWT	Kenora, ON	Toronto, ON	Edmunston, NB
Iqaluit, NU	Kingston, ON	Becancour, PQ	Fredericton, NB
Vancouver, BC	London, ON	Montreal, PQ	Musquash, NB
Edmonton, AB	Ottawa, ON	Quebec City, PQ	Halifax, NS
Regina, SK	Pembroke, ON	Rivière du Loup, PQ	Charlottetown, PEI
Pinawa, MB	Pickering, ON	Rouyn, PQ	
Winnipeg, MB	Sudbury, ON	Sept Isles, PQ	
Clarington, ON	Thunder Bay, ON	Goose Bay, LB	

To obtain more information on dates and locations for Community Information and Discussion Sessions:

Visit the NWMO website: www.nwmo.ca
Send an e-mail to: info@nwmo.ca
Call: 1-800-349-4859

nwmo

NUCLEAR WASTE MANAGEMENT ORGANIZATION
SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

You may also provide your views on the proposed options for managing used nuclear fuel on-line (**www.nwmo.ca**), at the Information and Discussion Sessions or by calling: **1-800-349-4859**

APPENDIX G: Sample Local Advertisement

V2_Timmins 10/29/04 2:13 PM Page 1

How should Canada manage its used nuclear fuel in the future?

The Nuclear Waste Management Organization (NWMO) is conducting a comprehensive study of approaches for the long-term management of Used Nuclear Fuel in Canada.

You are Invited to Learn More and Provide Your Views

NWMO is hosting Information and Discussion Sessions:

Community Information Sessions	Community Discussion Session
Wednesday, November 17 from 6-9:00 pm OR *Thursday, November 18 from 2-5:00 pm and from 6-9:00 pm*	*Monday, December 13 from 6-9:30 pm* (Presentation at 6 pm with group discussion to follow)

All sessions will be held at the

DAYS INN - 14 Mountjoy Street South, Timmins, ON

To register for the Community Discussion Session, obtain more information and to receive the NWMO Discussion Document 2: *"Understanding the Choices"*:
Call 1-800-349-4859 or Send an e-mail to: info@nwmo.ca

You may also register for the Discussion Session at the Information Sessions.

nwmo
NUCLEAR WASTE MANAGEMENT ORGANIZATION
SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

You may also provide your views on the proposed options for managing used nuclear fuel in the NWMO Workbook, available on-line:
www.nwmo.ca
or at the Information and Discussion Sessions or by calling: **1-800-349-4859**

APPENDIX H: Advertisement Placement

Information and Discussion Sessions Advertising

Session	Newspaper Advertising	Radio Advertising
Bécancour Information Sessions	La Nouveliste	CHLN-am
Bécancour Discussion Session	La Nouveliste	CHLN-am
Charlottetown Information Sessions	The Guardian	CHLQ FM
Charlottetown Discussion Session	The Guardian	CHLQ FM
Clarington Information Sessions	Clarington Canadian Statesman	CFMJ CFTR 680 News CKRB CKFM
Clarington Discussion Session	Clarington Canadian Statesman Port Hope Evening Guide	CFMJ CFTR 680 News CKRB CKFM
Edmonton Information Sessions	Journal	CHED-am
Edmonton Discussion Session	Journal	CHED-am
Edmundston Information Sessions	Info Week-end (French) Northern Light (English)	CFAI-fm
Edmundston Discussion Session	Info Week-end (French) Northern Light (English)	CFAI-fm
Fredericton Information Sessions	Daily Gleaner (French and English)	CIBX-fm
Fredericton Discussion Session	Daily Gleaner (French and English)	CIBX-fm
Goose Bay Information Sessions	Labradorian	CFLN-am
Goose Bay Discussion Session	Labradorian	CFLN-am
Halifax Information Sessions	Chronicle Herald	CIEZ-fm
Halifax Discussion Session	Chronicle Herald	CIEZ-fm
Huntsville Information Sessions	Muskoka Advance	CFBX-fm
Huntsville Discussion Session	Muskoka Advance	CFBX-fm
Iqaluit Information Sessions	Nunatsiag News (English and Inuktitut)	CKIQ-fm (English and Inuktitut)
Iqaluit Discussion Session	Nunatsiag News (English and Inuktitut)	CKIQ-fm (English and Inuktitut)
Kenora Information Sessions	Daily Miner & News	CJRL-am
Kenora Discussion Session	Daily Miner & News	CJRL-am
Kingston Information Sessions	Whig Standard	CFLY-fm
Kingston Discussion Session	Whig Standard	CFLY-fm
London Information Sessions	Free Press	CKSL CJBX
London Discussion Session	Free Press	CKSL CJBX
Montréal Information Sessions	La Presse (French) Gazette (English)	CJAD-am (English) CKAC-am (French)
Montréal Discussion Session	La Presse (French) Gazette (English)	CJAD-am (English) CKAC-am (French)
Musquash Information Sessions	Telegraph Journal Saint John Le Trait d'Union (French)	CHWV-fm

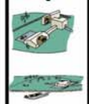
Session	Newspaper Advertising	Radio Advertising
Ottawa Information Sessions	Citizen	CJMJ-fm
Ottawa Discussion Session	Citizen	CJMJ-fm
Owen Sound Information Session	Sun Times	CFOS-am
Owen Sound Discussion Session	Sun Times	CFOS-am
Pembroke Information Sessions	Daily Observer	CJMJ-fm
Pembroke Discussion Session	Daily Observer Eganville Leader North Renfrew Times	CJMJ-fm
Pickering Information Sessions	News Advertiser	CFMJ CFTR 680 News CKRB CKFM
Pickering Discussion Session	News Advertiser	CFMJ CFTR 680 News CKRB CKFM
Pinawa Information Sessions	Lac du Bonnet	CFWM-fm
Pinawa Discussion Sessions	Lac du Bonnet	CFWM-fm
Québec City Information Sessions	Le Soleil	CITI-fm
Québec City Discussion Session	Le Soleil	CITI-fm
Regina Information Sessions	Leader Post	CKCK-fm
Regina Discussion Session	Leader Post	CKCK-fm
Rivière-du-Loup Information Sessions	L'Info Dimanche	CIEL
Riviere-du-Loup Discussion Session	L'Info Dimanche	CIEL
Rouyn-Noranda Information Sessions	La Frontiere	CJFM-fm
Rouyn-Noranda Discussion Session	La Frontiere	CJFM-fm
Sept Iles Information Sessions	Le Nord East-Plus	CKCN-fm
Sept Iles Discussion Session	Le Nord East-Plus	CKCN-fm
St. John's Information Sessions	Telegraph Journal	VOCM+
St. John's Discussion Session	Telegraph Journal	VOCM+
Sudbury Information Sessions	Sudbury Star	CJMX-fm
Sudbury Discussion Session	Sudbury Star	CJMX-fm
Thunder Bay Information Sessions	Chronicle Journal	CKPR-am
Thunder Bay Discussion Session	Chronicle Journal	CKPR-am
Timmins Information Sessions	Daily Press	CKGB-fm
Timmins Discussion Session	Daily Press	CKGB-fm
Toronto Information Sessions	Toronto Star	CFMJ CFTR 680 News CKRB CKFM
Toronto Discussion Session	Toronto Star	CFMJ CFTR 680 News CKRB CKFM
Vancouver Information Sessions	Vancouver Sun	CKNW-am

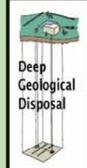
Session	Newspaper Advertising	Radio Advertising
Whitehorse Information Session	Whitehorse Star	CKRW-am
Whitehorse Discussion Sessions	Whitehorse Star	CKRW-am
Winnipeg Information Sessions	Free Press	CJOB-am
Winnipeg Discussion Session	Free Press	CJOB-am
Yellowknife Information Sessions	Yellownifer	CJCD-fm
Yellowknife Discussion Session	Yellownifer	CJCD-fm

APPENDIX I: Workbook and Questionnaire

ADVANTAGES AND LIMITATIONS OF EACH MANAGEMENT OPTION

	Advantages	Limitations
Storage at Reactor Sites 	• No transportation required • Existing on-site nuclear expertise • Communities familiar with nuclear facilities including used fuel storage • Able to monitor and adapt • Science and technology are well in hand	• Ongoing administrative controls and costs • Sites were not selected based on suitability for long-term used fuel management • Involves multiple sites • The used nuclear fuel remains hazardous long after the reactors are decommissioned • Waste would be stored close to bodies of water

	Advantages	Limitations
Centralized Storage 	• Decision based on suitability for long-term nuclear fuel management • Siting can be achieved with community participation • Shallow below-ground storage eliminates some security concerns • Science and technology are well in-hand	• Ongoing administrative controls and costs • Community participation in site selection could be contentious • Transportation of used fuel carries risks and costs

	Advantages	Limitations
Deep Geological Disposal 	• Reduces ongoing administrative controls and costs • Site selection based on suitability for long-term used fuel management • After closure, long-term financial resources and oversight not required • Siting can be achieved with community participation • Intrinsic geologic features, combined with engineered features isolate the fuel from the envrionment for a long period of time • Reduces security concerns before and after closure	• Performance has not been tested over thousands of years • Monitoring would be difficult • Adaptability and flexibility are reduced; retrieval is more costly and hazardous • Siting options are limited because of the required geological features • Community participation in site selection could be contentious • Transportation of used fuel carries risks and costs

IMPLEMENTATION CONSIDERATIONS

The public and experts alike say that an acceptable management approach must:

- Begin to be implemented now, while ensuring an openness to new learning
- Be adaptable to adjust direction
- Take a staged approach that provides for reviews and adjustments
- Provide opportunities for future generations to influence its implementation
- Include monitoring of research, at home and abroad
- Involve transparent and accountable institutions
- Ensure that citizens remain informed and have a voice
- Understand concerns of affected regions and communities
- Have strong and independent oversight institutions

NEXT STEPS FOR NWMO

The NWMO will:

- Continue its dialogue with Canadians
- Continue the comparitive assessment of management approaches
- Examine in more depth issues such as transportation, security and financial considerations
- Develop implementation plans responsive to the expectations of Canadians
- Issue a Draft Study Report, with draft recommendations in early 2005
- Invite further public input before finalizing the study report in November 2005

nwmo
NUCLEAR WASTE MANAGEMENT ORGANIZATION
SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

Understanding the Choices

Workbook

Please provide your views in the enclosed questionnaire

Fall 2004

To make further submissions or share your comments on Discussion Document #2, please visit our website at www.nwmo.ca or call 1.800.349.4859

nwmo
NUCLEAR WASTE MANAGEMENT ORGANIZATION
SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

INTRODUCTION

For decades, Canadians have benefited from nuclear energy. Currently nuclear fuel that has been used to generate electricity is safely stored at the reactor sites where it is produced. However, this form of storage was never intended to last more than 50 to 100 years.



Interim Storage



Fuel Bundle

What is Used Nuclear Fuel?

Used nuclear fuel is created in the process of generating electricity through the use of nuclear energy. One fuel bundle, composed of rods containing uranium pellets, provides enough electricity for 100 homes for one year (one million kilowatt hours).

Since the beginning of its nuclear program, Canada has produced about 1.8 million used nuclear fuel bundles. Used nuclear fuel remains highly radioactive for a very long time. Unless it is properly managed it can be dangerous to people and the environment.

In 2002, 13% of all electricity generated in Canada was nuclear. Ontario is the largest producer of nuclear electricity in Canada, with 20 nuclear reactors at three generating stations at Kincardine, Clarington and Pickering. New Brunswick (Point Lepreau) and Quebec (Bécancour) each have one nuclear reactor for electricity generation.

THE NUCLEAR WASTE MANAGEMENT ORGANIZATION

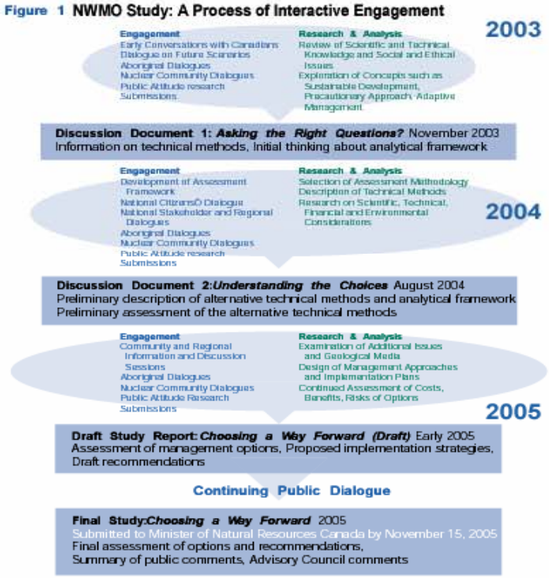
The Nuclear Waste Management Organization (NWMO) was established in 2002 in response to the Nuclear Fuel Waste Act, to conduct a comprehensive study of approaches for the long-term management of used nuclear fuel. The NWMO is required by the legislation to provide a recommended approach to the Government of Canada by November 15, 2005.

The NWMO must, at a minimum, study approaches based on three technical methods: deep geologic disposal, centralized storage - above or below ground, and reactor site storage.

The NWMO has committed to develop collaboratively with Canadians a management approach for the long-term care of Canada's used nuclear fuel that is socially acceptable, technically sound, environmentally responsible and economically feasible.

The NWMO study, while informed by scientific and technical rigour, is guided by the values of Canadians. It also incorporates ethical and socio-economic considerations, traditional knowledge and Aboriginal perspectives, and economic concerns. To understand society's perspectives on these issues, the NWMO has engaged citizens, interested groups and experts to shape the study from the outset. The NWMO study process, schedule and examples of engagement activities are outlined in Figure 1.

Figure 1 NWMO Study: A Process of Interactive Engagement



THREE NWMO DISCUSSION DOCUMENTS

To chart the progress of the study, and to engage citizens at key stages, the NWMO is producing three milestone documents:

Discussion Document 1. *Asking the Right Questions?*

The first discussion document *Asking the Right Questions?* provided an invitation for Canadians to reflect on the complex issues posed by used nuclear fuel and provide their perspectives on how approaches for its long-term management should be evaluated. The document outlined the questions which NWMO proposed to ask and answer in the study and asked Canadians, "Are we asking the right questions? This document is available at **www.nwmo.ca**



Discussion Document 2. *Understanding the Choices*

The NWMO's second discussion document, *Understanding the Choices* was issued in September 2004. The document:

- Reports what the NWMO has learned from citizens and experts thus far;
- Describes what the management options being studied might look like;
- Outlines how the framework to assess them has evolved; and,
- Presents a preliminary assessment of the approaches for public discussion.

The discussion document reports on the findings from a National Citizens' Dialogue during which a cross-section of Canadians discussed the fundamental principles or values which should guide decisions about used nuclear fuel over the long-term. The discussion document also highlights the work of a multi-disciplinary team which was charged with developing an assessment framework based on the values and ethical principles identified by Canadians. To obtain a copy of Discussion Document 2, please send an e-mail to: **info@nwmo.ca**, or call **1-800-349-4859**.



Draft Study Report: *Choosing a Way Forward*

The draft study report will describe the final NWMO recommendations in draft form. It will be offered for in-depth public review and comment as the NWMO prepares its formal study and recommendations, **Choosing a Way Forward** will be released in early 2005.

This Workbook is part of the Engagement Program on Discussion Document 2. The NWMO is asking citizens: Does the assessment framework fully capture the key priorities and perspectives of Canadians; What are the strengths and limitations of the management approaches; and What should an implementation plan include?

THE ASSESSMENT FRAMEWORK

Based on the views of citizens and experts, the NWMO is proposing a framework for assessing the management approaches



THE THREE MANAGEMENT OPTIONS

Storage at Reactor Sites

Long-term storage at existing reactor sites would involve establishing new, long-term dry storage facilities at each of the seven existing reactor sites in Canada.



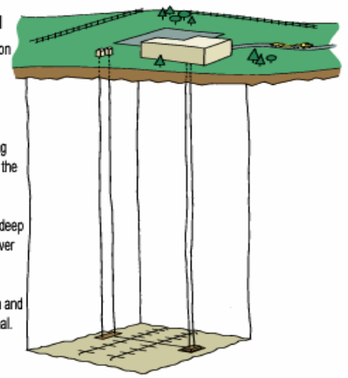
Used fuel would be transferred from the existing interim storage facilities to newly designed storage containers and storage facilities designed to last between 100 and 300 years.

All reactor site extended storage options include an ongoing program of regular replacement and refurbishing activities.

There are both surface and below-surface design options for reactor site storage, involving the use of casks, vaults and/or silos.

Deep Geologic Disposal

Deep geologic disposal involves construction of an engineered repository located on the Canadian Shield at a depth of 500 to 1000 metres.



Used fuel would be transferred from existing interim storage facilities and transported to the deep geological repository.

Once all the used fuel is transferred to the deep geological repository, it will be monitored over time prior to final backfilling and sealing.

Following closure, maintenance, inspection and security-related operations would be minimal.

Centralized Storage

Centralized storage involves creating new, long-term storage facilities at one site in Canada, above or below ground.

Used fuel would be transferred from the existing interim storage facilities to newly designed facilities, above or below ground.

Once all of the used fuel is transferred to the long-term storage facility, ongoing maintenance, inspection and security systems would be required.



Above Ground



Below Ground

NUCLEAR WASTE MANAGEMENT ORGANIZATION
SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

Questionnaire

The workbook provides some background information on the Nuclear Waste Management Organization (NWMO) study to develop and recommend a long-term approach for the management of Canada's used nuclear fuel.

The workbook contains two portions:

1) ***A background document on the NWMO and its Discussion Document:*** **Understanding the Choices**
2) ***A four-page questionnaire portion for your feedback***

Once you have read the information in the workbook, please fill in your responses to the questions.

After completing the questions, you may either:

- ***Mail the completed questionnaire in the postage-paid envelope to:***
  7501 Keele Street, Suite 300
  Concord, ON
  L4K 1Y2

- ***Fax the completed questionnaire to: 905.660.7812***

If you would prefer to fill in the questionnaire on-line, visit www.nwmo.ca

If you would like a copy of Discussion Document 2:
Phone: 1.800.349.4859
Website: www.nwmo.ca

Contact Information (optional):

Name:_____

Affiliation: (if any) _____

Address: _____

City:_____Postal Code_____

Telephone:(_____)_____Fax:_____

Email: _____

1. **What are your thoughts on the strengths and weaknesses of each management approach: deep geological disposal; centralized storage; and reactor site storage?**

1a. STORAGE AT REACTOR SITES	
Advantages	**Limitations**

1b. DEEP GEOLOGIC DISPOSAL	
Advantages	**Limitations**

1c. CENTRALIZED STORAGE	
Advantages	**Limitations**

2. Is the assessment framework comprehensive and balanced? Are there gaps, and if so, what do we need to add?

3. Are there specific elements that you feel must be built into an implementation plan? What are your thoughts on what a phased approach must include?

4. Please provide additional comments you may have on the information provided in Discussion Document 2: *Understanding the Choices*