

NWMO Citizen Panels Report, Phase III: Panel Two

NWMO SR-2008-12

July 2008

Navigator Ltd.

nwmo

NUCLEAR WASTE
MANAGEMENT
ORGANIZATION

SOCIÉTÉ DE GESTION
DES DÉCHETS
NUCLÉAIRES



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Nuclear Waste Management Organization

The Nuclear Waste Management Organization (NWMO) was established in 2002 by Ontario Power Generation Inc., Hydro- Québec and New Brunswick Power Corporation in accordance with the *Nuclear Fuel Waste Act (NFWA)* to assume responsibility for the long-term management of Canada's used nuclear fuel.

NWMO's first mandate was to study options for the long-term management of used nuclear fuel. On June 14, 2007, the Government of Canada selected the NWMO's recommendation for Adaptive Phased Management (APM). The NWMO now has the mandate to implement the Government's decision.

Technically, Adaptive Phased Management (APM) has as its end-point the isolation and containment of used nuclear fuel in a deep repository constructed in a suitable rock formation. Collaboration, continuous learning and adaptability will underpin our implementation of the plan which will unfold over many decades, subject to extensive oversight and regulatory approvals.

NWMO Social Research

The objective of the social research program is to assist the NWMO, and interested citizens and organizations, in exploring and understanding the social issues and concerns associated with the implementation of Adaptive Phased Management. The program is also intended to support the adoption of appropriate processes and techniques to engage potentially affected citizens in decision-making.

The social research program is intended to be a support to NWMO's ongoing dialogue and collaboration activities, including work to engage potentially affected citizens in near term visioning of the implementation process going forward, long term visioning and the development of decision-making processes to be used into the future. The program includes work to learn from the experience of others through examination of case studies and conversation with those involved in similar processes both in Canada and abroad. NWMO's social research is expected to engage a wide variety of specialists and explore a variety of perspectives on key issues of concern. The nature and conduct of this work is expected to change over time, as best practices evolve and as interested citizens and organizations identify the issues of most interest and concern throughout the implementation of Adaptive Phased Management.

Disclaimer:

This report does not necessarily reflect the views or position of the Nuclear Waste Management Organization, its directors, officers, employees and agents (the "NWMO") and unless otherwise specifically stated, is made available to the public by the NWMO for information only. The contents of this report reflect the views of the author(s) who are solely responsible for the text and its conclusions as well as the accuracy of any data used in its creation. The NWMO does not make any warranty, express or implied, or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of any information disclosed, or represent that the use of any information would not infringe privately owned rights. Any reference to a specific commercial product, process or service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement, recommendation, or preference by NWMO.



NAVIGATOR

NWMO Citizen Panel Report Montreal, Quebec

NUCLEAR WASTE MANAGEMENT ORGANIZATION
MONTREAL, QUEBEC CITIZEN PANEL REPORT
JULY 2008

WHAT ARE CITIZEN PANELS?

Building on previous qualitative research studies, the NWMO contracted Navigator to initiate Citizen Panels in 8 cities across Canada. The goal of the Citizen Panel project was to further explore the feelings, attitudes and perceptions of Canadians toward the long-term storage of Canada's used nuclear fuel.

The Citizen Panel project is markedly different from the qualitative research projects that have preceded it. The intent of the Citizen Panel format used in this project is to allow for the discussion to be formed and driven by the views of the individual Panelists. These Panelists have had a brief introduction to the NWMO and are aware of rudimentary facts surrounding Canada's used nuclear fuel such that an informed discussion can occur.

Phase Three of the Citizen Panel project occurred in Montreal, Quebec in April 2008.

WHAT IS NAVIGATOR?

Navigator is a research-based public affairs firm that works with companies, organizations and governments involved in the public policy field.

Navigator has grown to become a diverse firm with consultants from a variety of backgrounds who have excelled in the fields of journalism, public opinion research, politics, marketing and law.

Our strategic approach can be summed up as: *“Research. Strategy. Results.”*

PANEL REPORT OUTLINE

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 - iii. Review, Adjust and Validate Plans
 - iv. Collaborative Design and Initiation of a Siting Process
 - v. Others as available
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 - II. Governance Structure
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1. NWMO CITIZEN PANEL BACKGROUND

a. Citizen Panel

The Montreal, Quebec Phase Three Citizen Panel was held on April 23, 2008 at Leger Marketing, a neutral third party facility in Montreal.

The Panel was held over three hours from 6PM – 9PM with 17 Panelists in attendance. Jaime Watt, a Navigator research professional, acted as Discussion Leader.

A general outline of discussion objectives, as well as a discussion document intended to guide the work of the Panel were prepared in advance of the Citizen Panel. Reproductions of the document shown to the Panel can be found at the end of this report as appendices.


















b. Panelist Profile

In order to ensure that Panelists speak openly and freely over the course of this research, the individual identities of Panelists will remain protected and not revealed to the NWMO at any point of the project. Contact with Panelists is managed exclusively by a dedicated Panel Manager and each Panelist has been given an identifier code to ensure anonymity in all accessible Panel documents. All personal information and contact reports are stored separately and controlled by the Panel Manager.

While verbatim comments are used through this report, the identification will be only by Panel or by unique Panelist identifier code, but never by name.

Panelists have agreed to offer additional information, including their gender and one additional fact about their lives to make the Panel reporting richer for the reader.

Below are the profiles of the Montreal Panelists by Panelist identifier code:

	City: Montreal Age: 55-64 Gender: Male Occupation: Self-employed, information		City: Montreal Age: 45-54 Gender: Female Occupation: Employed, placement counsellor
Panelist: M-1A		Panelist: M-3A	
	City: Montreal Age: 25-34 Gender: Male Occupation: Employed, technology.		City: Montreal Age: 35-44 Gender: Male Occupation: Employed, architect
Panelist: M-5A		Panelist: M-6A	
	City: Montreal Age: 45-54 Gender: Female Occupation: Unemployed		City: Montreal Age: 45-54 Gender: Female Occupation: Self-employed
Panelist: M-7A		Panelist: M-8A	
	City: Montreal Age: N/A Gender: Male Occupation: N/A		City: Montreal Age: 65+ Gender: Female Occupation: Retired
Panelist: M-10A		Panelist: M-11A	
	City: Montreal Age: 55-64 Gender: Female Occupation: Employed, work security commission		City: Montreal Age: 18-24 Gender: Male Occupation: Employed, financial analyst
Panelist: M-12A		Panelist: M-13A	
	City: Montreal Age: 35-44 Gender: Male Occupation: Employed, information analyst		City: Montreal Age: Female Gender: 45-54 Occupation: Employed, homeopath
Panelist: M-14A		Panelist: M-15A	
	City: Montreal Age: 65+ Gender: Male Occupation: Self-employed, artist		City: Montreal Age: 35-44 Gender: Female Occupation: N/A
Panelist: M-16A		Panelist: M-17A	
	City: Montreal Age: 45-54 Gender: Male Occupation: Employed, entertainer		City: Montreal Age: N/A Gender: Female Occupation: N/A
Panelist: M-19A		Panelist: M-20A	
	City: Montreal Age: 35-44 Gender: Male Occupation: Student		
Panelist: M-9A			

c. Panel Methodology

These Citizen Panels have been designed, as much as possible, as collaborative discussions facilitated by a Discussion Leader. They are separate and apart from focus groups in that they empower individual Panelists to raise questions and introduce new topics. The role of the Discussion Leader, in this format, is merely to introduce new topics of discussion and lead the Panel through a number of discussion exercises.

As well, additional measures were incorporated into this Citizen Panel format to empower individual Panelists. Each Panelist was made aware of their independence and responsibilities to both contribute to, and lead, the Panel discussion. A transcriber, traditionally taking contemporaneous notes behind one-way glass or in another room, was, in this case, placed inside the discussion room. Panelists were empowered to direct him or her to take special note of elements of the Panel discussion they felt were important, or ask him or her to recap any part of the discussion upon request. A commitment was made by the Discussion Leader that the notes taken would be sent to Panelists for review, possible revision and approval, to give Panelists faith that they are in control of the proceedings and ensure their contribution is reflected accurately.

Potential Panelists were originally selected through random digit dialling among a general population sample in the wide area in which each Panel was held. Individuals called underwent a standard research screening survey in which they indicated that they were interested and able to participate in a discussion about a general public policy issue with no advance notice of the specific topic. Individuals were screened to include community-engaged opinion leaders in at least one of these topics: community, environment, and/or public/social issues. Those that passed the screening process were asked to participate in a traditional focus group on the perceived trust and credibility of the NWMO, which allowed an introduction to the topic of used nuclear fuel and topics such as Adaptive Phased Management. The discussions were neutral in tone and did not presuppose any outcome on issues such as nuclear power generation and siting for used nuclear fuel.

At the end of this research study, participants were asked if they would be willing to continue in discussions on the topic of used nuclear fuel. Those that expressed interest were placed on a “short list” of potential Panelists for the four-phased Citizen Panel project. Research professionals at Navigator subsequently used this pool to select Panelists that would ensure a diversity of age, gender and experience in the Panels. Only participants who demonstrated both a willingness and ability to contribute to group discussion and complete exercises were included in the pool. The content of each participant’s contribution in the focus groups was not reviewed by Navigator professionals. Rather, the only qualifiers were that individuals could speak clearly and were able to grasp concepts introduced to them at a basic level.

A target Panel population of 18 was determined for each location in the interest of ensuring the long-term viability of each Panel over the course of four discussions.

Phase One Citizen Panels occurred in late Fall 2007. Panel discussions began with an in-depth review of the NWMO's *Moving Forward Together* brochure. Individually, Panelists were asked to mark the document with red and green pens, green indicating they felt positively about a certain point and red indicating that they felt negatively. Furthermore, Panelists were asked to circle the items they felt the most strongly about, both positively and negatively, with the "Sharpie" marker. Panelists were then asked to write down what they thought about the brochure, what they would say about the brochure and how the brochure made them feel. This metaphorical or projective exercise was an attempt to get a more nuanced view of the brochure and to have Panelists share some of their internal reservations they may have been holding back from the Panel. Following the "Think, feel, say" exercise, Panelists reviewed the NWMO's strategic objectives and were asked to rate how important each strategic objective was to them, as well as how appropriate the particular objective was to them. Lastly, Panelists were provided with an excerpt of the draft NWMO's draft approach to transparency. The exercise was introduced with a reminder to Panelists about the frequency with which they raised the issue of transparency as an important pursuit and focus for the NWMO in the previous research phase of the study. Panelists were asked to discuss whether or not the NWMO's proposed approach to transparency met with their general expectations. At the conclusion of the Panels, Panelists were provided with post-session work (homework) to complete following the Citizen Panel. The work consisted of a simple seven question survey to be completed after a brief review of the NWMO website. Those without any access or ability to use the internet were exempted from the exercise.

Although successful in terms of the richness of data collected in all 8 Panel locations, it was clear upon completion of the Panels that it would be necessary to hold Supplementary Citizen Panels in four locations (Toronto, Montreal, Regina and Sault Ste. Marie) due to smaller than expected Panel populations, as well as a difficulty experienced by some Panelists to honour their commitment to attend, as was confirmed on the day of the Panel.

Supplementary Citizen Panels occurred in early January 2008 and consisted of 6 new recruits, selected by random digit dialling, to replicate the experience by which all other Panelists had been selected. New recruits were sent a reading package in advance and then had a one hour "lobby" session immediately prior to the Supplementary Citizen Panel. This session replicated a condensed version of the Preparatory Phase research and allowed for any questions Panelists might have had about the NWMO. Following the "lobby" session, the Supplementary Citizen Panel continued, adding Panelists who had confirmed but, for a myriad of reasons, could not participate in the Phase One Citizen Panels.

Following the completion of the Supplementary Citizen Panels, those that demonstrated a willingness and ability to continue were added to the pool for Phase Two Citizen Panels.

Phase Two Panels occurred in mid-to-late January 2008. The Panel discussion began with the Discussion Leader asking Panelists if they had thought any more about the NWMO since the last Panel, or if they had just gone back to their daily routines and not given the organization much additional thought. The Discussion Leader then distributed a

document for discussion, the Executive Summary of the NWMO's study *Choosing a Way Forward: The Future Management of Canada's Used Nuclear Fuel*. The document was given both individual consideration, as well as collective consideration. Individually, Panelists were asked to mark the documents with red and green pens, green indicating they felt a certain point was helpful to their understanding and red indicating that they did not find the point helpful. The intent of the individual document review was to serve as a launching point for further collective consideration and discussion of the more complex strategic objectives of the NWMO. The Panel discussion concluded with Panelists reviewing the answers provided by the NWMO to the questions Panelists had posted in the Parking Lot in Phase One.

Again, Panels were successful in the richness of the data gathered. Furthermore, Panelists have begun to demonstrate a higher degree of ownership in the process with impressive attendance, commitment to the discussion and, in some cases, engaging in extra work, such as assembling their thoughts on paper and seeking out additional information.

Phase Three Panels occurred in late April and early May 2008. Unlike previous Panels, Phase Three Panels were divided into two parts: a discussion portion and a question and answer portion with a technical representative from the NWMO.

The discussion portion of the Panel began with a general discussion on Panelists' thoughts, if any, on the NWMO since the last Panel session and then turned to the Draft Implementation Plan that had been distributed to Panelists upon their arrival. Similar to Phase Two, the document was not reviewed by Panelists but, rather, used to inform Panel discussion on the NWMO's strategic objectives. Although Panelists were given an opportunity to comment on all objectives, as well as the document as a whole, they were asked to concentrate specifically on four of the seven NWMO strategic objectives: Building Relationships; Building Knowledge: Technical and Social Research; Review, Adjust and Validate Plans; and Collaborative Design and Initiation of a Siting Process. These objectives were rated by Panelists in Phase One as highly appropriate and important for the NWMO. For each strategic objective, Panelists were given a summary that outlined items the NWMO plans to implement over the next five years (2008-2012) and asked for their feedback; specifically whether they felt the NWMO was moving in the right direction with these plans and whether they felt that anything important had been overlooked.

Due to a timing issue in Montreal, Montreal Panelists were only able to concentrate on three of the seven strategic objectives during the Panel discussion: Building Relationships; Building Knowledge: Technical and Social Research; and Review, Adjust and Validate Plans. As a result, all Montreal Panelists present for the Phase Three Panel discussion were contacted by the Francophone Panel Manager to schedule an in depth interview to discuss the remaining objectives not covered in the Panel: Collaborative Design and Initiation of a Siting Process; as well as Financial Surety, Governance Structure and Building an Implementing Organization. Panelists scheduled for the individual in-depth interviews were provided with a copy of the Implementation Plan in advance of the discussion and, as was the case in the Panel discussion, were given a chance to provide their feedback on the objectives outlined above.

Once the discussion on the Draft Implementation Plan was complete, in seven of the eight Panel discussions, a technical representative from the NWMO was invited into the Panel discussion for a question and answer session. This was not the case in Saint John, New Brunswick, where the technical representative from the NWMO was brought into the Panel prior to the discussion of the Draft Implementation Plan. All eight Panel discussions concluded with a wrap-up discussion, including feedback on the question and answer portion of the discussion.

This Panel Report is, to the best of Navigator's abilities, a faithful rendering of the discussion held in Montreal and stands alone as a record of the Citizen Panel discussion on April 23, 2008. A larger Aggregate Report on this wave of Panel discussions, including the Panels in Kingston, Toronto, Sault Ste. Marie, Scarborough, Saint John, Saskatoon, and Regina has also been submitted to the NWMO.

2. DIALOGUE: DRAFT IMPLEMENTATION PLAN

a. Overview

During this Phase of Citizen Panels, the NWMO's Draft Implementation Plan was reviewed by Montreal Panelists in advance of a general discussion beginning. While a significant amount of Panel discussion was directly related to the four strategic objectives identified by Panelists in Phase One Panels as most important and appropriate for the NWMO, there was time dedicated for a more general discussion of the Draft Implementation Plan among Panelists.

The Draft Implementation Plan was fairly well-received by Montreal Panelists. Montreal Panelists had a great deal of feedback and were generally pleased with the direction the NWMO intends to take over the next five years. In the words of one Montreal Panelist,

Yes, I think they're headed in the right direction. The document has a lot of information – useful information.

Another Montreal Panelist was quite pleased with what they perceived to be the NWMO taking thoughts and input provided by fellow Panelists in previous Panel discussions into consideration,

I think this is good. I think this addresses a lot of what we were talking about earlier about how people are generally not well informed...

Some Montreal Panelists made occasional comments about the overall subject matter being complicated and, at times, felt wording used was not entirely clear. According to one Montreal Panelist,

They're addressing some of the elements we brought up last time. But I still feel like some of the vocabulary they use is a bit unclear to me – it's not quite easy to understand. So, in terms of accessibility, I think they could still stand to make things a bit easier for us.

Some Panelists struggled with terms unfamiliar to them, such as “corporate citizenship program” and “hydride cracking.” These Panelists voiced a desire to see the NWMO use more simplified terms that would appeal to more of a mass audience who may or may not have any knowledge of the organization or the subject matter.

A number of Montreal Panelists voiced a desire to see the NWMO make an effort to increase its public profile. There were various comments from Panelists about the fact that those that they speak with about the NWMO are not at all familiar with the organization, as well that they had never heard of the organization before they began the Citizen Panel process and that the NWMO seems to have little to no media presence.

As stated by one Montreal Panelist,

...they must increase their profile because, as it stands, they do not have a very great presence in the public eye.

Education was a prominent theme in the Montreal Panel discussion, specifically in reference to educating youth. A number of Panelists felt that, as today's youth are the ones that will inherit the process, it is imperative that the NWMO make a proactive effort to educate and engage youth as they move forward. In the words of one Panelist,

...they mention youth in 2008 but they don't appear after under the 2008-2012 period and that's strange because, if anything, it's the youth of today who are going to inherit this problem and who are going to have to live with whatever it is we do with our nuclear waste. So, I think it's important to list youth again.

Some Montreal Panelists stressed the need for the NWMO to take proactive measures to educate the general public as well on both itself as an organization and Adaptive Phased Management. These Panelists felt the onus was on the NWMO to educate and inform the public, rather than on the public to educate themselves. However, not all Panelists agreed with this point of view. One Panelist felt that the NWMO was already making an effort and that the onus was on the public to seek out information that, in their opinion, was readily available. In the words of this Panelist,

But you have to take some initiative yourself. For instance, If you go on their website, there are plenty of informational materials you can order and they'll send it to you, so you can't say they don't try...it's all there, you just have to be willing to sit down and sift through it all.

Transportation was raised by a number of Montreal Panelists. As was seen in other Panel discussions, an underlying theme in the transportation discussion between Montreal Panelists was safety, specifically how safety would or could be planned for. This stemmed largely from the self-admitted nervousness of a number of Panelists due to the frequency with which transportation accidents occur within their own lives. In the words of one Montreal Panelist,

...I think it's the transportation of nuclear waste that makes people more nervous than anything because that's where the most potential exists for an accident. That being said, the longer the distance that has to be covered for transport and the more difficult it is to access the storage site – bad roads, poor weather conditions, etc. – the more dangerous it is and the greater the risk for a catastrophic event. So, it's transport that's really the problem.

A number of Montreal Panelists expressed some scepticism of the NWMO's repeated mention of Aboriginal Peoples in their materials. Some Panelists wondered why Aboriginal Peoples have and continue to have a considerable presence in NWMO documentation, as articulated by one Montreal Panelist,

My comment is about aboriginals and how they seem to have just as great a presence in this plan as they did in earlier documents we reviewed during previous meetings and I still don't understand why.

Other Panelists wondered if the consistent mention of Aboriginal Peoples in NWMO materials signalled the organization's intention to target aboriginal land for long-term storage,

My question is are they considering disposing...the nuclear waste on aboriginal land because they seem to be consulting the aboriginals in an extraordinarily intense manner and it would make sense because they usually live in quite remote territories.

However, one Panelist was not as sceptical. Rather, this Panelist felt the mention of Aboriginal Peoples was merely the NWMO identifying one of many groups and organizations they intend to target and provide opportunities to offer feedback as it moves forward,

I don't think there's a particularly skewed focus on aboriginal communities. In fact, they have quite an extensive list of targeted groups to be involved in the process, including citizens, regional and community-based organizations, interest groups, researchers, industry, governments, and then general public...I think that shows a real, genuine effort on their part to include everybody and to disseminate the information as widely as possible.

Lastly, the inherent flexibility offered by APM was well-received by a number of Montreal Panelists. The knowledge that steps could be retraced and new technologies accommodated was comforting to a number of Panelists, including this Montreal Panelist who said the following,

I think it's a good idea to have this built into the plan, to have the flexibility to re-evaluate the plan in light of changing external realities and such in order to stay on the right track and remain headed in the right direction.

b. Strategic Objectives

For each strategic objective, Panelists were given a colour-coded worksheet outlining items the NWMO plans to implement over the next five years (2008-2012). A more comprehensive overview of each objective in the Draft Implementation Plan document was flagged with the same colour of the worksheet for quick reference should Panelists have wanted or required more information. After reviewing each of the four objectives, Panelists were asked for their feedback; specifically whether they felt the NWMO was moving in the right direction with these plans and whether they felt that anything important had been overlooked.

After reviewing and discussing the four objectives mentioned above, Panelists were provided with an opportunity to provide feedback on the remaining three objectives: Financial Surety, Governance Structure and Building an Implementing Organization. Panelists were asked by the Discussion Leader if any of the remaining objectives now struck them as more important, given the increase in their knowledge on the subject matter since Phase One.

Below, please find contemporaneous notes of the Panel discussion on the strategic objectives.

Please note that due to a timing issue in Montreal, Montreal Panelists were only able to concentrate on three of the seven strategic objectives during the Panel discussion: Building Relationships; Building Knowledge: Technical and Social Research; and Review, Adjust and Validate Plans. As a result, contemporaneous notes only cover discussions on these three objectives. Individual in-depth interviews were done with Montreal Panelists, allowing them to provide feedback on the remaining objectives and the findings from those interviews were aggregated in the overall report and are represented throughout.

c. Panel Notes

i. Disclaimer

The attached are contemporaneous notes of the Panel discussion on the Draft Implementation Plan and strategic objectives. The notes were taken by a transcriber positioned in the room with the Panelists. The transcriber was taking direction from the Citizen Panel on specific points of interest. The following is not an official transcript, but a best effort to capture the sense of discussion with some granularity.

Draft Implementation Plan Discussion

Discussion Leader:

What I'd like to do tonight is focus on four of the seven main strategic objectives established by the NWMO. You should already be familiar with these objectives as they have been discussed during previous panel meetings. I am going to distribute a worksheet that I would like you to review. Take a minute to read it and then we'll discuss what you think.

Building Relationships

Discussion Leader:

So, based on what you've read so far, do you think that plans are moving in the right direction? Do you feel that any planned action or activity is particularly appropriate or inappropriate?

M-5A:

Well, I see that they're going to great lengths to forge a relationship with aboriginals, but they seem to not want to have anything to do with environmentalists. But that seems a bit strange to me because I think if they're really interested in doing things the right way, they should probably be open to what environmental groups have to say too.

M-9A:

I don't think rebuilding the website is really a worthwhile activity. Maybe I'd need to check out their website to see what they're talking about when they say they want to enhance accessibility, but just intuitively it seems to me that this is not very important. That's just my opinion.

M-19A:

I think this is good. I think this addresses a lot of what we were talking about earlier about how people are generally not well informed about all

this. But as M-5A was saying, what's missing is the presence of environmentalists. I actually think there should be environmentalists within the NWMO working together with the scientists and researchers and technical people.

M-13A: Yeah, but “interest groups” and “interested organizations” – doesn't that imply environmentalists? It says “maintain protocols with interested organizations” and to me that suggests the involvement of environmental groups, among others.

M-20A: I didn't understand “establish a corporate citizenship program.” That wasn't clear to me. What exactly do they mean? And they mention youth in 2008, but they don't appear later under the 2008-2012 period and that's strange because, if anything, it's the youth of today who are going to inherit this problem and who are going to have to live with whatever it is we do with our nuclear waste. So, I think it's important to list youth again.

M-15A: Well, my comment is about aboriginals and how they seem to have just as great a presence in this plan as they did in earlier documents we reviewed during previous meetings and I still don't understand why. So, I'm just wondering, once again, what the deal is with all that?

M-13A: If you read over here it explains how they are required by constitutional law to consult the aboriginals. It explains why.

M-15A: Really? Well, why didn't they just tell us that a long time ago? This is the first time they mention that and it would have been nice to know earlier on because it was confusing during the two previous Panels! But my question is are they considering disposing of the nuclear waste on aboriginal land because they seem to be consulting the aboriginals in an extraordinarily intense manner and it would make sense because they usually live in quite remote territories, so... And this is the third time I've asked this question, so it might be interesting to have the answer to that.

M-13A: Well, they sure won't be disposing of it in the middle of downtown Montreal!

M-17A: "Develop and implement a strategy to more effectively engage youth in the implementation of APM" – is that because they're thinking of going around and educating kids in schools? That might be a good idea.

Discussion Leader: So, you'd like to know if there are plans to educate youth through the school system about nuclear power in order to increase awareness about nuclear energy?

M-17A: Yes, and what to do with the waste that gets created from producing nuclear energy.

M-13A: I don't think there's a particularly skewed focus on aboriginal communities. In fact, they have quite an extensive list of targeted groups to be involved in the process, including citizens, regional and community-based organizations, interest groups, researchers, industry, governments and the general public, etc. and I think that shows a real, genuine effort on their part to include everybody and to disseminate the information as widely as possible. That's why, as a matter of fact, I happen to think their website is important. It's a means by which to reach people and communicate their message because nowadays people get most of their information online. And, actually, their current website is quite difficult to navigate and to understand. So, I think it is worthwhile for them to work on it and make it easier to get around – make it more user-friendly.

M-16A: As I see it, their primary objectives for 2008 are communication, education and citizen engagement and participation and that's good. However, they must increase their profile because as it stands they do not have a very great presence in the public eye. In fact, none of us here had even heard of the NWMO before participating in these sessions. So, they need to increase their presence.

M-13A: But you have to take some initiative yourself. For instance, if you go on their website there are plenty

of informational materials you can order and they'll send it to you, so you can't say they don't try. You just have to be willing to make an effort to get to know them too. And their website may not be the most user-friendly, but I've never seen an organization post as much information as they do pertaining to all the research and consultations they've done – it's incredible. So, it's all there, you just have to be willing to sit down and sift through it all.

M-16A:

But they've been in existence for five years now and they should be doing more to make themselves known by the general public at this point. I think they should do a documentary. That's a good way to reach people and to inform the public. I always watch documentaries on Radio-Canada and it's one of the main ways I get my information.

Discussion Leader:

So you think the NWMO should be making more efforts to increase their profile among the general population, including using media outlets...

M-16A:

Yes, exactly. And Radio-Canada is funded in part by the government, so they could play a major role in disseminating the message and helping people understand the issues.

Discussion Leader:

Now, just before we move on to the next objective, was there anything in what you read particularly inappropriate to you? Also, do you feel that anything important is missing?

M-14A:

I understand that the NWMO is regulated by the four nuclear provinces, but I think they should make more efforts to include all Canadian provinces into their process because who's to say that one of the other provinces won't decide to start producing nuclear power tomorrow? So, for now it's just the four, but that could easily change and I think all the provinces should be involved because we're all equally affected since we're all part of the same country.

Discussion Leader:

Anyone else? Anything else missing?

M-16A: Well, this is all fine and good and I understand what they want to do, but I don't quite see how they exactly intend on carrying out all the activities they've listed here.

Discussion Leader: So, if I understand correctly, it's not clear to you how they're actually going to apply what they've laid out here in their plan and how it's actually going to unfold in the real world...

M-16A: Correct. I don't have a clear picture of how all these proposed actions will be implemented and to what extent. For example, if they plan on developing communications materials and transmitting them to the media, as well as providing regular updates to government departments and agencies, how much and how frequently? So, we have no idea about any of that – where it begins and where it ends. They'd need to quantify that more clearly.

Building Knowledge – Technical and Social Research

Discussion Leader: Let's look at the next objective: "Building Knowledge." So, again, based on what you've read, do you think that plans are moving in the right direction? Do you feel that any planned action or activity is particularly appropriate or inappropriate? Is there anything important that's missing?

M-7A: Well, the first thing I noticed is that there is a different order in the way things are presented. That is, they start with 2008-2012 and then they go to 2008 and then they talk about 2009 and 2010. I find it's a bit confusing, actually. And, I mean, just reading it like this is all fine and good and it's simple enough to understand, but you have to look at the details otherwise you're not too sure of what you just read. Like, if you look at the fifth point there are two sentences and the second sentence actually explains the first – "These agreements provide the framework, etc." – and that clarifies a lot for me. But for the rest of the points there's no secondary sentence to explain the main point and I think that's missing – it's too vague.

M-12A: I just think that as far as choosing a future site,

definitely we should consult Aboriginal Peoples for whatever proposed site is on their land. But in case they categorically refuse and decide to block those plans, we should think about having a contingency plan and selecting a secondary site that's not on aboriginal territory.

Discussion Leader:

And as far as the specific plans here with regards to building knowledge, does this seem appropriate to you?

M-12A:

Yes, it seems appropriate. The more we know on a scientific basis, the more able we are to make good decisions and go in the right direction. But there's always the issue of transport – it has to be safe and secure.

Discussion Leader:

What do you mean exactly?

M-12A:

“By June 2009 we will develop the capability to review transportation options, etc.” We just have to come up with means of transportation that are safe.

Discussion Leader:

So that's an element that's particularly important to you...

M-12A:

Yes, absolutely. I think transportation is a very important issue as far as technical knowledge goes.

M-20A:

Well, I remember from our last meeting we all pretty much agreed that it would be interesting to find out more about what's being done abroad in this area and here they mention some cooperative agreements with other countries, including France, Finland and Switzerland, and I think that's very exciting.

Discussion Leader:

So do you feel like your comments from last time were taken into consideration here?

M-20A:

Yes, exactly. They're addressing some of the elements we brought up the last time. But I still feel like some of the vocabulary they use is a bit unclear to me – it's not quite easy to understand. So, in terms of accessibility, I think they could still stand to make things a bit easier for us. That's my opinion.

Discussion Leader:

Can you give me any specific examples?

M-20A:

Yes, “by 2001 we will support safety assessment and licensing, etc.” and the other one “hydride cracking of used CANDU fuel, etc.”

Discussion Leader:

So there’s still some work to be done in terms of the language and the level of understanding...

M-20A:

Yes, it’s still a bit too technical and scientific.

M-14A:

Yes, I agree with that last point. For instance, it’s all fine and good to know that people are developing an improved model for uranium dioxide dissolution rates, but in reality the average person doesn’t really know what that means. So, again, it comes back to them throwing out these terms and concepts to us, but we don’t have the basic knowledge to truly appreciate what it all means. So, again, it’s yet another reason why we need more education. We would need to know why it’s important to study uranium dioxide rates and why it’s important to be done by the end of 2010, otherwise this point is meaningless.

M-6A:

They say that by June 2009 we will develop the capability to review transportation options, but then they go on to say something that’s kind of strange and that’s that they will be looking at sites in various locations in the four nuclear provinces. So, are we to understand that they are limiting themselves to the four nuclear provinces only for a future long-term management facility? Well, I think that might be limiting ourselves too much and, in fact, we may be shooting ourselves in the foot by not looking at and evaluating other locations across all of Canada. So, what they’re proposing here is not a good approach, I don’t think.

Discussion Leader:

So, you think limiting the search for a used fuel long-term management and storage facility to the four nuclear provinces is not a good direction...

M-6A:

No, I think it would be a better idea to go nationwide and allow for the greatest number of

possibilities for a storage site instead of just limiting ourselves to four provinces.

M-14A: Yes, but you have to look at it from the perspective of the provinces that do not currently produce nuclear power – why would they want to store our nuclear waste?

M-6A: Well, I'm thinking more of places like the Yukon and the Northwest Territories and Nunavut, places that are a lot less populated and that could potentially be interested in taking part in this project. I just think it's strange to not even consider these territories for potential storage sites.

M-12A: But that's where we get into the issue of transport and I think it's the transportation of nuclear waste that makes people more nervous than anything because that's where the most potential exists for an accident. That being said, the longer the distance that has to be covered for transport and the more difficult it is to access the storage site – bad roads, poor weather conditions, etc. – the more dangerous it is and the greater the risk for a catastrophic event. So, it's transport that's really the problem.

M-6A: I still think it's a shame to limit ourselves to the four nuclear provinces exclusively and to not even consider any other provinces that may have a potentially perfect storage location to offer.

M-1A: But you have to remember that Canada is such a large country and covers such a vast territory, even if you look at just the four nuclear provinces. I don't think a lack of good potential locations is our problem at all. I mean, take France, for example. France is tiny compared to just the province of Quebec alone and France already has a great many nuclear production sites as well as nuclear waste storage facilities. That being said, I don't think it should be a problem at all to find appropriate long-term management and storage facilities within the four nuclear provinces for the time being given the sheer size of the country and its geological composition – the Canadian Shield and all that – which is extremely stable.

M-16A: But I think if we consider nuclear power as a national resource, then we should also share the responsibility for it together as a country, including the selection of a storage site.

M-20A: There's one thing here that came up in the very first meeting we had and I still don't understand what it has to do with anything and that's "Convene workshops on Aboriginal Traditional Knowledge." I just don't see what that has to do with any of this.

Discussion Leader: So, for you this is neither relevant nor appropriate...

M-20A: Well, perhaps it's important, but they would have to explain the relevance to me because I don't get it.

Discussion Leader: Before we move on, is there anything else that's missing or that you would like to add?

M-20A: I just think that telephone surveys won't add up to much. And not everyone has access to the internet for online surveys on the web site.

Review, Adjust and Validate Plans

Discussion Leader: So, the third objective is "Review, Adjust and Validate Plans." Have a look at it and then we'll discuss what you think. Do the planned actions or activities here seem appropriate to you? Do you feel that plans are moving in the right direction, based on what you've just read?

M-5A: Yes, it's good, but I think it's somewhat redundant. That is, it's worthwhile to know that these plans will be reviewed and adjusted and modified, but they're essentially just repeating some of the activities from before and saying that they will be periodically reviewed. So, it's part of the Plan, but it's not an objective in the same sense as the other objectives and I don't think it has to be discussed in the same way as the other objectives. So, that's what I mean when I say it's a bit redundant.

M-13A: I think it's a good idea to have this built into the Plan, to have the flexibility to re-evaluate the plan in light of changing external realities and such in

order to stay on the right track and remain headed in the right direction.

M-14A: Yes, I agree. I think that flexibility is very important and I like what they say here at the top: “The NWMO will continually review, adjust and validate plans against factors such as advances in technical learning, evolving societal expectations and values, and changes in energy and environmental factors.” I think that’s a very logical way to proceed and it shows good faith on their part to have this flexibility built into their Plan.

M-13A: I agree. The only thing I had a question about was where they mention “ethicists.” Is there such a thing as an ethicist? Is that a real thing? Can you go to school and study to become an ethicist? I’ve never heard of that before and I’ve never actually met an ethicist!

M-12A: I think it’s good to report to the Minister of Natural Resources, but I think it would be even more important to have parliamentary debates in the House of Commons as well because of the greater exchange of views between the different political parties representing a wider spectrum of views than you get by just reporting to one government department.

Collaborative Design and Initiation of a Sitting Process

Discussion Leader: I’m sorry we won’t be able to review the last objective. We have to move on now to our Q & A with the NWMO representative if we want to cover everything we need to cover and if we want to stay within our allotted time this evening.

3. QUESTIONS & DISCUSSION, TECHNICAL REPRESENTATIVE

a. Explanation

Technical representatives from the NWMO were present for a question and answer session at the request of the Panelists themselves. Panelists were twice given the option to have a technical representative present at the Panel discussion but preferred to wait until Phase Three as, until this point, felt that they still had more they needed to learn and discuss so that they were able to ask informed and insightful questions.

The technical representatives had approximately 90 minutes with the Panel to offer technical insight, institutional knowledge and a corporate perspective that, to date, only been present in written materials. Panelists were able to present their questions on a “first come first serve” basis with the Discussion Leader keeping a speaker’s list to ensure all were able to address the technical representative.

Technical representatives were not permitted to view the Panel before, nor after, the question and answer session. The Panel was informed of this so that they felt comfortable being frank before and after the appearance of the technical representative and did not feel required to censor themselves fearing observations.

As was the case in all Panel discussions with the NWMO technical representative, the majority of questions posted by Montreal Panelists fit clearly into five themes: safety, site selection, timeline, international comparison and transportation. For a full analysis of each theme, please refer to the Aggregate Report.

Below, please find questions posed by Montreal Panelists to the technical representative from the NWMO.

b. Questions & Discussions

- M-15A During our first meeting, in the first document we read, it was mentioned that northern European countries like Sweden and Finland had a pretty well-developed expertise in the area of nuclear waste management. What I'd like to know is if they've already begun disposing their nuclear waste and what their level of expertise on the matter really is?
- M-15A But, essentially, their technology is presently sophisticated enough and to the point where they're able to do it, is it not? Why then don't we simply copy what they're doing? Because in reading all the documents and materials we've read so far I think we still get the impression that we're not quite there yet and that we still have to do more research and studies. So, why don't we just base ourselves on the expertise of countries like Sweden?
- M-6A But is there currently any irradiated nuclear fuel being disposed of through deep geological isolation? Have they started doing that yet?
- M-6A OK, so for the time being there aren't any anywhere...
- M-6A Are they basing themselves at all on any of the studies that have been done here already? Are they using any of those findings to develop the sites?
- M-6A So, you said that no one has started to proceed with deep geological disposal even though it has been studied since the 1970s? Nobody has begun to do deep geological disposal anywhere in the world yet? I find that surprising...
- M-10A If a disposal site is chosen on aboriginal land, do you think the government will have great difficulty in convincing them?
- M-10A I know that they use water to cool down nuclear reactors, but does that water then become

radioactive itself and what happens to it once it's been used?

M-10A Just one more question... I think I read that we'll have enough uranium for about another 125 or 150 years or so, which is about as long as oil reserves are said to last...

M-14A You say that sites are selected in so-called "consenting communities." But in a country as large as Canada with so many vast and uninhabited areas, why do we not just choose a site that's remote from any communities inhabited by people? In other words, does a disposal site really need to be close to any communities of people at all? Why not just choose a remote unpopulated area for a disposal site?

M-10A I'd just like to ask about what we were saying earlier about transportation... Is it much more complicated to transport the nuclear waste to far-off remote areas than it is to transport it to someplace closer?

M-7A Earlier you talked about the disposal of nuclear "waste" and the disposal of "irradiated nuclear fuel." What's the difference?

M-3A But you did say that some nuclear waste could be disposed of through shallow land disposal. Why is that? What's the difference?

M-14A Don't hospitals also produce some nuclear waste?

M-15A My understanding is that there is hope that this radioactive waste can one day be recyclable in the future and that's why they have to be retrievable. Have there been any advances yet or any findings in this area?

M-9A What is the risk of danger? What is the uncertainty?

M-9A And what about the risks? Is it dangerous?

M-9A Would the nuclear waste be safe from terrorist activities, for example?

- M-17A As far as environmental safety, what is the potential risk for soil contamination?
- M-7A I forget – does Adaptive Phased Management allow for the nuclear waste to be retrievable?
- M-7A Do you know if the nuclear waste being disposed of in Sweden will also be retrievable?
- M-7A Can you explain why the Swedish people have been so open to this idea of nuclear waste disposal? They haven't chosen a site yet, but you said that two communities have already offered to host the new site...
- M-20A Could it become a business activity for our government to start taking in nuclear waste from other countries and dispose of it here? Is that something that could happen?
- M-12A Have there been any studies yet looking at possible future disposal sites based on the appropriateness of geological formations across the country? Are there any sites that seem more appropriate than others at the outset?
- M-12A So there aren't any places that you would say are more appropriate than others right off the bat?
- M-14A But there are still some non-favourable areas like the Saint Lawrence Valley that are prone to earthquakes and they're not realistically going to consider a place like that...
- M-14A If a site is selected tomorrow, let's say, how long will it take before a repository is built and ready to be used?
- M-12A If APM is Plan A, what's Plan B if the Canadian population decides they don't want any part of it?
- M-15A Have the environmentalists stepped forward yet and what have been their reactions so far? Have they objected?

M-15A

But technically speaking, what could the environmentalists take issue with as far as the approach?

M-9A

Do you believe that nuclear energy is going to be the number one source of energy of the future?

APPENDICES

- i. Navigator Personnel
- ii. Discussion Leader's Guide
- iii. Excerpts from Draft Implementation Plan

I. PERSONNEL

JAMES STEWART WATT, SENIOR DISCUSSION LEADER

Jaime Watt is Chair of Navigator, a Toronto-based research consulting firm that specializes in public opinion research, strategy and public policy development.

Prior to relocating to Toronto, he was, for ten years, Chair of Thomas Watt Advertising, a leading regional advertising agency and communications consulting firm based in London, Ontario.

A specialist in complex communications issues, Jaime has served clients in the corporate, professional services, not-for-profit and government sectors and has worked in every province in Canada, the United States, the United Kingdom, France, Central America, Korea and Kosovo.

He currently serves as Chair of Casey House, Canada's pioneer AIDS hospice, as well as Casey House Foundation and is a Vice President of the Albany Club. He is a director of the Dominion Institute, Woodrow Wilson Center's Canada Institute, TD Canada Trust's Private Giving Foundation, The Canadian Club of Toronto and The Clean Water Foundation. As well, he is a member of the President's Advisory Council for the Canadian Red Cross and is a member of the Executive Committee of Canadians for Equal Marriage. He was a founding Trustee and Co-chair of the Canadian Human Rights Trust and the Canadian Human Rights Campaign.

CHAD A. ROGERS, SUPPORTING DISCUSSION LEADER

Chad Rogers is a Consultant at Navigator providing strategic planning and public opinion research advice to government, corporate and not-for-profit clients.

He has recently returned to Canada after working abroad with the Washington, DC based National Democratic Institute as director of their programs in Kosovo and Armenia respectively. Chad oversaw multi-million dollar democracy and governance assistance programs directed at political parties, parliaments and civil society organizations in newly democratic nations. He conducted high-level training with the political leadership of Armenia, Bosnia Herzegovina, Iraq, Kyrgyzstan, Macedonia, Moldova and Serbia.

Having previously worked on Parliament Hill as both a legislative and communications

assistant to Members of Parliament and Senators, he has an in-depth knowledge of Canada's Parliament and its committees, caucuses and procedures.

He is a board member of the Kosova Democratic Institute and is a member in good standing of the Public Affairs Association of Canada (PAAC) and the Market Research & Intelligence Association (MRIA). Chad has trained at the RIVA Qualitative Research Training Institute.

COURTNEY GLEN, PROJECT MANAGER

Courtney Glen is a Consultant at Navigator assisting in public opinion research, strategic planning and public policy advice for government, corporate and not-for-profit clients.

Courtney most recently worked at the Fraser Institute as a junior policy analyst in health and pharmaceutical policy. In her time at the Institute, Courtney co-authored a major pharmaceutical policy paper and contributed to their monthly policy journal, *The Fraser Forum*.

Prior to that, Courtney worked as a researcher for the Scottish Labour Party in Edinburgh, Scotland, conducting an audit of the Parliament's Cross Party Group on International Development.

Courtney has a Masters in International and European Politics from the University of Edinburgh in Scotland and a Bachelor of Arts Honours degree in Political Science from the University of Guelph.

JOSEPH LAVOIE, PANEL MANAGER (FRANCOPHONE)

Prior to joining Navigator, Joseph Lavoie worked at Citigroup Global Transaction Services where he improved communications within the Transfer Agency Systems department. Joseph achieved this objective via Web 2.0 technologies, which he previously leveraged in developing Santa's Journal, a successful viral marketing campaign that introduced Santa Claus to the world of blogging and podcasting.

Joseph has been active in numerous provincial and federal election campaigns; has provided political commentary for various websites and television/radio programs; and has served as the recruitment director for the Ontario Progressive Conservative Youth Association. In March 2007, Joseph was selected *Canada's Next Great Prime Minister* by Canadians as part of a scholarship program sponsored by Magna International, the Dominion Institute, and the Canada-US Fulbright Program. He currently serves on the Public Affairs/Marketing Team for the Toronto Symphony Volunteer Committee.

STEPHEN LEONARD, PANEL MANAGER (ANGLOPHONE)

Prior to joining Navigator, Stephen attended the University of Guelph where he graduated with a Bachelor of Arts Honours degree in History. Throughout his undergraduate career, Stephen was an active member of the Canadian Forces Army Reserve in Toronto, which he left in June due to medical reasons as a Corporal.

Stephen is head Panel Manager and plays a vital role in the management and organization of the Citizen Panel project.

II. DISCUSSION LEADERS GUIDE

PHASE THREE CITIZEN PANELS

DISCUSSION LEADER'S GUIDE

ADVANCE OF DISCUSSION

1. LOBBY EXERCISE

- **Review of Draft Implementation Plan**
 - Panelists are provided with the NWMO's Draft Implementation Plan to review in advance of the Panel discussion.
 - Panelists will be asked to “scan” or read the document quickly, indicating they are not expected to have digested it in detail for the discussion

PANEL DISCUSSION

1. OPENING OF PANEL SESSION (0:00 – 0:05)

- Welcome back
- Reminder: Confidentiality of session
- Explanation of NWMO disclosure of proceedings
- Re-introduction of Transcriber
- Re-introduction of Parking lot
- Re-introduction of Panel Managers

2. OVERVIEW OF AGENDA FOR SESSION (0:05 – 0:10)

- Document Review
 - Tonight we will review the Draft Implementation Plan
- Representative from NWMO
 - Guidance for questions

- Speakers list, allowed a limited number of questions, time permitting.
- Briefing details
 - Has read your Parking Lot questions and a summary of your discussions to date
 - Has not viewed a complete session

3. RE-INTRODUCTIONS (0:10 – 0:15)

4. GENERAL DISCUSSION (0:15 – 0:20)

- I am wondering if you thought more about the NWMO after our last session
- Has anyone read, seen or heard anything about NWMO in the media since our last discussion?

5. DRAFT IMPLEMENTATION PLAN (0:20 – 1:35)

- When you arrived, you were given a copy of the NWMO's Draft Implementation Plan to review.
- This Implementation Plan lays out NWMO's thinking about how it will move ahead with its work. In your opinion, overall, do you think NWMO is moving in the right direction?
- In the Draft Implementation Plan, the NWMO provides a detailed overview of all 7 of their strategic objectives. I would like to concentrate on 4 objectives that Panels have previously rated as important and appropriate for the NWMO:
 - Building Relationships
 - Building Knowledge
 - Review, Adjust and Validate Plans
 - Collaborative Design and Initiation of a Siting Process

[For each of the above 4 Strategic Objectives]

[Give Panelists a few minutes to review each objective]

- Discuss the objective after review.
 - Do you think that plans are moving in the right direction?

- When you reviewed the Draft Implementation Plan earlier, you will have seen that there were 7 strategic objectives in total. I'd like you to refer to the remaining 3 objectives in the Draft Implementation Plan:
 - Financial Surety
 - Governance Structure
 - Building an Implementing Organization

[Give Panelists a few minutes to review the remaining 3 objectives in the Plan – all marked with same pink colour tags]

- Do any of the other strategic objectives now strike you as more important?
- Do you have any other comments about the Draft Implementation Plan?
- You are free to take the Draft Implementation Plan with you after this evening's session.

6. NWMO REPRESENTATIVE Q & A (1:35 – 2:50)

- We have a lot of work to do here this evening, and have allocated just over an hour for these questions. If we do not finish in that time we will defer to our parking lot or we will look at bringing the NWMO representative back either in person or by teleconference.

[SHORT BIO INTRODUCTION OF PERSONNEL]

- The individual will not be watching you before or after this session, and they will not see a tape.
- Do you have any questions?
- Guidelines for questions

7. WRAP-UP (2:55 – 3:00)

III. EXCERPTS FROM THE DRAFT IMPLEMENTATION PLAN USED AS INDIVIDUAL WORK SHEETS

BUILDING RELATIONSHIPS

The NWMO will continue to build long-term relationships with interested Canadians and Aboriginal people and involve them in setting future direction.

In 2008 we will:

- Undertake a communication audit to support the design of our communication strategy;
- Rebuild the NWMO web site to enhance accessibility;
- Develop and implement a strategy to more effectively engage youth in the implementation of APM;
- Work with national, provincial and regional Aboriginal organizations to establish protocols to support Aboriginal involvement in engagement; and
- Establish a corporate citizenship program.

In the period 2008-2012 we will:

- Continue to identify speaking engagements, community-based presentations and media opportunities to develop awareness about NWMO activities;
- Develop communications materials about NWMO, APM, the project and other issues as required;
- Use many tools, including multi-party dialogues, citizen panels, topical workshops and web-based surveys, to invite input from Canadians and Aboriginal people in regional
- and community-based associations, interest groups, researchers, industry, governments and the general public;
- Broaden NWMO's relationships in the four nuclear provinces to include municipal, regional and provincial associations; Seek advice on engagement of Aboriginal people from the Elders' Forum and Niigani, the working group established by the NWMO Elders' Forum;
- Seek meetings with editorial boards and other media;
- Continue to provide regular updates to provincial and federal government ministers, departments and agencies;
- Maintain protocols with interested organizations, including Aboriginal Peoples; and
- Develop strategies to address knowledge-building as the needs are identified.

Building Knowledge - Technical and Social Research

The NWMO will advance research to broaden its foundation of technical and social knowledge, bringing to bear the most advanced Canadian and international expertise to support implementation of Adaptive Phased Management.

Technical Research

During 2008-2012 we will:

- For the purpose of assessing potential candidate sites, develop the capability to conduct geoscientific aspects of site feasibility assessments, including sub-surface investigations and evaluations, in both crystalline and sedimentary settings;
- Maintain safety assessment system models and data suitable for supporting site feasibility studies;
- Continue to monitor developments in Canada and internationally related to regulatory aspects of used fuel management facilities;
- Prepare an annual report documenting alternative technologies for long-term management of used fuel including reprocessing, partitioning and transmutation; and
- Continue to participate in cooperation agreements with national radioactive waste management organizations around the world, specifically, SKB (Sweden), Posiva (Finland), Nagra (Switzerland) and ANDRA (France). These agreements provide the framework for sharing research information and participating in joint research and development programs in underground facilities such as the Äspö Hard Rock Laboratory in Sweden.

By the end of 2008 we will:

- In the area of geosciences, develop generic geo-scientific siting criteria; and
- In engineering, complete evaluation of container placement methods for the conceptual design of a deep geological repository in crystalline or sedimentary rock; and
- Appoint members to an Independent Technical Review Group and convene the inaugural meeting.
- By June 2009 we will develop the capability to review transportation options to a used fuel long-term management facility for various locations in the four nuclear provinces.

By the end of 2010 we will:

- Develop an improved model for uranium dioxide (UO₂) dissolution rates under deep geological repository conditions;
- Evaluate conceptual designs for optional centralized underground storage of used fuel; and

By 2011 we will support safety assessment and licensing, through completion of two illustrative safety cases, one for a deep geological repository in crystalline rock and one in sedimentary rock.

By December 2011 we will maintain a program to provide assurance of integrity of used fuel while in storage, including completing evaluation of delayed hydride cracking of used CANDU fuel bundles under dry storage conditions.

Social Research

In the period 2008-2012 we will:

- Commission background papers to support the collaborative design of the siting process, drawing on experiences in Canada and abroad;
- Convene capacity-building workshops on selected implementation issues;
- Convene Citizen Panels in each of the four nuclear provinces;
- Convene workshops on Aboriginal Traditional Knowledge;
- Complete telephone surveys for input on siting design and other implementation issues;
- Conduct deliberative surveys on the web site;
- Collaborate with interested academics in Canada and internationally to bring the best knowledge and practices of social and community-based process to NWMO's work; and
- Apply the ethical and social framework developed for the study phase to guide Implementation and report regularly on activities against this framework.

Review, Adjust and Validate Plans

The NWMO will continually review, adjust and validate plans against factors such as advances in technical learning, evolving societal expectations and values, and changes in energy and environmental policies.

In order to facilitate the process of dialogue and adaptation in response to the changes in projected fuel quantities and types, we will:

- Publish on an annual basis information on current and future potential inventories of used fuel volumes and types;
- Seek input from Canadians on how NWMO's plans should be amended to accommodate current and projected inventories; and
- Adapt and develop plans on how to go forward against the framework of the Strategic Objectives and with the guidance of our many advisors including ethicists. Specifically, we will consider the implications of used fuel from nuclear new build in our engagement program, in our technical and social research programs, in our financing formula, on the size and structure of the organization and governance, and on the design of a process for site selection.

We are committed to reporting on developments in technology, societal expectations and energy and environmental policy on an ongoing basis through many communication routes, including:

- Posting research papers and the results of engagement activities on the NWMO web site;
- NWMO Triennial Report to Minister of Natural Resources and public;
- NWMO Annual Report to Minister of Natural Resources and the public; and
- Annual update to the NWMO five-year implementation plan.

Collaborative Design and Initiation of a Siting Process

The NWMO will proceed with the collaborative design of a siting process, supported by a public engagement program, and subsequent initiation of a siting process.

In 2008 we will:

- Prepare a discussion document to initiate and facilitate conversations with Canadians on the design of the process for selecting a site. The document will, among other things, present an initial framework of objectives and principles and key issues that people will likely wish to consider; and
- Prepare information materials, such as fact sheets, to support a public dialogue on the design of a process for site selection.

In 2008-2012, subject to confirmation of readiness to proceed with each step, we will:

- Engage interested individuals and organizations in a dialogue on the design of a process for selecting a site to invite diverse perspectives;
- Draft a siting process proposal, including preliminary criteria, based on input from the previous round of dialogue;
- Test and validate the draft siting process proposal using a public engagement process;
- Develop supporting information and an education and awareness program; and
- Initiate the process for selecting a site subject to validation of the siting process proposal and readiness of the supporting engagement and information program.

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