What We Heard: Collaborative Development of the Siting Process (2009)

I. Overview

Dialogue activities were conducted throughout 2009 to help design the process to identify a location in an informed, willing community for a repository for the long-term management of used nuclear fuel in Canada. The purpose of this document is to outline, at a high level, the nature of the comments that were received and the NWMO's efforts to date to address these comments in the refinement of the siting process and related activities.

Comments and suggestions received were broad ranging. These included a focus among some to learn about the background of the project. Basic background questions included How did we get to this point in the process; What is nuclear waste, and what is the nature of the hazard; What is Adaptive Phased Management, and why was it selected as Canada's plan; Is used nuclear fuel truly a waste, or is there a potential to reuse it; Should we continue with nuclear energy and produce more waste; Can waste be safely transported; Who oversees the work of the NWMO, and what are the regulatory requirements that need to be met.

Overall, the proposed guiding principles were seen to be on track and cover, generally, what is essential and most important. Similarly, the site selection process steps were generally seen to meet the test of fairness and safety. Over the course of the dialogue, we received suggestions designed to improve each of these components of the siting process.

Specific suggestions about the siting process focused on ensuring that the siting process:

- First and foremost focuses on safety of people and the environment;
- Will ensure best knowledge informs the process;
- Includes Traditional Knowledge throughout;
- Screens out unsuitable sites early;
- Is guided by principles that reflect the values and concerns of Canadians;
- Involves citizens throughout the process;
- Provides opportunity for the building of trust and confidence with the community concerning the project, the NWMO, regulatory authorities and governments;
- Builds awareness and understanding of key aspects of the work more broadly;
- Provides appropriate resources to build capacity of communities to know their own interest and act upon it;
- Ensures host community is informed and willing;
- Assesses the project at a regional level, beyond the local community;
- Involves all those potentially affected early in decision-making;
- Identifies the foundation for fostering the long-term well-being of the host community through the implementation of the project;
- Respects Aboriginal and Treaty Rights;
- Reflects regulatory expectations and requirements, and ensures they are addressed in decision-making throughout;
- Involves provincial governments and regulatory authorities early in the process and throughout;
- Is adaptive to new learning and sustainable over the 10 or more years that will be required for its implementation.

We note that some dialogue participants wanted the discussion about the design of an appropriate siting process to include discussion of the larger question of the future of nuclear energy in Canada, a question that is beyond the mandate of the NWMO to address. Some people expressed reluctance to contribute to the design of the siting process absent of this broader discussion.

In response to the questions, comments and suggestions received, the NWMO made refinements to the siting document in a number of key areas. These areas include:

- Earlier and more prominent role for regulator and provincial governments;
- Advancing availability of resources for the involvement of surrounding areas and region;
- Ensuring a more regional focus in both assessment of the project and distribution of benefits;
- More prominent role assigned to transportation considerations throughout the process;
- More streamlined process for initial screening in order to give communities early insight on their suitability.

Also in response to what we heard, the NWMO initiated the development of:

- Several new backgrounders, or short information documents, each designed to focus on specific topics of interest. Some existing backgrounders are also being revised to better address the questions and concerns raised. These backgrounders will be published on the NWMO website as they are developed.
- Video presentations for the website on key topics of concern, such as a description of the project and transportation requirements.
- An interactive, travelling exhibit designed to, for instance, facilitate exploration of these issues by encouraging the visitor to manipulate models and experience a virtual deep geological repository.

The NWMO encourages readers to visit its website to review the independent consultant reports that summarize the comments raised in individual engagement initiatives, as well as the individual submissions received, to learn more about the broad range of themes and detailed comments that were raised. The NWMO will continue to refer to this large body of comments for guidance as it develops communications materials to support the implementation of the siting process, and detailed programs and plans to support the unfolding of individual steps in the siting process.

II. Collaboratively Designing a Siting Process: Engagement Activities

The NWMO committed to developing the process for selecting a site for a deep geological repository collaboratively with interested Canadians. The organization published a proposal for a siting process in May 2009 based on dialogue the previous year about important principles and elements for a fair process that would help ensure the selection of a safe, secure site in an informed and willing host community.

Canadians were invited to consider the proposed process and share their thoughts on whether it is appropriate and what changes, if any, need to be made. A discussion document to initiate and facilitate conversations, *Moving Forward Together: Designing the Process for Selecting a Site*, was widely distributed and was the basis for our engagement throughout the year.

In addition to the discussion document, a broad range of information materials was prepared to support dialogue. These included a brochure on the proposed process, a video providing background to the discussion and highlighting some key issues to be addressed, a travelling poster display, a workbook outlining key components of the proposed process and inviting comment, a series of backgrounders and fact sheets on commonly asked questions and topics, and a set of NWMO presentations designed to invite input on the process. An information video in eight Aboriginal languages was also produced. All this material is posted on the NWMO website.

In addition to a general invitation to participate through web-based opportunities or to make a submission, several specific engagement initiatives, focused in the four nuclear provinces, were conducted as part of the collaborative design process. Many of the activities were planned and conducted by independent contractors and summarized in reports prepared by these individuals and firms.

The engagement program was designed to actively seek the contributions of a diverse range of perspectives and provide an opportunity for all those who wished to participate.

- The dialogue began with the publication of a proposed process in May and an invitation for all interested individuals and organizations to share their thoughts on whether the proposal is appropriate and what changes, if any, need to be made.

- A series of well-advertised Public Information Sessions were held in 17 regional centres in the four provinces involved in the nuclear fuel cycle. All interested Canadians were invited to learn more about the NWMO, the Adaptive Phased Management approach and the proposed siting process. NWMO staff members were present to answer questions, and hear concerns and comments from more than 700 visitors who attended the sessions. Participants represented many interests, including government at all levels, First Nations and Métis, environmental and conservation groups, educational organizations, business and industry, unions, social organizations, media and members of the public. The range of views was broad. Many attendees expressed views on energy policy, while others offered specific recommendations on how the draft siting document could be enhanced.

- Approximately 100 people representing business associations, municipal groups, non-governmental organizations, Aboriginal organizations, academia, the nuclear industry and professional associations participated in Multi-Party Dialogues convened in Saskatoon, Ottawa, Toronto and Saint John. Many who attended the day and a half long sessions had offered advice in 2008 on important principles and elements to be considered in drafting the proposed siting process. For the most part, they saw their guidance reflected in the draft document. While there was not always consensus, each of the dialogues yielded a number of suggestions for strengthening the process.

- Citizen Panels, established in 2008 to review various aspects of the NWMO's work, were reconvened and brought together in Toronto and Ottawa for day-long, deliberative dialogues to

consider the siting proposal and comment on it. Participants expressed general support for the principles and steps in the proposed process and provided comments on possible areas for improvement. These facilitated, full-day sessions included presentations by the Canadian Nuclear Safety Commission on Canada's nuclear regulatory framework. Similar half-day sessions with randomly recruited citizens active in their communities were held during October in five cities.

- The NWMO invited Aboriginal organizations in Saskatchewan, Ontario, Quebec and New Brunswick to collaboratively design, develop and coordinate a series of regional information and dialogue sessions on the proposed siting process. The sessions, which brought together First Nations and Métis peoples in regional areas identified by Aboriginal organizations, reflected a broad range of perspectives including leadership, Elders, women, youth and community members. The NWMO provided financial resources and communications materials about Adaptive Phased Management and the proposed siting process to support the dialogues, and the Assembly of First Nations provided additional information materials developed with the interests of First Nations people in mind. The dialogue format varied in each province. NWMO technical and engagement specialists participated in the sessions along with one or more members of Niigani and the Elders Forum. In addition, a number of Aboriginal groups conducted meetings and information sessions directly with Aboriginal communities in order to provide as wide a range of opportunities for participation and learning as possible. In total, more than 800 people participated.

- Other activities in support of the process to select a site included an e-dialogue moderated by Dr. Ann Dale of Royal Roads University in October, a national telephone survey of 2,600 Canadians, a web survey and submissions received through the NWMO website.

Suggestions were also received from the NWMO's Elders Forum, Municipal Forum, Youth Roundtable and Advisory Council.

The independent reports, and other comments and suggestions submitted directly to the NWMO, can be reviewed on the NWMO website. We encourage readers to review this material, and the broad diversity of comments contained, that cannot all be summarized in this brief overview report. These reports, and detailed comments, suggestions and concerns outlined in them, will be a key reference point for implementation of the siting process. Based on this detailed input, detailed plans will be developed to implement the framework laid out in the siting document and will be published on the NWMO website as they are developed. Complementary information material, exhibits and displays will also be developed to address the comments and suggestions made.

III. What We Heard

Over the course of the dialogues, we heard a broad range of comments.

a) Necessary Background

Many people who participated in the dialogue were new to the topic of the long-term management of used nuclear fuel, and as a result, they had a number of more general questions before they could begin to consider the siting process. Although these are not specific to the siting process, it is clear that answers to these questions are necessary background information for it. Participants in the dialogues noted that in-depth information and a better understanding of the nuclear fuel cycle, nuclear energy production, and the safety, security and impacts of a deep geological repository on future generations and the environment are needed for full participation in the site selection process.

- ***What is the nature of the hazard associated with used nuclear fuel, and can it be safely and securely managed over the long term?*** Many of the people who came to the NWMO regional information sessions had little knowledge about used nuclear fuel. Much of their fear and concern was reduced through learning more about what used nuclear fuel is, how it is currently being managed in federally licensed facilities, the open and inclusive approach of the NWMO to its work, and the robust regulatory framework that Canada has in place to oversee the long-term management of used nuclear fuel. We know from public attitude research conducted across Canada that awareness and understanding in these areas is low, and for this reason, fear and concern may be the initial reaction of many citizens to this project, which will require information and time to address.

Response:

- ***The NWMO recognizes the need to continue its efforts to build broad awareness and understanding of the project and has identified this as a focus for Step 1 of the process.***
- ***Step 1 is designed to provide information, answer questions and build awareness among Canadians about the project and the siting process. Activities will be designed to ensure opportunities to learn more and will both seek opportunities to provide information and respond to information requests. The information shared in the outreach program will be posted on the NWMO website for broad public access and review.***
- ***Increasing awareness and understanding is expected to take a sustained effort throughout the entire site selection process, that is expected to extend over more than 10 years. As the siting process proceeds, and potential willing host communities and regions come forward, awareness-building activities will both intensify and become more focused on those who are most likely to be affected by the implementation of the project.***
- ***Steps 2, 3 and 4 in the process are designed in part to facilitate the exploration of the safety of the site, and through working collaboratively with the NWMO in this work, they provide an extended period of learning for the community before deciding whether they are willing to host the project. The community will be supported in this learning process through provision of resources designed to help build the capacity of the community to identify and act upon their own interest.***

- ***Why Adaptive Phased Management?*** Some of those who were new to the issue asked why Adaptive Phased Management, rather than another approach, was selected as Canada's plan. Questions raised about Adaptive Phased Management included What is it; How was it developed; What were the options that were considered; Why was it selected by the Government of Canada as Canada's plan; On what basis do we have confidence that it will contain and isolate used nuclear fuel over the long period required; How does it compare with the long-term management plans of other countries; What is the management plan for other radioactive waste.

Response:

- ***The NWMO recognizes that among the important topics to be addressed in activities to build awareness and understanding among citizens is Adaptive Phased Management, the basis for its selection and comparison with the plans of other countries. The brief description provided on pages 5 and 6 of the siting document is designed to be supplemented by more detailed information in the form of several backgrounders to be published on the NWMO website.***

- ***Can used nuclear fuel be reused?*** Some wanted to know if used nuclear fuel can be recycled or reprocessed before it is sealed underground in the deep geological repository.

Response:

- ***The NWMO recognizes the continuing interest by some in the potential for reuse. In response to this continuing interest, a brief discussion has been added to page 6 of the siting document.***
- ***The NWMO will continue to keep a watching brief on the development of these and other technologies as part of its ongoing effort to incorporate new learning and knowledge, and it will continue to review and adjust the way in which Canada's plan is implemented as needed.***

- ***Can the institutions involved be trusted?*** Consistent with the "producer pays" principle, the *Nuclear Fuel Waste Act* tasked the companies that produce nuclear waste to create an organization to implement a plan for the long-term management of this fuel, and they formed the Nuclear Waste Management Organization (NWMO). Some told us they would have preferred that an organization that is independent from the waste producers be set up for this role and are concerned that the plan will not be implemented appropriately because of this governance structure. Some mentioned examples of cost overruns and other problems with existing nuclear facilities to illustrate their lack of trust in the nuclear industry. Concerns were also expressed by some that regulatory standards are not sufficiently rigorous.

Response:

- ***The NWMO will seek to build trust and confidence in its ability to implement the project in a way that is responsive to the values and concerns of Canadians through implementing Adaptive Phased Management. Through these efforts, the NWMO will work to establish a track record that earns and builds confidence in the organization.***
- ***The NWMO will also seek to build trust and confidence in the siting decision-making process. The NWMO will seek to do this by ensuring adherence to the guiding principles and steps, including transparency, inclusiveness, multiple forms of oversight and review, and capacity building for those potentially affected to ensure they are in a position to think through their***

own interest and act upon it. Substantial effort over an extended period is expected to be required from the NWMO to earn the trust and confidence of Canadians.

- ***Should we continue with nuclear power and produce additional used nuclear fuel?*** The NWMO continues to hear ongoing debate among citizens on the question of what ought to be the future of nuclear power. Many of those who oppose the use of nuclear power would prefer that a long-term management plan for used nuclear fuel not be put in place, as they see the implementation of such a plan as a necessary condition for the expansion of nuclear power. In contrast, those who see the need for nuclear power to meet the energy needs of Canadians, or who prefer nuclear power over other energy sources, are more likely to feel it is important to move forward with the long-term management plan. The question of whether a waste reduction strategy ought to be part of Canada's plan was also raised by some in the dialogue.

Response:

- ***The NWMO has not examined nor is it making a judgment about the appropriate role of nuclear power generation in Canada. We suggest that those future decisions should be the subject of their own assessment and public process. Used nuclear fuel exists today and will continue to be produced to the end of the lives of Canada's existing nuclear facilities. The focus of our work is to implement a responsible path forward for addressing the used fuel that requires management for the long term. Our work is intended neither to promote nor penalize Canada's decisions regarding the future of nuclear power.***

- ***Questions about Adaptive Phased Management components.*** Some wanted to know more about aspects of Adaptive Phased Management. Monitoring is an example: How will monitoring be conducted to ensure safety; How long will this monitoring extend; and How will the community be involved. Retrievability is a second example: Under what conditions might waste be retrieved; Who would be involved in decision-making.

Response:

- ***Adaptive Phased Management includes a commitment to continuous monitoring of the used fuel to support data collection and confirmation of the safety and performance of the repository. This will be described in more details in a topic-specific backgrounder to help build understanding of this commitment. It is also expected that detailed plans for monitoring will be developed over time through the implementation of Adaptive Phased Management. Processes and plans to implement monitoring are expected to evolve over time as research and development continues regarding remote monitoring techniques and equipment. Decisions about detailed plans for how monitoring is to be implemented at the site will ultimately involve the host community, in order to address their concerns and preferences, as well as others including regulatory authorities.***
- ***Adaptive Phased Management includes a commitment to potential for retrievability of the used fuel for an extended period, until such time as a future society makes a determination on the final closure, and the appropriate form and duration of post-closure monitoring. This will be described in more details in a topic-specific backgrounder to help build understanding of this commitment. It is also expected that detailed plans for retrievability scenarios and options will be developed over time through the implementation of Adaptive Phased Management,***

reflecting both the evolving state of technology and discussions with the host community and others including regulatory authorities.

- ***Can used fuel be transported safely?*** Many people had questions and concerns about the safety of transportation and expressed a desire for transportation distances to be limited. Many expressed interest in how the NWMO planned to deal with transportation safety issues regarding potential impacts on communities and the environment.

Response:

- ***To address questions about the transportation of used nuclear fuel, the NWMO has developed a video that outlines the safe track record associated with transportation of used nuclear fuel internationally, the design of robust transportation containers and their ability to safely and securely contain used nuclear fuel under a broad range of what-if scenarios, and the robust regulatory framework that will oversee transportation and ensure that strict safety criteria are met.***
- ***The NWMO will need to demonstrate the safety and security of any transportation system to the satisfaction of regulatory authorities, and citizens, before transportation of used nuclear fuel to the repository can begin.***

- ***Will this facility manage foreign waste?*** Many described their strong sense of responsibility to put in place a plan to manage the waste we have created in Canada. However, for many this sense of responsibility does not extend to the management of foreign waste. Many wanted assurance that foreign waste will not be placed in the deep geological repository.

Response:

- ***An explicit commitment to excluding foreign waste (used fuel from outside of Canada) from the repository has been added to the siting process document on page 13.***

- ***What will be the effects of the project on people and the environment?*** During the dialogues we heard concerns about whether used nuclear fuel can be safely managed for the long period of time required, and questions about how we can be sure that Adaptive Phased Management will safely and securely contain and isolate the used fuel for hundreds of thousands of years. There is anxiety about the possible effects of the nuclear waste on the environment, the efficacy of geological barriers, disruption of groundwater flow and the potential for seismic activity. Questions included What are the health effects and worst-case scenarios for the host community and transportation communities, and how will they be managed – roles, responsibilities, liability; What are the effects on the environment, people, plants and medicines, and how will they be managed; What are the health effects and effects on the environment in the future; What will be the disruption of livelihoods.

Response:

- ***The project will need to be demonstrated to be safe to the satisfaction of regulatory authorities, as well as citizens, before it will proceed. In order to demonstrate the safety of the project, a robust safety case must be developed involving detailed surface and subsurface investigations at the potential site. Such detailed study and testing has been designed into***

the siting process through a stepwise and ultimately very detailed assessment conducted over Steps 2, 3 and 4 of the process in a period of 5 to 8 years. The results of this study will then be assessed through the independent regulatory review process, involving an environmental assessment and licensing process, each of which will require public hearings.

- ***How will the host community and region benefit from the implementation of the project?*** Over the course of the dialogue, questions arose concerning the nature and magnitude of the benefits that would be enjoyed by the community in hosting the project. There was strong agreement that the host community should benefit from the project and that the benefits need to be substantial enough to attract the interest of communities. We heard that care must also be taken to avoid taking advantage of a vulnerable community and that quality of life must not be compromised for economic gain.

Response:

- ***The NWMO has committed to implementing the project in a way that contributes to the well-being of the community. The project will be an impetus for economic development in the community, region and province in which it is located, and efforts will be made to harness this to contribute to the long-term vision the community has for itself. The NWMO is working with the consulting firm AECOM to refine estimates of economic benefits for various types of communities.***
- ***Importantly, there are also expected to be social, economic and cultural effects that will need to be managed throughout the project. These need to be identified, and a plan for their management needs to be put in place in partnership with the NWMO.***
- ***The level and nature of benefits that any community might realize, and potential effects likely to be experienced, will be influenced by a number of factors such as: geographic location; population size, characteristics and dynamics; availability and composition of labour, supporting businesses and industry; state of supporting infrastructure and services; vision, goals and objectives of the host community. Initial investigation suggests that irrespective of where this project is located, it will deliver benefits to the community: project size and scale bring potential to significantly affect economic opportunity and diversity; there is potential for a high capture of skilled job creation in the host community and region; significant employment opportunities extend across the province; and, it will be the source of significant wealth creation in the host community, region and province. More detailed estimates will be made once potential host communities and regions are identified.***
- ***In order to reduce the potential for exploitation of a disadvantaged community, the siting process encourages a community to begin its involvement by first thinking about the long-term vision it has for its community as a basis for assessing interest in the project in the early stages. The community will be required to embark on a long process of learning during Steps 2, 3 and 4 of the siting process to ensure it develops an understanding of the project and potential effect of its implementation on its community. Resources will be provided to the community to support its learning at each step, including resources to hire third-party expert support.***

b) Focus on the Siting Process

Throughout our discussions, participants underlined and confirmed important principles. These principles form part of the common ground on which the process for selecting a site is based:

- The current generation must put a plan in place for the waste we have created. This is the foundation for proceeding with the siting process. The current generation must demonstrate social and ethical responsibility for taking proper care of the nuclear waste that has been created.

- Ongoing effort must be made to build awareness, understanding and confidence in Adaptive Phased Management, including how used nuclear fuel will be safely transported from reactor sites to the central facility.

- We must continue to build understanding and maintain flexibility to take advantage of new knowledge and expertise from around the world throughout the process. The process must be adaptive.

- Safety, security and protection of people and the environment in the siting decision are preeminent considerations.

- Our "social contract" with future generations means we must ensure the protection of present and future generations.

- The process must be grounded in a strong set of principles that will guide the siting process. These principles must reflect the values and priorities of citizens. Shared decision-making, inclusiveness, transparency and independent review must drive the process.

- Robust public participation is essential. It is the heart and soul of a successful site selection process.

- Those who are potentially affected must be involved in decision-making, and they must have the resources they need to support their participation. This is crucial to a fair process.

- Seeking an informed and willing community to host the project is a key requirement.

- The long-term well-being, or quality of life, of the host community must be fostered through the project. The community must benefit from hosting the site, and risks must be mitigated. A broad range of aspects of the well-being of a community must be considered.

- The rights of Aboriginal peoples, traditional practices and Traditional Knowledge must be respected in decision-making.

- Transparency in the process and third-party review are important components of the process to ensure fairness. Communities must have access to their own sources of information and expertise to assess the project.

Overall, the guiding principles outlined in the draft document were judged to be on track and cover, generally, what is essential and most important. Some additions and refinements were also suggested. Based on the comments received, it is evident that it will be important for the NWMO to find ways to clearly demonstrate that it is implementing the principles appropriately in the early steps of the process in order to reduce skepticism among some that the principles will in fact be followed.

Similarly, the site selection process steps were generally seen to meet the test of fairness and safety, although some important refinements were suggested. The community-driven approach and inclusion of public participation throughout the process were identified as particularly important. This entails the involvement of citizens of the possible host community and surrounding areas, and others potentially affected, not just political representatives, in determining whether a community is informed and willing to host the site. This public participation role needs to extend through all stages of the site selection process as well as construction and operation of the facility, and include all points of view. Many of the suggestions for improvement in this area focused on ensuring that those potentially affected by the siting decision are brought in to decision-making as early in the process as possible.

In discussing what an appropriate siting process for Canada must include, the conversations of participants centred on some key questions and issues.

- ***Earlier involvement of provincial governments and regulatory authorities***: A number of comments were made.
    - Provinces and regulators need to play a larger role earlier in the process. The draft siting process was felt by some to downplay the involvement of provincial governments and regulators. Explicit and clear involvement of provinces was identified as important because of their specific regulatory powers, and responsibility for regional development, municipal governments, the provision of some infrastructure and Crown lands.
    - Some were of the opinion that since municipalities exist through provincial laws, there should not be direct contact between the NWMO and municipalities without going through the provinces. Others stated that permission of the province should be obtained before a site is selected in that province.
    - Some participants were looking for assurance that provincial and federal governments have started thinking about the design of the environmental assessment and regulatory frameworks for the repository. They explained that since these frameworks will govern the safety, environmental and other criteria that the NWMO will be required to apply to the project, it is essential that these processes and requirements be agreed to early in the process by the Canadian Nuclear Safety Commission (CNSC) and other federal and provincial authorities. Participants were clear that the regulatory framework cannot be an afterthought; it needs to be developed in advance.
    - A number of participants recommended that the formal environmental assessment (EA) start earlier in the process, possibly at Step 4. This is because the EA process may reveal information that is important for communities in their decision-making. Some argued there should be stronger integration of the steps in the siting process (site assessment criteria and public engagement processes) with the environmental assessment process. A few participants recommended that the environmental assessment process occur after a community has expressed substantial support for the repository, but before it has reached a final agreement with the NWMO, and that the assessment be used as a planning tool to help design the project, not just as a means of assessing its impacts.

Response:

- ***The siting process has been revised to include early and ongoing involvement of provincial governments and regulatory authorities throughout the process. This revision reflects the NWMO's actual practice to date and approach to going forward, incorporated now as an element of the siting process.***

- ***The NWMO briefs governments on a regular basis at the highest political levels, at the senior departmental or ministry level, party caucuses and members to foster awareness of the NWMO's activities. Such briefings take place with governments at the federal level and provincial level for the provinces involved in the nuclear fuel cycle.***
- ***The NWMO also provides briefings to regulatory authorities. Over the eight-year period (or more) of site assessments, learning may increase, and expectations and best practices may evolve. For this reason, the NWMO will seek regulatory guidance throughout the siting process to ensure that its work remains consistent with regulatory expectations.***
- ***The siting process has been revised to clarify that the regulatory requirements for this project will inform the site assessment activities and approach to engagement of citizens from the inception of the siting process.***

- ***Greater geographical focus***: A number of comments and suggestions were made in this area.
    - Some participants argued that geophysical and logistical constraints ought to preclude certain areas of the four nuclear provinces from being suitable sites. In these participants' view, the NWMO should be more directing and develop additional criteria to focus the site selection process at the inception of the process. The early identification of excluded areas was suggested as both a cost-saving measure for the NWMO and a way to reduce potential burden and stress for communities.
    - Some also suggested that other types of criteria might also be used to preclude certain areas, such as population density or transportation distance.

Response:

- ***The NWMO has attempted to address comments, although in a somewhat different manner than suggested. As explained in the siting document, based on information available today, it is expected that large areas within Canada have the potential to safely and securely contain and isolate used nuclear fuel over the long term. However, detailed surface and subsurface investigations are needed to confirm whether a site is in fact suitable. The site evaluation process focuses this detailed assessment on sites in communities that are interested in hosting the project.***
- ***The suitability of any site to host this project will be a function of a number of factors considered in combination as they affect the safety case for the site. A large variety of factors are important in assessing this safety case, as illustrated in the list of 'factors affecting safety' outlined in the siting document; however, taken in isolation, few of them are exclusionary. Some participants in the dialogue suggested that transportation distance might be used to exclude some land areas. However, even concerning this factor, best practice suggests that a number of related factors need to be considered, including amenability of the route for the implementation of security and emergency response measures during transportation, the availability and adequacy of infrastructure, the availability of suitable safe connections and intermodal transfer points, the NWMO resources (fuel, people) and associated carbon footprint required to transport used fuel to the site, and the potential for effects on communities along the transportation routes and at intermodal transfer points.***
- ***The process is designed to ensure the community has early feedback on its potential suitability (Step 2 of the process) before beginning to assess its interest in earnest. Step 2 has been streamlined by making third-party review an optional step at this point in the process to enable the community to understand its potential suitability before engaging further in the***

process. Note that third-party review would still be available upon request by the community in Step 2 and would continue to be a requirement in Steps 3 and 4.

- ***A greater role for other affected communities beyond the willing host community***: A number of comments and suggestions were made in this area.
    - Many participants recommended that the support of surrounding communities needs to factor more strongly into the site selection process.
    - Several participants argued that surrounding communities, including Aboriginal communities, should be involved earlier than Step 4 in the process as had been proposed in the Discussion Document.
    - Although participants agreed that the proposed regional study of social, economic and cultural effects is an appropriate step for involving surrounding communities, some felt that this study should be moved to Step 3 of the process to ensure earlier engagement of these communities.

Response:

- ***In response to this concern, refinement of the siting process has been made to add greater flexibility in the timing of involvement of surrounding communities, potentially affected Aboriginal peoples and regional study. Rather than being tied to a specific step in the siting process, a commitment is made to completing these activities as early as possible, as actual circumstances allow, within the block of steps which is Steps 2, 3 and 4. Capacity-building resources to support this earlier involvement by communities has similarly been advanced in the process.***

- ***Definition of community and focus on region***: Throughout the dialogues, many addressed the question of what constitutes a community and who should ultimately need to demonstrate willingness in order for the project to proceed. A number of comments and suggestions were made in this area.
    - Some participants believed that the formal agreement should include more parties than just the NWMO and the willing host community, using a regional approach that includes all communities incurring risk or receiving benefits from the project.
    - Several participants stated that a willing host community is not sufficient, and that this principle should be broadened to encompass a willing region and a willing province.
    - A number of participants stated that the evaluation of community well-being factors should be regional in scope, a scale which they believed would be more appropriate in terms of addressing ecological sensitivities and associated impacts on land use. This approach may also require a strategic environmental or sustainability study of the region – to understand the regional baseline and to identify where industrial development is possible without damaging the ecosystem.
    - Several participants stated that the project's benefits must be shared with the surrounding communities and that the equitable distribution of benefits is as important as their actual size.

Response:

- ***Refinement has been made to the siting process to recognize more clearly that the project will affect a broad region (p. 19). A commitment has been made to involving the broad region early in the process beginning in Step 3; those potentially affected will have the opportunity and resources to influence the decision, including through the regional study in Step 4.***

- ***Greater importance to transportation considerations***: We heard from many that transportation is likely to be one of the major challenges for the site selection process.
    - There is a risk that communities along a transportation corridor could frustrate the project.
    - The shortness of the section on transportation-route communities in the document does not do justice to their potentially pivotal role in the site selection process.
    - Many participants raised concerns about the ability of communities on transportation routes to put in place emergency response plans and have the capacity to react to an emergency situation.

Response:

- ***Refinement has been made to the siting process to underline that in order for a site to be considered technically safe, a transportation route must be identified, or be capable of development, by which used nuclear fuel can be safely and securely transported to the site from the locations at which it is currently stored (p. 32). Beyond safety, transportation is also an important consideration in identifying and assessing effects on community well-being.***
- ***Emergency Response Assistance Plans will need to be developed and approved by Transport Canada prior to transport.***

- ***Strengthening discussion of volume (and type) of waste to be managed***: Some asked how used nuclear fuel from nuclear power plants that may be built in the future would be managed. Specifically, would the deep geological repository need to manage all used nuclear fuel generated in the future?

Response:

- ***In response to this question, refinement has been made to the siting document to address this question. The revised text appears at the top of page 13 of the document.***

- ***Timing of construction of underground demonstration facility***: Some expressed concern that the NWMO will require a licence to construct the underground demonstration facility, and for this reason, the construction of the facility should be moved further back in the process.

Response:

- ***The NWMO expects that a construction licence would only be required for this facility if it were planned to be used as a component of the deep geological repository itself. In order to accommodate such a scenario and to reduce any concern that the NWMO might proceed with this facility without sufficient formal review, the timing of construction of this facility has been moved later in the process (Step 8), following the formal application for a construction licence.***

- ***Strengthening the discussion of willingness***: Some suggested that the criteria that will be used to assess willingness of the host community be identified in the siting document, and the processes to demonstrate this willingness be prescribed.

Response:

- ***In refinement of the siting document, the NWMO has attempted to describe a multi-phased process to help ensure this outcome without going so far as to prescribe the framework by which willingness will be assessed. This process is described on pages 19 and 20 in the siting document. The NWMO believes that societal expectations concerning willingness and how it needs to be demonstrated may well evolve over time. It will be important that willingness be demonstrated by the community in a way that meets the expectations of the time, recognizing that a community may not reach this point in the process until after eight or more years.***
- ***The NWMO also believes that decisions about the demonstration of willingness may be made more easily when faced with an actual host community that may have unique decision-making processes to leverage.***
- ***There will need to be sufficient basis for support for the project among specific surrounding communities, transportation communities and regions in order to proceed with the project. The process outlines a road map for involving these parties in consideration of the project and decisions on whether or not to proceed.***

- ***Reduce potential for conflict of interest in Steps 5 and 6***: Some told us that the NWMO was in a potential conflict of interest position in Steps 5 and 6 of the process in that the process suggested that the NWMO may work individually with multiple communities to assist in developing a draft hosting agreement in Step 5 and then select the preferred community and agreement in Step 6.

Response:

- ***Revision has been made to the siting process to remove the NWMO's involvement from the development of draft hosting agreements in Step 5, and instead provide resources to the community to contract expert support from a third party.***

- ***Traditional Knowledge***: We heard that all processes involving the environment, including the sting process, need to consider traditional knowledge.

Response:

- ***The siting process is designed to encourage and help facilitate early involvement and agreement with Aboriginal groups in the planning and design phases of the project.***
- ***Aboriginal Traditional Knowledge is understood to include important knowledge about developing and maintaining effective and meaningful relationships between generations and within and between communities. The NWMO will look to Aboriginal peoples to share that knowledge with the NWMO to the extent that they wish to.***

IV. Closing Thoughts

Dialogue activities were conducted throughout 2009 to help design the process to identify a location in an informed, willing community for a repository for the long-term management of used nuclear fuel in Canada. This document has briefly outlined comments that were received and the NWMO's efforts to date to address these comments in the refinement of the siting process and related activities.

Comments and suggestions received were broad ranging. These included a focus among some to learn about the background of the project and general questions to detailed suggestions on the design of individual components of the siting process. The NWMO encourages readers to visit the NWMO website to review the independent consultant reports that summarize the comments raised in individual engagement initiatives, as well as the individual submissions received to learn more about the broad range of themes and detailed comments that were raised. The NWMO will continue to refer to this large body of comments for guidance as it develops communications materials to support the implementation of the siting process, and detailed programs and plans to support the unfolding of individual steps in the siting process.