



NUCLEAR WASTE
MANAGEMENT
ORGANIZATION

SOCIÉTÉ DE GESTION
DES DÉCHETS
NUCLÉAIRES

Implementing Adaptive Phased Management 2015 to 2019

What We Heard – Comments
Received About *DRAFT PLAN*

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JUNE 2015

Introduction

Every year since 2007, when the Government of Canada selected Adaptive Phased Management (APM) as Canada's approach for the safe long-term management of Canada's used nuclear fuel, the Nuclear Waste Management Organization (NWMO) has published a five-year strategic plan. Titled *Implementing Adaptive Phased Management*, the Plan describes how the NWMO will implement APM in the planning period. The NWMO invites all interested individuals and organizations to get involved in reviewing and contributing to the rolling plan for the long-term management of used nuclear fuel. To encourage public review and comment, the Plan is distributed by mail to more than 2,500 individuals and organizations that had previously expressed interest, and posted on the NWMO's website with an invitation to comment by making a submission, sending a letter or filling out the comment form.

The purpose of this document is to report on the comments received from more than 35 individuals and organizations about the most recent Plan, *Implementing Adaptive Phased Management 2015 to 2019 – Draft for Public Review*, and how the NWMO has taken these comments into account in work going forward.

Note that the 2015–2019 Implementation Plan reflected two refinements in focus of work, and the NWMO was particularly interested in receiving reflection on these refinements. As described in the Plan, these refinements included objectives dedicated to:

» **Transportation:** The 2015–2019 Implementation Plan brought together in a single program stream the NWMO's ongoing work to establish safe, secure and socially acceptable plans for transporting used nuclear fuel. This reflects the importance of transportation as an element of the APM program. It also reflects feedback the NWMO has received urging it to communicate in an integrated way about its plans in the important area of transportation.

» **Continuously improving technical knowledge in collaboration with universities and international partners:** The 2015–2019 Implementation Plan brought together in a single program stream the NWMO's ongoing work to advance technical knowledge to support the implementation of Canada's plan. This change reflects the importance of the NWMO's collaboration with universities and international partnerships to stay abreast of and contribute to the advancement of developments in the field of used nuclear fuel management.

As in past years, five general questions were identified to help encourage discussion:

1. The draft Plan is built around seven strategic objectives. Are the objectives that we have identified appropriate? Have we missed key areas?
2. The draft Plan identifies work and activities we propose to undertake to accomplish these objectives. Have we set out appropriate activities?
3. The draft Plan is intended to anticipate the challenges ahead and plan for them. Over the next five years, what are the key challenges that will need to be addressed?
4. What will the NWMO need to put in place to respond to these challenges?
5. Other comments, questions or suggestions?

The NWMO greatly appreciates receiving comments and suggestions about its work programs and plans. It continues to welcome your thoughts as it moves forward together to implement Canada's plan for the long-term management of used nuclear fuel.

The NWMO's Strategic Objectives

The comments received related to the NWMO's strategic objectives were largely positive. Most people found the objectives and associated activities realistic and appropriate. Overall, many submissions suggested minor revisions, and most were accommodated in the final Plan, though a small number of editorial comments also highlighted broader issues for special attention. A number of submissions credited the NWMO's responsiveness to previous years' commentary, noting the improvements and additional information provided in the 2015–2019 Plan.

New to This Implementation Plan: Develop Transportation Plans

An ongoing theme for comments received by the NWMO related to its strategic objectives and Implementation Plan, and over the course of a wide variety of engagement activities, is the importance of transportation as an element of the Adaptive Phased Management program. The 2015–2019 Implementation Plan brought together in a single program stream the NWMO's ongoing work to establish safe, secure and socially acceptable plans for transporting used nuclear fuel.

As explained in the Plan, people have urged the NWMO to communicate in an integrated way about its plans in the important area of transportation. The NWMO has heard that there is societal interest in seeing explicit recognition of the range of technical aspects being considered, including safety of container designs, possible modes and infrastructure requirements, safety of health and workers, risk assessment, security, and emergency response planning. There is also interest in knowing more about the engagement activities planned by the NWMO. Governments, organizations and communities have advised that the NWMO should put resources in place now to support transportation work and dialogue, which in future years will become a more prominent component of the program.

As also described in the Plan, the NWMO Advisory Council has emphasized that technical and social considerations of transportation must be a key priority for the NWMO for the five-year planning period. The Advisory Council has urged that the NWMO take timely action to understand public perceptions of risk around transportation, with engagement designed to explore concerns and provide opportunities to address them. Going forward, the NWMO's specific activities will also be guided by the many suggestions received for the broad scope of engagement required to involve all those potentially affected.

The increased emphasis on transportation planning, and recognition of the need to understand and address public perceptions of risks around the transportation of used nuclear fuel, reflected in the revised Plan, was well-received by commenters. Looking forward, commenters suggested there will be a need to create broader awareness of transportation studies once completed by the NWMO; discuss in a fulsome way any considerations and impacts along potential transportation routes on environment and infrastructure; and bring greater clarity to what is meant by the term "social acceptability" and from whom the NWMO intends to seek this.

Continuously Improve Technical Knowledge

The 2015–2019 Implementation Plan also brought together in a single program stream the NWMO’s ongoing work to advance technical knowledge to support the implementation of Canada’s plan.

This reflects the importance of the NWMO’s collaboration with universities and international partnerships to stay abreast of and contribute to the advancement of developments in the field of used nuclear fuel management. This work will be increasingly important over the next five years as the NWMO develops and refines site-specific designs as assessments of potential host areas continue.

As described in the Plan, in order to continuously improve technical knowledge, the NWMO maintains a multi-faceted program. This program includes collaboration with waste management organizations around the world and international agencies to advance knowledge through design refinements and co-operative research; partnership with universities in Canada and internationally; and support for post-secondary education.

The NWMO’s ongoing work to advance technical knowledge outlined in the Plan was well-received by commenters, and no concerns or suggestions were expressed.

Other Comments

Commenters highlighted and made suggestions concerning a number of overarching themes, each of which continues to be an area of the NWMO’s work, and more detailed reporting is expected as the siting process advances.

- » The approach to interweaving Aboriginal Traditional Knowledge into NWMO plans and assessments is a topic of ongoing conversation in briefings and open houses and is an active area of discussion and collaboration with communities as detailed plans begin to be developed in each siting area. In the context of the NWMO’s first strategic objective, “Build Sustainable Relationships,” one commenter underlined that as the NWMO advances with its work, greater clarity will be important, specifically on how plans will be adapted as a result of insights from Aboriginal Traditional Knowledge.
- » As the NWMO advances with discussion of “partnership,” and its understanding that communities in an area will need to work together to implement the project, it is hearing that it needs to be precise in its language and be clear that engagement is inclusive and respectful. For instance, it heard, “The contents of this document reflect the importance that First Nations’ meaningful engagement play in this process.” However, it also heard about opportunities for improvement, “the document mentions engagement of the ‘Canadian public’ as well as engagement of the ‘Canadian public and Aboriginal peoples.’ It is important that a distinction is made in terms of which instances *only* the Canadian public is being engaged and how

this decision is made, and which instances *both* the Canadian public and Aboriginal peoples are engaged.”

As well, the NWMO was advised, “There is a spectrum in which engagement can take place, and in this context, it is crucial that engagement is conducted in a meaningful and transparent manner. NWMO has been proactive and collaborative in this front; presenting some information as to how NWMO ensures that engagement is carried out in a meaningful way would provide a better opportunity to monitor and improve the engagement process.”

- » The discussion of ‘risk’ related to the project is also a continuing theme – in particular that there be open and frank discussion of both benefits and risks. As one commenter suggested, “All information sessions must be conducted in a transparent manner that includes the disclosure of both all risks and benefits to communities that are considering entering the site selection process.”

Commenters also suggested areas for future consideration and discussion, including:

- » How will willingness be defined; who will need to be willing; and what about the principle of Free Prior and Informed Consent?
- » The pace of implementation and implementation time frames: too slow, too fast, what have we learned about an appropriate pace?

Overview of Key Refinements

The table that follows briefly summarizes the key refinements made to the draft Plan in response to comments received. Other minor edits, revisions and changes were also initiated by the NWMO over the course of the internal review process to bring greater clarity to the discussion of NWMO plans. Comments and suggestions that were received about challenges that need to be addressed going forward are summarized and discussed later in this document.

Page Number (Refined Plan)	Comment Received and Refinements Made
Page 1	Updates made to the text to reflect this document is no longer a draft for discussion, but has been revised in light of comments and represents the current plan of work.
Page 2	In response to queries about the communities that still remain in the siting process, the Executive Summary was revised to include a footnote listing these potential host communities. As of the publication date, the Ontario communities of Blind River, Central Huron, Elliot Lake, Hornepayne, Huron-Kinloss, Ignace, Manitouwadge, South Bruce, and White River are participating in the NWMO's siting process.
Page 5	An update was made to the first bullet point under "Collaboratively Implementing the Site Selection Process" to reflect the conclusion of additional studies since the publication of the Draft document in October 2014. Studies have been concluded in eight communities, and continue in 13 others.
Page 6	Text was revised under "Providing Financial Surety" to clarify that segregated funds are for the sole purpose of funding "the implementation of the deep geological repository and facilities."
Page 10	The section "Regulatory Oversight of Adaptive Phased Management" was revised and enhanced to reference the relevant federal legislation and include additional details about the various Canadian Nuclear Safety Commission (CNSC) licences required throughout the life cycle of the project (i.e., construction, operation, decommissioning, etc.). Corresponding text edits regarding CNSC licences were also made throughout the document.
Page 13	In response to questions about other sources of used nuclear fuel, a footnote was included to clarify that a small amount of used nuclear fuel comes from research reactors.
Pages 14–16	The NWMO updated the illustration of the deep geological repository and accompanying text to reflect refinements to used fuel container designs and associated handling/packaging methods. The new illustrations show the smaller used fuel container emplaced in the deep geological repository using a horizontal emplacement method and bentonite buffer box.

Page Number (Refined Plan)	Comment Received and Refinements Made
Page 24	Text in the final paragraph regarding the NWMO's Transparency Policy and Engagement Procedure was clarified in order to specifically note that the NWMO regularly reports to the public on its progress in implementing Adaptive Phased Management (APM).
Page 25	<p>Text was revised in response to a suggestion that the NWMO specifically commit that commentary from interested individuals will not only be sought, but also considered (3rd bulleted item).</p> <p>In response to a specific comment about the list of governments with which the NWMO will develop and maintain relationships, First Nations governments were added to the list that includes federal, provincial and local governments (8th bulleted item).</p>
Page 30	The NWMO initiated a change in the document to remove the detailed description of the siting steps on page 29 of the Draft Plan and replace it with a high-level summary. Although the detailed description of the siting process continues to guide the NWMO's work, the description is not fully comprehensive. As the NWMO works with communities in the siting process, it continues to learn and refine its activities (for example, in response to the advice of residents of siting communities, the NWMO began engaging First Nation and Métis communities and communities in the surrounding areas much earlier in the siting process).
Page 32	The NWMO initiated refinements to the introductory text under "Focus of Phase 2 Preliminary Assessments" to enhance clarity.
Pages 43–44	In response to questions about the NWMO's membership and financing, the bulleted text on page 44 was revised to note that the NWMO will continue to publish the audited financial statements for nuclear fuel waste trust funds established by the Members and Atomic Energy of Canada Limited, and provide updates to confirm that they are meeting their financial obligations. It was also noted on page 43 that the NWMO will produce an updated cost estimate of APM in 2016, and a related edit was made to the bulleted list on page 44.

Key Challenges

The NWMO received comments about the ongoing challenges and issues that will need to be addressed in the next five years as part of implementing Canada's plan and that will need to be considered in the development of future plans. Comments on challenges are briefly described below.

Ensure broad understanding of the project – A number of commenters highlighted the importance of building broad public awareness and understanding of Adaptive Phased Management (APM), and made suggestions as to how the Implementation Plan could contribute to this goal by providing additional details and information. Even though the Implementation Plan is not intended to serve as a comprehensive description of APM and the deep geological repository (see NWMO brochure, *Description of Canada's Repository for Used Nuclear Fuel and Centre of Expertise*), the questions and comments received suggest that the Plan is an important document for communicating to the public the status of the project and specific details about project components. For instance, one commenter asked if the Centre of Expertise might also serve as a centre for postclosure monitoring, and if so, what this might entail.

Consider the potential impacts of the project over its lifetime – Some of the input the NWMO received directed it to highlight the detailed lifetime impacts of APM on a potential host community. For example, one individual suggested, "there needs to be much more mention of what the project will cause to happen over the lifetime of the project," and that communities will need to consider how the deep geological repository will be managed in the long run. Another individual urged us to consider future health and safety procedures with a list of suggestions, and another individual suggested the NWMO speak to

residents of potential host sites to better consider the potential impacts to valued ecosystem components. This last suggestion is an activity that is currently being carried out as part of preliminary studies, and that interweaves cultural and environmental traditional knowledge gained through engaging Aboriginal peoples, an approach which was noted and valued by a number of commenters.

Build confidence in the safety of transporting used fuel – Interest and awareness about the issue of transporting used nuclear fuel continue to grow, and a number of comments highlighted the importance of enhancing public confidence in the safety of transportation plans. Engaging the public and addressing their questions and concerns continue to be seen as a challenge that will need to be addressed going forward.

Build awareness, understanding and acceptance of the project in siting areas – The NWMO continues to hear advice regarding the challenges associated with building public support within a potential host community and area. A number of commenters underlined the importance of continuing a program of creating opportunities for high-quality public engagement.

Build capacity to implement the project – One commenter advocated for university endowments and/or the creation of scholarships to encourage Aboriginal students to pursue studies in engineering and science.

The NWMO also received comments related to areas beyond the NWMO's mandate, such as those that advocate for alternative approaches than the one the Government of Canada accepted in 2007. For example, two submissions suggested revisiting the recommended approach to place all Canada's used nuclear fuel in a single repository in a willing and informed host community and instead have the used fuel remain at existing storage sites.

Dialogue Continues

The NWMO invites comments and suggestions about its work programs and plans, even after the close of the official comment period for the 2015 to 2019 Plan. All comments are welcome as the NWMO continues to develop and adapt its plans.



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