



NUCLEAR WASTE MANAGEMENT ORGANIZATION SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

Implementing Adaptive Phased Management 2016 to 2020



What We Heard – Comments Received
About *DRAFT PLAN*

JUNE 2016

Introduction

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 every year. 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 2,400 individuals and organizations that had previously expressed interest, discussed with community liaison committees and others involved in the siting process, 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 40 individuals and organizations, and community liaison committees about the most recent plan, *Implementing Adaptive Phased Management 2016 to 2020 – Draft for Public Review*, and how the NWMO has taken these comments into account

in work going forward.

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

1. The draft plan is built around eight 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

Comments received on the NWMO's strategic objectives suggested that the objectives are appropriate for the phase of work. Comments credited the NWMO with implementing a "robust methodology" that instills confidence in the organization's assessments and conclusions. The addition of a new strategic objective (see below) was welcomed, and one commenter suggested that in addition to discussing public health and safety throughout the plan, the NWMO also consider the addition of an objective focused on protecting public and worker health and safety.

The new objective was seen by commenters as appropriate, and a few revisions were suggested, mainly to remove aspects of the discussion around advance planning for environmental assessment and related regulatory approvals to a dedicated section on regulatory oversight on page 10. Other small changes were made to the list of actions beginning on page 44 so that they are consistent with related actions elsewhere in the document.

As part of the draft Implementation Plan review, NWMO staff met with community liaison committees and others involved in the siting process to seek input on new aspects of the plan, including the new strategic objective. In these discussions, the NWMO heard that the strategic objectives as laid out in the plan, including the new strategic objective and the NWMO's planned activities (including an active program to involve communities in key aspects of this work), are appropriate.

New to This Implementation Plan: Planning for Construction and Operation of the Centre of Expertise and Deep Geological Repository

In the 2016 to 2020 Implementation Plan, the NWMO introduced one new objective: Advance planning and capabilities for the construction and operation of the deep geological repository and the associated Centre of Expertise at the site selected to host the project.

Introducing this new strategic objective enables the NWMO to work closely with communities to initiate planning for these important future phases of work. Placing new focus on these future steps is responsive to what the NWMO heard through past public reviews of APM implementation plans. People told the NWMO they want to know more about future phases of work. Similarly, communities engaged with the NWMO in the site selection process wish to know more about activities that would take place once a decision is taken on the host site and how we can begin to prepare for them together.

As part of its 2016 to 2020 work plan, the NWMO will work with communities engaged in the site selection process to initiate important preparatory work in support of this eventual expansion of local activity at the selected site. This advance planning will make it possible for the project to proceed expeditiously once the preferred location is identified, and for the community to be prepared to fully participate.

Reference Planning Timelines

The 2016 to 2020 draft Implementation Plan included a discussion of the evolving planning timelines for the implementation of the APM Project (page 21), including how long Phase 2 assessments will take to complete and when a preferred location will be identified (page 33).

In discussions with community liaison committees and others, there were some comments about a desire to see the siting process advance more quickly. The escalation

of NWMO activity once a preferred site is selected for the APM Project outlined through the activities described in the new strategic objective was seen to be an important addition to the process in light of the longer planning timelines.

Through individual submissions on the draft plan, the NWMO continues to receive some comments on the pace of implementation of the siting process. Some suggested the process should move more quickly; others appreciated the time and deliberate approach being taken to learning.

Other Comments

Commenters highlighted and made suggestions concerning a number of additional themes important to the NWMO's work.

- » The NWMO received commentary and questions regarding the eventual transportation of used nuclear fuel to a future repository with an informed and willing host focused on the safety and security of these shipments. Various commenters indicated a desire to know additional details about transportation security, planning, and potential routes, and some offered specific guiding input and descriptions of road and rail conditions in their home communities.
- » Some commenters suggested more detailed information be included in the plan about how Aboriginal peoples will be engaged and the duty to consult addressed.
- » Two commenters wrote to express their preference for an alternative management approach for used nuclear fuel than a single deep geological repository for all Canada.

Overview of Key Refinements

The table that follows briefly summarizes 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
Throughout	Text was updated throughout the document to address comments related to Canada's licensing process for nuclear facilities and the Canadian Nuclear Safety Commission's role. Text was also updated to provide additional details related to NWMO activities in this phase of the siting process (Step 3, Phase 2).
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 input received during the review period, a minor clarification to wording in the fifth paragraph was made to reflect that testing of the engineered barriers will be conducted with the objective of demonstrating that they meet all safety requirements.
Page 3 and throughout	To be consistent with terminology used in other NWMO publications, references to "Aboriginal Traditional Knowledge" have been revised to refer to "Indigenous Knowledge."
Pages 4, 20, 28, and 37	Minor refinements were made to the text of the strategic objectives repeated throughout the plan to ensure consistency with the objectives as published in the NWMO's 2015 Annual Report.
Page 6	Updates made to the section <i>Collaboratively Implement Preliminary Assessments</i> to reflect work completed since the publication of the draft plan.
Page 13	Revision to the description of used nuclear fuel to update the number of bundles generated every year, and enhanced the description of the hazard presented by the used fuel.
Page 16	Revised the description of the deep geological repository to reflect updated assumptions regarding the surface area required to host the project's associated surface facilities.
Page 33	In response to a commenter who requested more information about the Geoscientific Review Group and its role, the text box <i>Review by Geoscientific Review Group</i> was included in the revised plan.

Page Number (Refined Plan)	Comment Received and Refinements Made
Page 35	Included more detail in description of work during 2016 to 2020: “Undertake geoscientific assessment of study areas in both crystalline and sedimentary rock settings through such studies as: airborne geophysical surveys, mapping to observe general geological features, detailed geophysical mapping, seismic reflection studies, and a limited number of boreholes.”
Pages 38, 40, 41, 43, and 53	Text relating to environmental assessment, licensing, and/or the regulator’s role in review and oversight has been clarified, revised, and/or moved from these pages in order to focus this discussion in the <i>Regulatory Oversight of Adaptive Phased Management</i> text box found on page 10.
Page 39	A text box (<i>Focus on Safety</i>) was reinserted in the plan to underline the commitment to safety as a theme throughout the document.
Page 48	In response to a suggestion, specific mention was added to continuous learning, and specifically: “Reflect upon lessons learned from work to date on the Ontario Power Generation deep geologic repository for low- and intermediate-level waste.”
Page 49	Additional discussion was added to better outline outreach and engagement activities related to transportation planned for the 2016 to 2020 period.
Page 51	In response to input received, revisions were made to text to clarify and better contextualize the discussion of the volume of used nuclear fuel to be managed. A more detailed discussion of this issue will be carried out in future NWMO publications.
Pages 58	In response to input received, the glossary was edited to replace references to “nuclear waste” with “radioactive waste” in order to ensure greater clarity.

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 – One commenter underlined the importance of the NWMO sharing the results of the NWMO's research projects with the public, understanding that citizens will be decision-makers in the siting process and will require "reliable, factual information."

Build confidence in the safety of transporting used fuel – As noted in last year's plan and associated *What We Heard* document, there is continued interest and awareness about the issue of transporting used nuclear fuel, and a number of comments highlighted the importance of enhancing public confidence in the safety of transportation plans.

Engaging the public along potential transportation routes, and addressing their questions and concerns was mentioned as a challenge that will need to be addressed going forward. This includes addressing the concerns of those in urban and rural communities, as well as the traditional territory of First Nation and Métis peoples. In one submission received as part of the plan's review process, a commenter provided detailed characterizations of the rail and road conditions around their community, including variances in conditions over the winter months, and the effects of road closures on northern communities

with limited transportation links.

Concerns about security and malicious events were also cited by a few commenters concerned about the vulnerability of shipments over long distances.

Build awareness, understanding and acceptance of the project in siting areas – The NWMO continues to receive advice regarding the challenges associated with building public support within a potential host community and area. The NWMO continues to hear concerns that events in other jurisdictions (for example, the 2011 Fukushima accident, the progress of siting processes in other nations, or the closure of nuclear facilities in Quebec) will affect the social acceptability of the project. The estimated cost of APM and similar international projects were also cited by one commenter as potentially affecting the social acceptance of APM.

A number of commenters underlined the importance of continuing a program of creating opportunities for high-quality public engagement, especially among First Nation communities. The pace of implementation was highlighted as a concern by a few commenters. The importance of the Crown's duty to consult Aboriginal peoples was also highlighted by a number of commenters.

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 determined in 2007. For example, one submission suggested that for reasons of cost and social acceptability, the used fuel should 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 2016 to 2020 Plan. All comments are welcome as the NWMO continues to develop and adapt its plans.

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