



NUCLEAR WASTE MANAGEMENT ORGANIZATION SOCIÉTÉ DE GESTION DES DÉCHETS NUCLÉAIRES

# Implementing Adaptive Phased Management 2017 to 2021



What We Heard – Comments Received About *DRAFT PLAN*



May 2017

# 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, every year, 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 2,400 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 individuals and organizations, including community liaison committees in the communities in which we work. Transparency is one of the NWMO's five fundamental values, and through this report and the others in our annual What We Heard series, we demonstrate 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

A draft of the 2017 to 2021 plan was released for public comment in August 2016 and between then and October we received comments from readers on a variety of topics, including the five general questions posed in the draft. We continue to hear that the eight strategic objectives and associated activities are largely appropriate, though one commenter noted that future iterations of the plan might consider strengthening the NWMO's commitments to the safety of workers and the environment. In response to this recommendation, additional material was developed for the revised plan and we will look for opportunities to broaden the discussion of these topics in future years.

The ongoing strength of the NWMO's engagement program was also noted in a positive light, and a number of commenters specifically highlighted our continuous and responsive engagement with local communities, indigenous peoples, and the wider Canadian public of all ages.

## Other Comments

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

- » In general, we heard that this year's plan contained an improved discussion on the role of the regulator, and as in past years, we received some comments from governments, ministries and agencies regarding specific additions, changes or clarifications. As the NWMO continues to implement Adaptive Phased Management, interaction with these stakeholders has increased and the dialogue produced through the production of the annual Implementation Plan has served as a valuable forum for information exchange.
- » The NWMO received a range of commentary and questions regarding the eventual transportation of used nuclear fuel to a future repository with an informed and willing host. There was a desire to have access to more information regarding transportation safety and security, and to know additional details about planning and potential routes. A few commenters also offered specific guiding input and descriptions of road and rail conditions in their home communities.
- » Four commenters wrote to express their preference for an alternative management approach for used nuclear fuel in Canada, including used fuel recycling through advanced fuel cycles, transmutation of used fuel to an inert material, and/or ending nuclear power production in Canada.
- » Three commenters were interested in continuing to follow our work in engaging and involving youth and Indigenous people in our activities and in the economic opportunities created by APM, including opportunities for developing a skilled workforce through training and building skills in Indigenous communities.
- » We continue to receive input from a variety of stakeholders highlighting the importance of meeting or exceeding all applicable federal and provincial regulatory standards and requirements for protecting the health, safety, and security of humans and the environment. One commenter suggested that the NWMO work to incorporate the protection of the environment into future iterations of our eight strategic objectives.
- » The NWMO continues to be encouraged to look for opportunities to make this document, as well as other material, more accessible, concise and with use of plain language.

# 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
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 5	Revised second bulleted item to reflect the publishing of the Indigenous Knowledge Policy in 2016.
Page 7	Revised to acknowledge the reconstituted Council of Elders and Youth.
Page 16	Reference to “containers” replaced with “packages” to distinguish between certified transportation packages and used fuel containers for emplacement in the repository.
Page 20	Revised text of final bulleted item to note the engineered-barrier system will be proof-tested with the objective of demonstrating that it meets design requirements.
Page 25	In response to input received during the Plan’s review period, included additional information on the subject of used fuel recycling and the NWMO’s watching brief on advanced fuel cycles.
Page 32	Noted the potential for early identification of Valued Components.
Page 43	Additional text was included to enhance the <i>Focus on Safety</i> discussion by acknowledging ongoing NWMO work conducting safety case studies.
Page 48	In response to a question about the diagram of a UFTP layout, text was revised to clarify that assessments will include verification of the noted design factors.
Page 52	A new bulleted item was added: <i>Brief federal and provincial government departments on its technical program to continuously improve technical knowledge related to health, safety and the environment.</i>
Page 56	Text of third paragraph revised to include the latest trust fund balances.
Page 63	In response to a suggestion from a commenter, a list of abbreviations has been added following the glossary.

# 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.

**Communicating Decisions** – One commenter noted the potential challenges associated with communicating the rationale for decisions regarding the number of communities, especially as the NWMO narrows down to a single community by 2023.

Communicating the basis for which communities are removed from the site selection process is an important aspect of the NWMO's engagement program, and is a prime consideration for the organization as preliminary technical studies move towards completion.

Another communications challenge was also noted, specifically that of communicating the results of technical studies in a manner that builds confidence in safety with the public.

As progressively advanced studies are conducted, the NWMO understands the importance of developing material that clearly communicates and is understood by specialists, the communities involved in the siting process and the public at large. The NWMO's ongoing efforts include translation to local Indigenous languages, using plain language in documents meant for the public, and the production of specially designed brochures or executive summaries that highlight key findings from large, complex reports.

**Advancing studies in siting areas** – Another significant challenge identified by commenters is to ensure we are both using best practices, and also working respectfully with the people living in municipal and Aboriginal communities in the siting area, when planning and conducting field studies.

Challenges can range from physically accessing remote study areas, to ensuring we have respectfully reached out to and engaged the many people in the area with an interest in the land to address their questions and concerns before proceeding. The NWMO continues to learn from the communities we are working with on how best to involve people in the area in the planning and conduct of studies.

**Refining and adapting the plan** – Some commenters reflected on our mandate and commitment to be adaptive to broader social forces. This includes aligning the

NWMO's activities with changing energy and environment policy as well as responding to technological innovation, including the opportunity to reprocess or reuse used fuel.

The NWMO continues to engage with governments to monitor and understand refinement and changes to energy and environment policies to be addressed in the implementation of Canada's plan going forward.

With respect to monitoring and responding to technological innovation, a decision to reprocess used nuclear fuel would require a decision by governments and energy producers, considering commercial feasibility and a fleet of advanced nuclear reactors. The NWMO produces a regular watching brief on the development of advanced fuel cycles in order to monitor evolving conditions. This report, and summary brochure, is published yearly and is entitled *Watching Brief on Advanced Fuel Cycles*. Both the brochure and technical report is available for public review at [www.nwmo.ca](http://www.nwmo.ca).

**Building Confidence in Transportation Plans** – Commenters continued to reflect on the challenge associated with the transportation of used nuclear fuel required by Canada's plan. Specifically, the need to enhance public confidence in the safety of transportation plans was cited as a key challenge. Engaging the public along potential transportation routes, and addressing their questions and concerns, was identified as a particularly difficult challenge, which NWMO will need to address in the future. This is expected to involve addressing the concerns of those in urban and rural communities, as well as the traditional territory of First Nation and Métis peoples.

To this end, in 2016 the NWMO began early engagement on this topic with Canadians in order to understand priorities, questions and concerns regarding the transportation of used nuclear fuel. The direction and input received through this dialogue will be used to develop a transportation planning framework that is responsive to priorities and concerns of Canadians. To review ongoing input, please see our end of year report on *Transportation Themes, 2014-2016: What We Heard about Transportation Planning from Working with Communities*, published at [www.nwmo.ca](http://www.nwmo.ca).

# 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 2017 to 2021 Plan. All comments are welcome as the NWMO continues to develop and adapt its plans.





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For more information,  
please contact:

**Nuclear Waste Management Organization**  
22 St. Clair Avenue East, Sixth Floor  
Toronto, Ontario M4T 2S3, Canada  
Tel.: 416.934.9814 Toll Free: 1.866.249.6966  
Email: [contactus@nwmo.ca](mailto:contactus@nwmo.ca)  
Website: [www.nwmo.ca](http://www.nwmo.ca)

