10 March 2026

CIAR File No: 88774

Kathryn MacCarthy
Panel Manager
Impact Assessment Agency of Canada

Submitted by email: nuclearwaste-dechetsnucleaires@iaac-aeic.gc.ca

Subject: NRCan Federal Authority Advice Record Response for Deep Geological Repository for Canada's Used Nuclear Fuel Project

On January 5, 2026, Natural Resources Canada (NRCan) received a request from the Impact Assessment Agency of Canada (IAAC) to comment on the Initial Project Description, and Summary of the Initial Project Description for the Deep Geological Repository for Canada's Used Nuclear Fuel (DGR) project, located near Ignace, Ontario and to complete the federal authority advice record (FAAR) form. This response has been revised to correct an error and replaces NRCan's response submitted February 4, 2026

Pursuant to section 23 of Impact Assessment Act (IAA 2019), NRCan is participating in the impact assessment of the DGR project. NRCan has reviewed the Initial Project Description and Summary of the Initial Project Description as a subject matter expert in geosciences, nuclear waste management policy, nuclear energy economics and policy, explosives safety, manufacturing and storage. NRCan's comments are included in the Attachment 1: Federal Authority Advice Record (FAAR) form. An additional reference regarding selecting an approach for the long-term management of nuclear fuel waste is in Attachment 2.

Additionally, NRCan recommends informing the Proponent that the Open Science and Data PlatformOpen Science and Data Platform (OSDP) led by Natural Resources Canada provides access to diverse science, data and regulatory information that could be used to inform the assessment. This centralized data hub can guide the Proponent to support early planning and help align project proposals with regulatory expectations for faster and more efficient reviews. For example, the dataset Provincial Groundwater Monitoring Network - (Government of Ontario) is just one dataset, which may be of interest. NRCan is available to meet with the Proponent to share in greater detail the information accessible through the Platform to help inform this review. The team can be reached at osdp-psdo@nrcan-rncan.gc.ca.

If you have any questions, comments, or concerns, please contact Natalie.Robinson@nrcan-rncan.gc.ca.

Sincerely,

<Original signed by>

Natalie Robinson
Senior Impact Assessment Officer
Impact Assessment Division, Office of the Chief Scientist
Natural Resources Canada

CC: Annie Montpetit, Acting Team Lead, Impact Assessment Division
Sonja Kosuta – Senior Director, Impact Assessment & Science Capacity

Attachment 1 Federal Authority Advice Record Deep Geological Repository for Canada's Used Nuclear Fuel Project
Attachment 2 Overview of Governor in Council Decision to select the Adaptive Phased Management approach
Attachment 3 Order Selecting an Approach for the Long-term Management of Nuclear Fuel Waste, Extract Canada Gazette, Part II June 27, 2007, Department of Natural Resources

Attachment 1: Federal Authority Advice Record (FAAR) - Deep Geological Repository (DGR) for Canada's Used Nuclear Fuel Project

Registry File: 88774

Please submit the completed form by **February 4, 2026** via email to nuclearwaste-dechetsnucleaires@iaac-aeic.gc.ca[1]. In order to be posted on the Registry, and to align with the Official Languages Act, IAAC is requiring that you submit the FAAR form, or a summary of it, in French and English.

Department/Agency Contact Information

Submission Date	February 4, 2026
Department/Agency	Natural Resources Canada/ Office of Chief Scientist
Lead Contact, Title, Work Unit	Natalie Robinson, Sr Impact Assessment Officer, Impact Assessment Division (IAD)
Email, Phone	Natalie.Robinson@nrcan-rncan.gc.ca
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Review the draft Initial Project Description and answer the following questions:

1. Is your department or agency in possession of specialist or expert information or knowledge in its area of expertise that may be relevant to the conduct of an impact assessment of the project?

   Specify the specialist or expert information or knowledge.
   Natural Resources Canada (NRCan) possess the following expertise that may be relevant to the conduct of an impact assessment for this project:

   Geoscience
   -Bedrock geology, seismic hazard
   -Acid rock drainage, and metal leaching. More specifically, the characterization of ore, and mine waste rock

   Explosives
   -Security and safety of explosives manufacturing and storage,
   -Information on the application of the application of the *Explosives Act* and its regulations

   Nuclear Energy
   -nuclear energy economics analysis and industrial policy
   -markets and policy

   Nuclear Waste
   -Radioactive waste management policy, nuclear liability under the Nuclear Liability and Compensation Regulations.

   Does your department or agency have additional information or knowledge on the project not specified above, including information on the geographic, environmental, economic or social context of the project? (e.g. location of protected or sensitive areas, previous history between local communities and proponent or similar projects, local or regional social or economic concerns)?

   In 2009, the Minister of Natural Resources and the NWMO signed a memorandum of understanding (MOU) to clarify respective roles and responsibilities in relation to the long-term management of

used nuclear fuel and consultation with Indigenous peoples. The MOU acknowledges that the Crown bears responsibility for the discharge of any Crown duty to consult that may arise in relation to the Project and that NWMO bears responsibility to meet its obligation under the *Nuclear Fuel Waste Act* to consult with Canadians and Indigenous peoples as it proceeds to implement Adaptive Phased Management.

The MOU recognizes these distinct roles and requires the NWMO to report annually to NRCan on its Indigenous engagement activities. As a result, NRCan has additional information regarding the scope and nature of the NWMO's Indigenous engagement activities. Subject to the NWMO's agreement, this information could be provided to support the impact assessment process should additional details be required.

2. Will your department or agency exercise a **power, perform a duty or function**, or provide **financial assistance**, related to the project to enable it to be carried out in whole or in part?

As relevant,

a) Specify the power, duty or function, or financial assistance, and the likelihood that it will be required to construct the project, as either Required, Potential, Likely, Unlikely or Not Required

NRCan, through its role in the administration of the Explosives Act, is likely to exercise a power or perform a duty or function that would enable the proponent to meet required federal approvals, as identified in the Initial Project Description.

The Minister of Energy and Natural Resources is responsible for administration of the *Nuclear Fuel Waste Act* (NFWA), the federal legislative framework pertaining to the long-term management of Canada's used nuclear fuel. The NFWA was enacted in 2002 and establishes the oversight that the Government of Canada and the Minister of Natural Resources exercise with regards to the long-term management of nuclear fuel waste in Canada. The NFWA also clarifies the responsibilities of the Nuclear Waste Management Organization (NWMO) and the nuclear energy corporations. The NWMO is implementing the proposed deep geological repository project as a requirement of the NFWA.

Natural Resources Canada (NRCan) ensures that all ministerial responsibilities under the NFWA are met. As such, NRCan possesses expert information on this legislative framework, including the legislative responsibilities of the NWMO and powers, duties and functions the Government of Canada has and will exercise under the NFWA (further information provided below and in Attachment 2).

b) Describe any associated Indigenous or public consultation, including timelines, and elaborate on any potential opportunities for consultation coordination with the impact assessment process, if an impact assessment is required

In the event that an explosives licence is required, NRCan may consult the Indigenous communities potentially affected by the project.

c) Describe any associated information requirements (e.g., alternative means assessment, habitat offsetting), and specify those that may be coordinated with the impact assessment process, if an impact assessment is required.

Not applicable.

d) Identify any associated project-specific guidance or issues of which the proponent should be aware, or information the proponent should provide

See Table 1 and or Attachment 2.

Nuclear Liability and Compensation Act

The operator of the DGR must meet its nuclear liability obligations under the *Nuclear Liability and Compensation Act* (NLCA), which is administered by Natural Resources Canada (NRCan). The NLCA establishes a compensation and liability regime in the unlikely event of a nuclear incident resulting in civil injury and damages. Under the NLCA, the operator of a nuclear fuel waste management facility is responsible to pay up to C$13 million for civil damages resulting from an incident at that installation, and the operator must maintain financial security for this amount.

Obligations under the NLCA are distinct from those under the *Nuclear Safety and Control Act (NSCA)*, which is administered by the Canadian Nuclear Safety Commission (CNSC). The operator of the Deep Geological Repository for nuclear fuel waste will need to ensure that it is designated by NRCan as a nuclear installation under the NLCA. The designation must come into force on the day on which the site receives its operating licence from the CNSC. Designation under the NLCA can take from 1-2 years to complete. The designation process should be initiated with NRCan immediately after NWMO submits its application for an operating licence to the CNSC.

NFWA

NRCan and the Minister of NRCan have statutory authorities and responsibilities to exercise functions and powers related to administration of the NFWA, these includes,

- Monitoring NWMO activities and reviewing NWMO annual and triennial reports to ensure compliance with the legislation.
- Tabling the NWMO's annual and triennial reports in both Houses of Parliament.
    - The Minister of NRCan must also issue a public statement on these reports.
- Approving the funding formula based on the Governor in Council selected plan (APM) to ensure the full life-cycle costs of managing nuclear fuel waste over the long term are accounted for; and
    - The funding formula will be subject to approval by the Minister of NRCan following the NWMO's first annual report after the issuance, under section 24 of the NSCA, of a construction or operating licence for an activity related to the APM approach.
- Ensuring that audited financial statements indicate the required monies are being set aside by waste owners in established trust funds and are deposited annually.
- carrying out independent public consultations and auditing measures, as required;
- enforcing compliance with the NFWA, as necessary.

The NWMO will continue to be required under the NFWA to submit annual and triennial reports, to engage with the public, interested communities, including First Nation and Métis peoples; and to make their annual and triennial reports public as indicated under the NFWA.

Each annual report following the Governor in Council's decision under section 15 must set out the financial guarantees provided by nuclear energy corporations and AECL in support of implementing the APM approach, updated estimates of total lifecycle costs, the budget forecast for the upcoming fiscal year, the proposed funding formula and its underlying assumptions, and the deposit amounts required from each corporation for the next fiscal year along with the rationale for those amounts.

The NWMO's triennial report, submitted every third fiscal years, must summarize the NWMO's activities over the previous three fiscal years, including an analysis on any significant socio-

economic effects on communities; set out its five-year strategic plan and corresponding budget forecast to implement the APM approach; report on the results of public consultations held during that period; and include the NWMO's Advisory Council's comments on these matters.

e) Indicate whether your department or agency has identified any power that it will not be exercising or may be unable to exercise to allow the project to be carried out, in whole or in part, with reasons; if unsure, explain what must be resolved to increase confidence.

Not applicable.

3. **Using Table 1**, identify project- and context-specific **key issues** based on the expertise within your mandate[1] and the information in your possession. Available information may include your access to databases and corporate knowledge, the draft Initial Project Description, any exchanges with the proponent or others related to the project and known means to address the effects.

For each key issue:

a) Specify the key issue (e.g., specific species and location)
b) Specify the project component or activity linked to the key issue
c) Explain why it is a key issue based on:
    i. biophysical effect pathway(s) from the specific project component or activity
    ii. concerns unique to the project or a priority within your mandate
    iii. the issue being material[2] to decision-making under the *Impact Assessment Act*
d) Potential pathways from key issues that could lead to an impact on Indigenous Peoples and their rights
e) Identify how the issue could be resolved, including through other means than an impact assessment (e.g., other regulatory oversight)
f) Identify additional information the proponent could provide to build confidence about how the issue could be addressed through other means

DGRs are proposed in geology chosen for its technical suitability for containing radioactive waste. The proponent's proposed DGR would permanently contain 5.9 million bundles of used nuclear fuel, which will remain radioactive for thousands of years. It will be important to ensure the DGR's barriers designed to prevent releases are stable over the long-term. Adaptive management will be an important consideration to ensure adverse effects are avoided or minimized over the long term.

Key issues will vary depending on the phase of the project. According to the proponent's IPD, the site preparation and construction phases of the project are anticipated to take 13 years (planned over 2030-2042). Placement of nuclear waste into the repository will begin in the operations phase scheduled in 2043 and anticipated to occur over 50 to 60 years. Once operations are complete, there would be an approximate 100-year phase of extended monitoring, decommissioning and closure. The site would then be decommissioned and closed and the proponent would eventually apply to be released from CNSC licensing. The site would transition into the institutional control that would be established by the Government of Canada and the Province of Ontario.

During the operations phase and extending into the decommissioning and closure phase of the Project, the potential for radiological releases from the Project as well as malfunctions, accidents, and malevolent acts will be key considerations.

IAAC has prepared the following **preliminary list of potential effects that are likely to be key issues** for the integrated assessment.[4] While completing **Table 1**, IAAC requests that, as appropriate

[1] Refer to the Memoranda of Understanding with IAAC.
[2] An issue is material to decision making if its analysis is anticipated to affect the conclusions on (1) whether adverse effects within federal jurisdiction or direct and incidental adverse effects (collectively adverse federal effects) are likely not significant, or of low, medium or high significance; (2) appropriate mitigation measures for significant adverse federal effects; or (3) justification in the public interest.

based on your department or agency's mandate and expertise, you validate this list, add precision or rationale where appropriate, and recommend any additional key issues for consideration. For a federal work or undertaking, such as nuclear energy works, a broader range of effects are within federal jurisdiction, including socio-economic effects.

- Effects to Biological Environment: vegetation (terrestrial, riparian and wetland environments), wildlife, reptiles and amphibians, fish and fish habitat, birds, species at risk
- Effects to Physical Environment: geology and geochemistry, soils and sediment, ambient radioactivity, air quality/emissions, surface water quality/quantity, groundwater quality/quantity, effects to Lake Ontario
- Accidents and malfunctions and effects of the environment on the project
- Impacts to Indigenous rights, current use of lands and resources for traditional purposes, physical and cultural heritage of Indigenous peoples and sites of archaeological importance, with a focus on potential archaeological resources on land or water, and species of cultural importance
- Effects to the health, social and economic conditions and the positive and negative consequences of these changes that are likely to be caused by the carrying out of the designated project

Natalie Robinson,

Name of Departmental / Agency Responder

10 March, 2026

Date

Attachment 1 Table 1 Key Issues to inform the integrated assessment process

This table should outline key issues to inform the integrated assessment process, including whether an impact assessment is required and, if so, the scope of the assessment and tailoring of the Tailored Impact Statement Guidelines.
Key issues are the major concerns directly related to a project component or activity, the analysis of which is anticipated to be material to decision-making under the *Impact Assessment Act*.
Federal authorities' advice should be guided by the identification and resolution of key issues. If an impact assessment is required, it will be focused on key issues.

Comment ID	a) Key issue	b) Project component or activity	c)(i) Biophysical effect pathway(s)	c)(ii) Concern unique to the project or a priority within your mandate	c)(iii) Material to federal decision-making	d) Impacts on Indigenous Peoples and their rights	e) Means for issue resolution	f) Additional information from the proponent

Identify each comment by your organization's acronym and a sequential comment number.
 	
e.g.: IAAC-01
	Specify each key issue (e.g., specific species and location).	*Identify the project component or activity linked to the key issue.*
		
		Be specific about the nature, scale, novelty and complexity of the component or activity.
			Identify the specific effect pathway between the project component or activity and the affected environmental or human receptor (including Indigenous Peoples).	*Describe why it's a key issue within the mandate of your department or agency, including in terms of priorities of the federal government and in terms of anticipated likelihood, severity or uncertainty of effects.*
				
				Identify if the key issue is common for project activities of this nature or in this sector, or whether it is unique to this project due to the project's complexity, size or novelty; a sensitive or rare receiving environment; and/or proximity of sensitive environmental or human receptors (including Indigenous Peoples).
					Describe why the key issue is material to decision-making as either:
					• *an adverse effect within federal jurisdiction, or a direct or incidental adverse effect, that may be significant based on available evidence including:*
					  ○ *federal experts' knowledge and experience with past project assessments;*
					  ○ *presence of sensitive species, habitats or human receptors (including Indigenous Peoples);*
					  ○ *novel or complex project activities, components or technologies;*
					  ○ *high uncertainties in effects or in the effectiveness of mitigation measures;*
					  ○ *unknown or unproven mitigation; or*
					• *a factor for the justification in the public interest anticipated to be material to decision-making such as a likely positive effect contributing to sustainability, to Canada's environmental obligations or climate change commitments or in supporting governmental priorities, such as reconciliation with Indigenous Peoples.*
						Describe how key issues you have identified within your mandate and expertise may lead to impacts on Indigenous Peoples and their rights.
						
						This advice must be informed by knowledge and input from Indigenous Nations and communities during the comment period, or within the Initial Project Description to support a more accurate, respectful and collaborative assessment.
							Describe how the key issue could be resolved or addressed by:
							• *Any means, including powers, duties, functions, frameworks, policies or guidance for which your department or agency is responsible;*
							• *Any means, including powers, duties, functions, frameworks, policies or guidance from another jurisdiction, including the province;*
							• *Common, proven, well-understood or standard mitigation measures to mitigate the effect or effect pathway(s); or*
							• *Commitments made by the proponent (e.g., in the Initial Project Description).*
								Describe information the proponent could provide, or commitments the proponent could make, that would provide confidence that the issue can be resolved by existing means (to be considered for the final Initial Project Description, future Summary of Issues and response, or (potential) Tailored Impact Statement Guidelines.
								
								Consider whether information, studies, analyses or collaborative work with other authorities would be required to address the issue beyond existing means.

NRCan-01	Metal Leaching (ML)/Acid Rock Drainage (ARD) characterization of blasted and crushed excavated rock placed at surface does not reflect realistic	Excavation of underground openings, including blasting, crushing, and surface placement or handling of excavated rock during site	Blasting and crushing increase surface area and reactivity of excavated rock, accelerating oxidation and weathering processes and	Accurate prediction of long-term geochemical behaviour is a priority within NRCan's mandate, particularly for projects with long operational and post-closure timelines.	Uncertainty in ML/ARD onset and release rates affects confidence in predicted effects and mitigation effectiveness, making the issue material under the Impact Assessment Act.	Changes to groundwater or surface water quality could affect Indigenous use of water and downstream aquatic resources, including intergenerational stewardship considerations.	The issue may be addressed through impact assessment requirements and CNSC licensing using established geochemical characterization guidance and adaptive management approaches.	Provide geochemical testing protocols that reflect the grain size of blasted and crushed rock expected to be placed or handled at surface, and

Comment ID	a) Key issue	b) Project component or activity	c)(i) Biophysical effect pathway(s)	c)(ii) Concern unique to the project or a priority within your mandate	c)(iii) Material to federal decision-making	d) Impacts on Indigenous Peoples and their rights	e) Means for issue resolution	f) Additional information from the proponent
	grain-size conditions, creating uncertainty in predicted metal leaching and acid rock drainage behaviour.	preparation, construction, and operations.	increasing the rate of acidity and dissolved metal release to groundwater and surface water.					incorporate results into ML/ARD and water quality predictions.
NRCan-02	Reliance on lithogeochemical data and logged mineralogy alone creates uncertainty in determining the potential for acid generation in plutonic lithologies.	Characterization of excavated plutonic rock associated with repository development during site preparation and construction.	Fine-grained or disseminated sulfide minerals not readily identified through visual mineralogy may oxidize, generating acidity and releasing metals that migrate to groundwater and surface water.	NRCan experience indicates that plutonic rocks can contain fine-grained sulfides that are difficult to detect visually, making robust ARD classification a priority.	Potential misclassification of excavated material introduces uncertainty in long-term environmental performance and mitigation planning, making the issue material under the Impact Assessment Act.	Water quality changes associated with unrecognized acid generation could affect Indigenous water use and downstream ecological resources.	The issue may be addressed through impact assessment requirements and CNSC licensing by requiring representative acid-base accounting testing following established guidance.	Provide acid-base accounting results for representative samples from each lithology, including fine-grained plutonic units, consistent with Mine Environmental Neutral Drainage (MEND) 1.20.1 and other applicable characterization guidance.
NRCan-03	Potential water quality effects from aluminum and phosphorus in excavated rock are not adequately assessed.	Excavation and surface management of multiple lithologies, including amphibolite, during site preparation and construction.	Leaching of aluminum and phosphorus from excavated rock may affect groundwater and surface water quality, contributing to toxicity or eutrophication under certain conditions.	NRCan experience in similar geological settings identifies aluminum and phosphorus as environmentally relevant elements, even under non-acidic conditions.	Incomplete assessment of potential contaminant loadings limits confidence in predicted effects and mitigation effectiveness, making the issue material to federal decision-making.	Degradation of water quality could affect Indigenous fisheries, aquatic resources, and traditional water uses.	The issue may be addressed through impact assessment requirements by expanding geochemical testing and integrating results into environmental risk assessment and management planning.	Provide estimated excavation volumes by lithology and include aluminum and phosphorus in static and kinetic testing programs, with results incorporated into environmental risk assessment models.
NRCan-04	ML/ARD characterization does not include overburden, construction materials, or exposed rock faces associated with road development.	Overburden stripping, construction material sourcing, and road construction and development.	Weathering of uncharacterized materials and exposed rock faces may contribute acidity or metal leaching to runoff, groundwater, and surface water.	Comprehensive characterization of all disturbed materials is necessary to support reliable water quality predictions and mitigation planning within NRCan's mandate.	Uncharacterized materials introduce uncertainty in impact predictions and mitigation effectiveness, making the issue material under the Impact Assessment Act.	Potential effects on water resources could affect Indigenous land use, water use, and downstream ecological values.	The issue may be addressed through impact assessment and CNSC licensing by expanding characterization programs to all disturbed materials.	Expand ML/ARD testing to include overburden, construction materials, and exposed rock faces from road development, and integrate results into environmental management planning.

Comment ID	a) Key issue	b) Project component or activity	c)(i) Biophysical effect pathway(s)	c)(ii) Concern unique to the project or a priority within your mandate	c)(iii) Material to federal decision-making	d) Impacts on Indigenous Peoples and their rights	e) Means for issue resolution	f) Additional information from the proponent
NRCan-05	Site Characterization for seismic hazards.			The IPD broadly describes the scale of seismicity recorded to date in the region.				NRCan recommends that the impact statement report acknowledge the issues around estimating seismic hazard in stable cratonic cores in Canada (e.g., long return periods outside of timescale of monitoring).
NRCan-06	Risk that potential excavation-induced shaking from project activity may be felt by the public.			The IPD mentions blasting and processes for limiting vibrations but does not explicitly mention considerations for mining/excavation induced activity.				NRCan recommends, to provide appropriate information in the impact statement report.
NRCan-07	Airborne geophysical survey methodology and timing.			The proponent did not address the methods sufficiently (as outlined on page 98). However, a previously provided detailed technical report clarified the extent of the survey and how the survey was conducted.				NRCan may have follow up questions about the interpretation of the geophysical data in future IA phases.
NRCan-08	Available Baseline data for geological characterization.			There is an updated 3D model that incorporates the data from the three subsequently drilled boreholes. The model presented is based on 3 boreholes for a depth of approximate 1000m. The proponent will have 10 boreholes (p112).				NRCan agrees that an additional ten (10) boreholes will better inform the 3 D model.
NRCan-09	Surface and Subsurface Characterization.			The information on Page 112 does not address the incorporation of the seismic data into the structural interpretation. It does not clearly depict the location and orientation of the larger faults in the region. In addition, it is				NRCan acknowledges that the proposed drilling of 10 additional boreholes and additional mapping will help with the structural

Comment ID	a) Key issue	b) Project component or activity	c)(i) Biophysical effect pathway(s)	c)(ii) Concern unique to the project or a priority within your mandate	c)(iii) Material to federal decision-making	d) Impacts on Indigenous Peoples and their rights	e) Means for issue resolution	f) Additional information from the proponent
				not clear if the lithological contacts were visible.				interpretation which can be explained further during the IA process.
NRCan-10	Alternatives to a Deep Geological Repository.			Natural Resources Canada is responsible for administration of the *Nuclear Fuel Waste Act.*	The Adaptive Phased Management (APM) approach, which involves the isolation and containment of Canada's used nuclear fuel in a deep geological repository, was selected by the Governor in Council as Canada's approach in 2007 under the *Nuclear Fuel Waste Act.* This decision was based on the NWMO's Choosing a Way Forward study (pages 759-1213 of the NWMO's Initial Project Description), which examined alternative approaches for managing used nuclear fuel, and on the Government's consideration of those results. The APM approach was selected because it best safeguards the public and the environment, recognizes that those benefiting from nuclear energy today must manage used nuclear fuel responsibly without unduly burdening future generations, and provides sufficient flexibility to adapt to changing social and technological developments over time. Further details are provided in Annex 2.			
NRCan-11	9.2.3.12 Non-Indigenous Economic Conditions.	Economic benefits of the project.					The NFWA provides a legislative mechanism for monitoring and reporting on economic effects.	The IPD provides a high-level qualitative description of economic factors and considerations. NRCan recommends NWMO to add quantitative references in the impact statement report.

Please insert additional rows as necessary

Attachment 2: Overview of Governor in Council Decision to select the Adaptive Phased Management approach

Purpose of this Annex:
This annex provides an overview of the 2007 Governor in Council decision to select the Adaptive Phased Management (APM) approach as Canada's plan for the long-term management of used nuclear fuel.

2007 Governor in Council Decision:

On May 31, 2007, an Order Selecting an Approach for the Long-term Management of Nuclear Fuel Waste was published in the *Canada Gazette Part II, Vol. 141, No. 13.* The order reads as follows (see attachment 3):

> Privy Council (P.C.) 2007-834 May 31,
> "Her Excellency the Governor General in Council, on the recommendation of the Minister of Natural Resources, pursuant to section 15 of the *Nuclear Fuel Waste Act*, hereby selects the Adaptive Phased Management approach for the long-term management of nuclear fuel waste from among the approaches set out in the November 2005 Final Study by the Nuclear Waste Management Organization entitled "Choosing a Way Forward", that was submitted to the Minister of Natural Resources on November 3, 2005, in accordance with subsection 12(1) of that Act."

The order was accompanied by the following explanatory note:

> "The Order provides for the selection of the Adaptive Phased Management (APM) approach as the approach for the long-term management of nuclear fuel waste from among the approaches set out in the November 2005 final study by the Nuclear Waste Management Organization entitled "Choosing a Way Forward", that was submitted to the Minister of Natural Resources on November 3, 2005, in accordance with subsection 12(1) of the *Nuclear Fuel Waste Act*."
>
> "The APM approach, which was the approach recommended by the Nuclear Waste Management Organization in the study, consists of three phases: the first maintains the waste at the reactor sites while preparing for centralization; the second involves an optional interim step of central storage; and the third ensures long-term containment and monitoring of the waste in a geological repository. The APM approach is also made up of two important components: a management component that will provide opportunities for communities and citizens to participate throughout the site selection process and a technical component to make sure that the best scientific and technical knowledge will be applied for the long-term management of nuclear fuel waste. The APM approach provides sufficient flexibility for waste owners to exercise prudence in view of social and technical uncertainties over the long-term, and enables this generation to put measures in place to safeguard the public in a way that is sustainable, ethically, and socially acceptable and respectful to the environment now and in the future."

Background

In 2002, the Government of Canada enacted the Nuclear Fuel Waste Act (NFWA), requiring waste owners to set aside funding for the long-term management of used nuclear fuel and to establish a waste management organization, the Nuclear Waste Management Organization (NWMO). The purpose of the NFWA is to provide a framework to enable the Governor in Council to make a decision on the management of nuclear fuel waste that is based on a comprehensive, integrated and economically sound approach for Canada.

The Act requires the NWMO to do three things:
- prepare a study of options for the long-term management of used nuclear fuel;
- recommend an option based on that study; and
- implement the option selected by the Government.

Under the NFWA, the NWMO was required to submit its study of options to the Minister of Natural Resources by November 15, 2005. For each of the options considered, the NFWA required the NWMO's study to include:
- a detailed technical description of each proposed approach and to specify an economic region for its implementation.
- a comparison of the benefits, risks and costs of that approach with those of the other approaches, taking into account the economic region in which that approach would be implemented, as well as ethical, social and economic considerations associated with that approach.
- An implementation plan setting out, at a minimum, a description of activities; a timetable for carrying out the approach; the means that the waste management organization plans to use to avoid or minimize significant socio-economic effects on a community's way of life or on its social, cultural or economic aspirations; and a program for public consultation.

The NFWA also required the NWMO to engage with the general public and Indigenous peoples on the proposed approaches and include a summary of the comments received as a result of these consultations on its study.

NWMO 2005 Study

On November 3, 2005, the NWMO submitted a study of options entitled Choosing a Way Forward (available on 759-1213 of the NWMO's Initial Project Description and on the NWMO's Website). The study examined the three options listed in the NFWA: deep geological disposal, storage at the reactor sites, and above- or below-ground storage at a central site to the Government of Canada. In addition, the NWMO provided a fourth option, its preferred option, the APM approach, which was a hybrid of the first three to be implemented within an adaptive management context. The NWMO's study compared the options using eight objectives: public health and safety; worker health and safety; environmental integrity; economic viability; process adaptability; fairness; and community well-being. It found that the APM approach incorporates the most significant advantages of each of the other options, while supporting phased decision-making process which improves process adaptability and fairness to present and future generations.

Review of the 2005 Study

From 2005-2006, the Government of Canada undertook a review of the NWMO's study to ensure the study met the requirements outlined NFWA and to consider the advantages and disadvantages of each of the options, as well as the results of Indigenous and public engagement. The Government review of the NWMO options also considered the policy objective embedded in the NFWA: that the approach should be comprehensive and integrated; be economically sound; ensure waste owners fully meet all their responsibilities; be flexible (i.e., prudent yet timely); encourage ongoing public dialogue; and ensure that social and ethical aspects are considered alongside technical aspects.

The Government review also considered the NWMO's consultation with Canadians and Indigenous peoples. In studying these options, the NWMO held 120 public consultation sessions and numerous full-day dialogues on values, covering a cross-section of the population in every province and territory. All in all, 18,000 citizens contributed directly to the study, while more than 50,000 people expressed interest by visiting the NWMO Web site. In addition, some 500 specialists (technical as well as natural and social sciences) contributed to the study.

The NWMO consulted with the five National Indigenous Organizations, the Métis National Council, the Assembly of First Nations, the Congress of Aboriginal Peoples, the Inuit Tapiriit Kanatami and the Native Women's Association of Canada, as well with regional and local groups to build capacities and relationships. NRCan also entered into contribution agreements with four National Indigenous Organizations (the Métis National Council, the Assembly of First Nations, the Congress of Aboriginal Peoples and the Inuit Tapiriit Kanatami).

Atlantic Canada Opportunities Agency, Canadian Environmental Assessment Agency, National Defence, Environment Canada, Fisheries and Oceans Canada, Foreign Affairs, Health Canada, Industry Canada, Justice Canada, Privy Council Office, Transport Canada and Treasury Board were involved in the review of the NWMO's 2005 study.

Attachment 2: Overview of Governor in Council Decision to select the Adaptive Phased Management approach

Selection of the APM Approach

In 2007, the Governor in Council, on the recommendation of the Minister of Natural Resources, selected the APM approach under the NFWA, and the decision was published in the *Canada Gazette*. The APM approach was selected based on consideration of the factors described above, including its flexibility to address long-term uncertainties and its ability to support the protection of people and the environment in a manner that is sustainable, ethically and socially acceptable, and respectful of future generations. The APM approach, which involves isolation and containment of used nuclear fuel in a deep geological repository, is also consistent with international best practice for the management of used nuclear fuel.

Since the issuance of the Order selecting the APM approach, the NWMO has been responsible for implementing the approach, with ongoing federal oversight by NRCan in accordance with the NFWA.

Extract
Canada Gazette, Part II
June 27, 2007

Extrait
Gazette du Canada, Partie II
Le 27 juin 2007

DEPARTMENT OF NATURAL RESOURCES

MINISTÈRE DES RESSOURCES NATURELLES

Order Selecting an Approach for the Long-term Management of Nuclear Fuel Waste

Décret choisissant la méthode pour la gestion à long terme des déchets de combustible nucléaire

Registration
SI/2007-63 June 27, 2007

NUCLEAR FUEL WASTE ACT

Order Selecting an Approach for the Long-term Management of Nuclear Fuel Waste

P.C. 2007-834 May 31, 2007

Her Excellency the Governor General in Council, on the recommendation of the Minister of Natural Resources, pursuant to section 15 of the *Nuclear Fuel Waste Act*[a], hereby selects the Adaptive Phased Management approach for the long-term management of nuclear fuel waste from among the approaches set out in the November 2005 Final Study by the Nuclear Waste Management Organization entitled "Choosing a Way Forward", that was submitted to the Minister of Natural Resources on November 3, 2005, in accordance with subsection 12(1) of that Act.

EXPLANATORY NOTE

(*This note is not part of the Order.*)

The Order provides for the selection of the Adaptive Phased Management (APM) approach as the approach for the long-term management of nuclear fuel waste from among the approaches set out in the November 2005 final study by the Nuclear Waste Management Organization entitled "Choosing a Way Forward", that was submitted to the Minister of Natural Resources on November 3, 2005, in accordance with subsection 12(1) of the *Nuclear Fuel Waste Act*.

The APM approach, which was the approach recommended by the Nuclear Waste Management Organization in the study, consists of three phases: the first maintains the waste at the reactor sites while preparing for centralization; the second involves an optional interim step of central storage; and the third ensures long-term containment and monitoring of the waste in a geological repository. The APM approach is also made up of two important components: a management component that will provide opportunities for communities and citizens to participate throughout the site selection process and a technical component to make sure that the best scientific and technical knowledge will be applied for the long-term management of nuclear fuel waste. The APM approach provides sufficient flexibility for waste owners to exercise prudence in view of social and technical uncertainties over the long-term, and enables this generation to put measures in place to safeguard the public in a way that is sustainable, ethically and socially acceptable and respectful to the environment now and in the future.

Enregistrement
TR/2007-63 Le 27 juin 2007

LOI SUR LES DÉCHETS DE COMBUSTIBLE NUCLÉAIRE

Décret choisissant la méthode pour la gestion à long terme des déchets de combustible nucléaire

C.P. 2007-834 Le 31 mai 2007

Sur recommandation du ministre des Ressources naturelles et en vertu de l'article 15 de la *Loi sur les déchets de combustible nucléaire*[a], Son Excellence la Gouverneure générale en conseil choisit la méthode de gestion adaptative progressive pour la gestion à long terme des déchets de combustible nucléaire, parmi les propositions présentées dans l'exposé final de novembre 2005 de la Société de gestion des déchets nucléaires intitulé « Choisir une voie pour l'avenir », qui a été remis au ministre des Ressources naturelles le 3 novembre 2005, conformément au paragraphe 12(1) de cette loi.

NOTE EXPLICATIVE

(*La présente note ne fait pas partie du Décret.*)

Le Décret prévoit le choix de la méthode de gestion adaptative progressive (GAP) pour la gestion à long terme des déchets de combustible nucléaire, parmi les propositions présentées dans l'exposé final de novembre 2005 de la Société de gestion des déchets nucléaires intitulé « Choisir une voie pour l'avenir », qui a été remis au ministre des Ressources naturelles le 3 novembre 2005, conformément au paragraphe 12(1) de la *Loi sur les déchets de combustible nucléaire*.

La méthode GAP, qui a été recommandée par la Société de gestion des déchets nucléaires dans l'exposé, comprend trois phases : la première vise à conserver les déchets à l'emplacement des réacteurs nucléaires pendant que l'on se prépare pour la centralisation; la deuxième est en fait une étape intérimaire facultative d'entreposage centralisé; la troisième vise à assurer le confinement et le suivi à long terme des déchets entreposés dans un dépôt situé dans une formation géologique. La méthode GAP comporte également deux volets importants : un volet de gestion qui permettra aux collectivités et aux citoyens de participer à l'ensemble du processus de sélection du site et un volet technique qui garantira que les meilleures connaissances scientifiques et techniques seront appliquées pour la gestion à long terme des déchets de combustible nucléaire. La méthode GAP offre suffisamment de souplesse pour permettre aux propriétaires de déchets d'exercer toute la prudence nécessaire eu égard aux incertitudes sociales et techniques à long terme et donne à la présente génération la possibilité de mettre en place des mesures qui protégeront le public d'une manière durable, moralement et socialement acceptable, et respectueuse de l'environnement, présentement et dans l'avenir.