

Understanding the Choices – The Future Management of Canada’s Used Nuclear Fuel.

NWMO Discussion Session Final Summary Report

**October 7, 2004
The Holiday Inn Select Halifax Centre
Halifax, NS**

1.0 PARTICIPANTS

There were two participants at the discussion session.

The NWMO representative was Pat Patton, the assessment team member was Michael Ben-Eli and Amanda Kennedy and Sarita Swamy were present from DPRA Canada.

The following is a summary of comments from the Halifax Discussion Session.

2.0 MANAGEMENT APPROACHES

What are the strengths and limitations of each Management Approach?

2.1 Storage at Reactor Sites

2.1.1 Strengths

One participant felt that reactor sites are inherently stable, and therefore those sites may offer advantages for the storage of used nuclear fuel.

2.1.2 Limitations

Participants at the discussion session suggested the following limitations:

- The comparative risks need to be examined. The relative magnitude of risk was thought to be difficult to convey to the public.
- Storage at reactor sites could be viewed as “not making a decision”. It was thought that this method could be adaptable, but would probably not meet the other objectives.
- Terrorism was a concern for participants and reactor sites may not have the security required to prevent access to the site.
- A question was raised regarding the safety of the level of radiation from waste held in temporary storage.

2.1.3 General Comments

A question was raised as to whether used nuclear fuel could be contained underground at the existing generating facilities.

2.2 *Deep Geological Disposal*

2.2.1 Strengths

Participants noted that with deep geological disposal, there would be no need to worry about trust funds for 10,000 years.

2.2.2 Limitations

There were no limitations suggested by participants at the discussion session.

2.2.3 General Comments

- A comment was made suggesting that once you have a repository in place, there is no going back. While during that time monitoring can still occur, there is a limit to flexibility.
- The comment that “Oversight not required” in the description of the option sounded too final for one of the participants.
- The question “how do you measure when it will be safe to walk away?” was raised by a participant.
- The limitations outlined in the discussion document should not drive the decision. The limitations were viewed as hypothetical and should not outweigh performance design.

2.2.4 *Centralized Storage*

2.3.1 Strengths

There were no general comments on the strengths of centralized storage.

2.3.2 Limitations

- One participant suggested that the main challenge is overcoming the ‘NIMBY’ (Not In My BackYard) syndrome. However, it was thought that it might not be as much of an issue in the remote area of the Canadian Shield, but transporting the used nuclear fuel through communities might be a concern to area residents.

2.3.3 General Comments

- A remark was made about the need to sell the mayors of communities on the benefits of centralized storage and educate them on the portion of revenue they might receive.

3.0 ASSESSMENT FRAMEWORK

Is the assessment framework comprehensive and balanced? Are there gaps, and if so, what do we need to add?

General comments about the framework included the following:

- A question was raised as to what the public needs to do to satisfy the NWMO.

- A participant suggested the need for a clear understanding and explanation of the meaning of 'values' and 'objectives'. For example, 'security' versus 'adaptability'. The participant wanted clarification that it was not just a technical analysis.
- A remark made was that public discussion occurring around the world is creating uncertainty and is holding governments back from making decisions. The 'what-ifs' for government were perceived to paralyze decision-makers. Meanwhile, a decision needs to be made to store Canada's used nuclear fuel. One participant emphasized the importance of making a decision and then moving forward.
- It was felt that responsibility and inclusion on the part of the public is important. The public needs to understand their role and the time frame of the process.
- On the issue of adaptability, one participant questioned whether used nuclear fuel is adaptable if it's underground.
- One participant remarked that the ten questions from the first discussion document are almost like a wish list. However, in order to assess the options, the participant stated the need for criteria and felt the objectives made sense.
- One participant felt that from an engineering standpoint, the process was backwards, and asked what is everyone going to accept? The participant thought that the technical aspects should be considered first.

4.0 IMPLEMENTATION PLAN

**Are there specific elements that you feel must be built into an implementation plan?
What are your thoughts on what a phased approach must include?**

General comments about the implementation plan included the following:

- The question of how to relate the complexity of the issue to politicians was raised by a participant. It was felt that there is a need to connect with government departments, and ensure that long-term interests, a regulatory framework and institutions are in place over a long period of time to ensure that the management framework chosen will be maintained. A participant made the point that the regulatory framework must help rather than hinder the making of decisions.
- A comment was raised that if there is a need to protect used nuclear waste, monitor it, and set up a trust fund, the fund will require maintenance over a long period of time.
- Participants expressed that there needs to be public understanding of the technical aspects of the process and a certainty that the chosen methods are technically sound. This will require a group that is dedicated to informing the public, but the public also needs to inform themselves. However, it was recognized that keeping people informed and having a transparent process does not mean that all people's opinions will be accommodated.
- There was recognition that the process requires continuity and continual knowledge transfer.
- There was a suggestion to monitor what other countries are doing with their used nuclear fuel.

5.0 Additional Comments on Discussion Document 2

There was a discussion on who the experts are in this process and who are the participants who were referred to in DD2.

6.0 Other Comments

The following are other comments provided by the participants at the discussion session:

- A question was raised as to whether a combination of one or more methods could be implemented.
- Participants asked at what point will the nuclear fuel that is stored in interim storage reach a critical mass?
- Participants were interested in the work conducted internationally in nuclear waste management. One participant thought that France was technically far advanced and asked whether France's approach would be examined.
- On the issue of transportation of used nuclear fuel, one participant felt that the general public does not have accurate information.

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