

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

NWMO Information Session

Final Summary Report

Monday, November 8 and Tuesday, November 9, 2004
Delta Prince Edward Hotel
Charlottetown, PEI

1.0 PARTICIPANTS

Two information sessions were held in Charlottetown over two days; there were five participants at the sessions.

The NWMO representative was Pat Patton and the assessment team member was John Neate. Laurie Bruce and Subashna Moktan were present from DPRA Canada.

The following is a summary of the comments from the Charlottetown information sessions.

2.0 MANAGEMENT APPROACHES

What are the Strengths and Limitations of each Management Approach?

2.1 Storage at Reactor Sites

2.1.1 Strengths

There were no comments made regarding the strengths of storage at reactor sites.

2.1.2 Limitations

There was concern that nuclear waste stored at reactor sites might be a target for terrorism. Participants asked about contingency plans in case terrorists target a storage site and they asked what the impact would be on the population and surrounding area if a site were hit. There was concern that the storage site could potentially “blow up” if hit by terrorists. It was suggested that the public may view the site as a “nuclear bomb”.

2.1.3 Other comments on storage at reactor sites

A participant felt that the nuclear wastes should stay where they are produced. If a problem develops, we know where to find it and can deal with it. After evaluating the information

presented and after discussion, the same participant concluded that deep geological disposal would be the best option.

2.2 Deep Geological Disposal

2.2.1 Strengths

- A participant felt that that this option was less of a security threat in terms of terrorism than other options.
- A participant felt that the ability to retrieve waste was not an issue with deep geological disposal because they felt that a shaft could easily be drilled beside the storage site and could be brought to the surface.
- It was felt that deep geological disposal was more secure than above ground storage. There was preference for nuclear waste to be stored below ground.

2.2.2 Limitations

- There was a concern expressed that if nuclear waste is stored underground it might be “out of sight, out of mind”.
- Another concern raised was the potential for penetration of the water table and contamination of ground water.

2.2.3 Other comments on deep geological disposal

- A participant asked how high the nuclear fuel bundles would be stacked.
- One participant felt that the more they thought about it, the more they felt that deep geological disposal was the best option.
- A participant asked how monitoring would be carried out.
- There was concern that future governments might sell storage space to other countries.
- In regard to deep geological disposal, a participant felt uncomfortable with the notion of “out of sight, out of mind” and leaned more towards centralized storage.

2.3 Centralized Storage

2.3.1 Strengths

There were no comments made regarding the strength of centralized storage.

2.3.2 Limitations

There were no comments made regarding the limitations of deep geologic disposal.

2.3.3 Other comments on centralized storage

There were no other comments made on centralized storage.

Other comments on Management Approaches

Participants made the following comments about management approaches, in general:

- A participant felt that these options were good approaches, as long as a large amount of money is received from generating companies if and when they close.

- Participants felt that it would be necessary to have a combination of the three options for optimal nuclear waste management.

3.0 ASSESSMENT FRAMEWORK

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

- A participant stated that they could not see anything wrong with the way NWMO is proceeding with the assessment framework. The participant stated, “I think you’re going about it in a wonderful way”.
- A participant expressed that although the NWMO is stating that nuclear waste needs to be stored, the majority of the public just wants to know how and when the waste will be stored.

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?

- A participant asked what the chances were that Canada would have a safety or security problem with the stored nuclear waste. When given the response by NWMO, the participant stated that safety checks should be in place to prevent or lessen the chances of problems occurring.
- A participant asked who would be put in charge of looking after or managing the waste, since companies will not last 300 years.
- It was stated that historically, in waste management, private companies “walk away” from the responsibility of managing the waste and the government and the public are left “picking up the mess”. There was concern that the public may have to support, or bare the financial burden, of managing a waste site due to private companies “walking away from the facility”. Participants wondered who would be responsible for the storage site and stored nuclear waste.
- Participants felt that there should be a segregated trust fund set aside for managing the storage facility.
- It was felt that countries should share nuclear waste management and storage technology.

5.0 Additional Comments on Discussion Document 2

With respect to the document, “Understanding the Choices”, the following comments were made:

- It was felt that whichever option is chosen, future generations will be involved and their needs should be considered.
- It was also felt that the economic factor was a significant concern and participants questioned which of the three options was the most economical.
- When discussing the importance and value of having a reversible storage process (i.e., so that the nuclear waste can be retrieved in the future if necessary), a participant questioned whether a use could be found for the used fuel and whether it would be worth retrieving.

6.0 Other Comments

Other comments that were received by participants at the information session in Charlottetown which were not directly related to Discussion Document 2, have been grouped under thematic headings and are summarized below.

Nuclear Risk and Transportation

- There was concern with potential risk to human health.
- In regard to dry storage containers, participants were concerned whether or not the nuclear fuel bundles would have harmful reactions as they deteriorate.
- Participants were concerned about the safe management of nuclear waste. For example, it was asked, “If one of those bundles dropped off during transportation, what would happen?” and “What would happen if you picked it up?”. Participants asked about the consequences of a fuel bundle accidentally being spilled in the middle of Charlottetown.
- A participant wanted to know how close a nuclear station in Canada has come to a “meltdown”.
- A participant stated that it seemed that more people were afraid of nuclear waste than carbon monoxide and black lungs from coal mines. It was concluded that much of the fear was based on perceived risks rather than facts.
- Participants asked about possible risks in regard to transportation (e.g., if a truck overturned in a downtown area).
- The participant felt that once the public understands the solutions, people will feel better about having a nuclear waste site in their area. The participant stated that the people need to understand the risks involved.

Nuclear Energy and other Energy Sources

- The option of reprocessing and transmutation was raised. Questions were asked regarding the method that could be used to reprocess used nuclear fuel and for transmutation. In addition, it was asked what the end product would be if used nuclear fuel was reprocessed.
- In response to general public views on nuclear energy and waste, a participant stated that “everyone seems to be on a renewable energy kick” and that while windmills and other renewable sources can be used to generate some energy they may not be a permanent solution to Canada’s energy needs.

International

- An issue was raised in regard to the reputation of the CANDU Reactor. There was concern that countries buying the CANDU reactor may not be held responsible for the nuclear waste produced in their country.
- Participants asked what the U.S. is doing with nuclear waste storage/disposal.

Regional Issues

- A participant felt that Prince Edward Island is a nuclear province since it receives 30 megawatts of power generated at Point Lepreau.
- A participant felt that the reactor at Pt Lepreau should be refurbished.
- A participant asked what it would mean to a community to host a used nuclear fuel storage facility.

The NWMO

- A participant commented that they felt much “happier” after talking with the NWMO team and felt comfort in the fact that NWMO is mandated by the government, but is an independent organization.

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