

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

NWMO Discussion Sessions Summary Report*

**September 30, 2004
Comfort Inn & Suites
Edmonton, AB**

* Due to participants' requests, two discussion sessions were held on September 30, 2004. This report summarizes the comments and questions heard during the two discussion sessions.

1.0 PARTICIPANTS

There were 6 (six) participants at the discussion sessions.

The NWMO representative was Pat Patton, and the assessment team member was Jo-Ann Facella. Peter Homenuck and Sergey Tkachev were present from DPRA Canada.

The following is a summary of comments from the Edmonton discussion 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

Participants at the discussion sessions suggested the following strengths:

- There would be no need for transportation of the used fuel.
- There is already an established management structure at reactor sites with knowledgeable and competent scientific and security teams.
- Some participants felt that due to the fact that most reactors were built very close to major water bodies, managing a used fuel facility will do so with more scrutiny by the community in order to provide greater security and prevent water contamination from potential accidents at the storage site.

2.1.2 Limitations

Participants at the discussion sessions suggested the following limitations:

- This is a temporary and therefore costly solution, which requires close monitoring.
- Some participants thought that the storage at existing sites might not be the best option because these sites were never intended or sited to be used for the long-term storage of used nuclear fuel.
- Participants agreed that this option requires multiple locations and therefore the potential exists for oversight and poor management of the reactor sites.

2.2 Deep Geological Disposal

2.2.1 Strengths

Participants at the discussion sessions suggested the following strengths:

- Some participants felt that this is the only solution that is final and that there is no need for constant monitoring making this option safer and less expensive.

2.2.2 Limitations

Participants at the discussion sessions suggested the following limitations:

- This option eliminates the possibility of retrieval of the waste for transmutation and/or reprocessing in the future.
- Participants are concerned that the means to prove the success of deep geological disposal, in the distant future, are currently unavailable.

2.3 Centralized Storage

2.3.1 Strengths

Participants at the discussion sessions suggested the following strengths:

- This option will give Canada “carbon credits” (in accordance with the Kyoto Protocol).

2.3.2 Limitations

Participants at the discussion sessions suggested the following limitations:

- High liability cost will be a problem.

Other comments

- One participant commented that he had come to the session thinking that deep geological disposal would be the best option however at the end of the session he commented that he wasn't sure as selecting a technical method is a difficult decision.
- Another participant also commented that he felt that the advantages and limitations of each option were captured well in the document.

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 asked what is meant by justice and adaptability because these terms do not mean the same thing to everybody i.e. one person's justice is not another person's justice.
- Another participant felt that at first glance sustainability and environmental liability were not included in the assessment framework. This could be defined more clearly.
- It was also suggested that political considerations associated with all three methods be provided in the final document.
- A participant commented on the lack of discussion about the importance of citizen values. He recommended weighing the importance of these values. He asked how the importance of citizens values had been determined? He suggested it was important to determine which values were more important than others. He asked who would make this ultimate decision.

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?

- The comment was made regarding the possibility that the final solution may involve more than one method, particularly on a regional level. It was noted that a technological transfer may not be possible on a national level.
- It was mentioned that the general public should be more educated about the transportation of the used nuclear fuel, liabilities of different storage and disposal methods, and the political issues associated with them.
- Participants agreed that no matter which disposal/storage method will be selected, public safety should not be compromised. Concerns were raised about letting volunteer and perhaps inexperienced nuclear waste management communities deal with this issue.
- One participant expressed doubt about allowing the government to control the management of used nuclear fuel. He suggested that private companies driven by competition might do this job better.
- It was also suggested that the regulatory framework must be clear and that another set of regulations under which the NWMO or a similar body would operate are not needed. The participant felt that the laws must not get more complicated and, therefore, difficult to implement.

5.0 Additional Comments on Discussion Document 2

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

- It was recommended to NWMO to select the preferred storage/disposal method, and then engage the general public in dialogue.
- Reference was made to a waste-siting exercise in Alberta in which citizens concerns were not addressed and that decision makers do not always seem to take into account the comments of citizens. It is important to consider the views of the communities surrounding any host site.

6.0 Other Comments

Other comments that were received by participants at the discussion session in Edmonton are summarized below.

- A participant stated that he wants to be sure that nuclear energy is safe. He has heard about so many cover-ups of accidents. In particular there was concern expressed about the linkage of used nuclear fuel to nuclear weapons production and that decisions made in the United States affect Canada. Canadian sovereignty is threatened. How can he be sure that people are protected from possible cover-ups? How can the government be trusted? The nuclear industry has to be diligent.
- Participants enquired about the applicability of other waste disposal methods like rock injection and shooting waste into space.
- Participants asked about the possibility of transporting nuclear waste to less populated arctic areas or the possibility of shipping nuclear waste to a US facility.
- A participant suggested that used nuclear fuel could be stored deep underground in the caverns that have been created while extracting oil and gas.

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