

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

NWMO Discussion Session

Final Summary Report

Wednesday December 8, 2004

**Discovery Lodge
Iqaluit, Nunavut**

1.0 PARTICIPANTS

There were two participants at the discussion session in Iqaluit.

The NWMO representatives were Mike Krizanc and Ron Doering. Christel von Engelbrechten and Subashna Moktan were present from DPRA Canada.

The following is a summary of the comments from the discussion session in Iqaluit.

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

2.1.3 Other Comments on Storage at Reactor Sites

- A participant asked whether leakage of nuclear waste would be more damaging in water or on land. A participant stated, “I remember a few years ago when a ship transporting radioactive fuel sank. The cargo broke lose, sank to the bottom and started leaking. The material wasn’t properly contained”.

2.2 Deep Geological Disposal

2.2.1 Strengths

No comments were made regarding the strengths of deep geological disposal.

2.2.2 Limitations

- It is easy to forget about the nuclear waste when it is stored underground.

2.2.3 Other Comments on Deep Geological Disposal

- A participant asked what would happen if and when the storage space underground runs out.
- There was concern that too much waste would be stored underground.
- One participant asked, “Will they keep digging more and more holes?”
- In response to the concern that the performance of this type of storage method has not been tested, it was asked if there is a way for tests to be carried out in a controlled environment.
- There was concern that the fuel bundles stored underground may be forgotten if and when nuclear power is no longer used.
- There was concern over the possibility of what might happen if people in the future discover the nuclear waste by accident (e.g., while excavating). There was concern that people in the future may not be aware of the waste stored underground and that they may get hurt if they discover it.

2.3 Centralized Storage

2.3.1 Strengths

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

2.3.2 Limitations

- Potential target for terrorists.

2.3.3 Other Comments on Centralized Storage

- One participant commented, “I wonder why we even deal with such dangerous technology. We know that it’s dangerous to the environment and it could be a target for terrorists”.

3.0 ASSESSMENT FRAMEWORK

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

- In regard to monitoring deep geological disposal, it was asked if a robot could be used to transport a camera down to the storage units to check for any abnormal activity. It was felt that the advantage of using a robot would be that the person conducting the monitoring would not be directly impacted in the event that the environment in the

storage units is unsafe. It was suggested that technology for monitoring the storage chambers be installed before backfilling is carried out.

- A participant asked how fuel bundles are currently monitored.
- There was a discussion on the various types of technology that could be developed to handle nuclear waste.
- There was a question in regard to the contingency plan in the event that there is a fire at one of the facilities or in one of the storage chambers.
- There was concern as to the potential types of accidents that could occur at the nuclear waste storage facilities. The potential impact if there is an accident at a storage facility located near a large city was discussed.

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?

No comments were provided.

5.0 Additional Comments on Discussion Document 2

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

No comments were provided.

6.0 Other Comments

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

- There was a question in regard to the clean up process if an accident or spill occurred.
- A participant asked what the consequences would be if nuclear waste leaked into the environment. A participant stated that they were involved in the clean up of asbestos, which took a long time.
- A participant felt that the information provided at the sessions was important to hunters.
- A suggestion was made to use other, less dangerous, sources of energy, such as, wind power. It was felt that although there are impacts and changes with water based power sources, the risk is significantly less than those associated with nuclear waste.
- It was felt that more input from the locals is required in order to determine the long-term effects of storing nuclear waste in an area.
- A participant asked whether water dilutes nuclear waste or just contains it in the water.
- A participant commented, “It is human nature to be careless sometimes, especially when we become over confident about something”.

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