

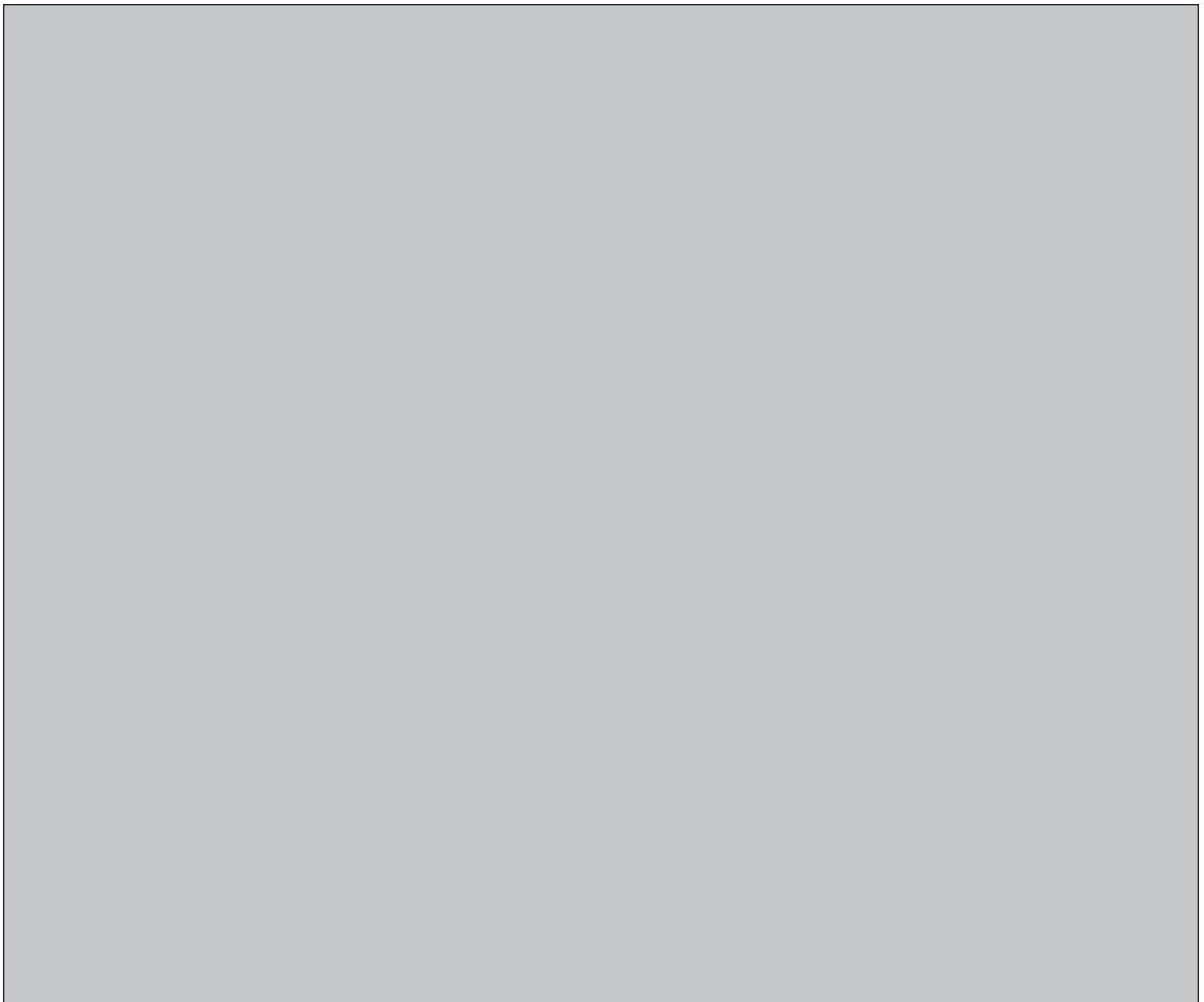
NWMO BACKGROUND PAPERS

8. WORKSHOP REPORTS

8-1 DEVELOPMENT OF THE ENVIRONMENTAL COMPONENT OF THE NWMO ANALYTICAL FRAMEWORK

EXECUTIVE SUMMARY

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Environment Workshop

A one-day workshop was convened in Ottawa in September 2003 to discuss the environmental aspects of nuclear fuel waste management. Eleven experts participated, drawn from business and industry, academia, government, and the non-government sector - all with recognized senior level experience in decision-making on environmental issues. Workshop participants were asked to provide advice on two areas:

The general environmental parameters that govern decision-making; and
The key environmental questions that needs to be answered respecting the management of spent nuclear fuel.

The discussion during the workshop and the suggestions that emerged focused on three themes:

- Science for decision-making.
- Environmental assessment.
- Governance.

Science for Decision Making - Science for decision-making. Environmental science is needed to calculate and compare the risks associated with different approaches to managing waste nuclear fuel. Monitoring systems should provide information to measure environmental effects and technology performance. This information is of broad interest and provides feedback for adaptive management. Imaginative approaches to public engagement will allow for improved understanding of the science and its significance

Environmental Assessment - The formal environmental assessment process should not be the only means of communication when a specific proposal is before the public. Complementary processes and institutions should be mobilized. Results should be provided to the formal process to inform its deliberations and to demonstrate at the earliest stage the capacity for adaptive management on this issue.

Governance - Effective systems of governance, now and in the future, require transparency, lack of bias, accessibility, competence and public accountability. Environmental considerations are and will continue to be integrated into the decision making of many institutions on the grounds of efficiency and effectiveness. New institutions may be required to increase trustworthiness and/or for new functions.

Key Questions - In reviewing and assessing possible approaches for the management of spent nuclear fuel, the following key environmental questions should be considered.

1. Does the proposed approach adequately consider the cumulative effects on the resources of the ecosphere (atmospheric and terrestrial, biodiversity and fresh water quality, water bodies and shorelines)?
2. Does the proposed approach adequately consider the effects on ecological processes such as, atmospheric transportation of pollutants; carbon and nitrogen cycles; wetlands productivity; preservation of endangered species?
3. Does the proposed approach adequately predict the effects on the health of people and other living things in both the short and long term?
4. Does the proposed approach adequately consider the ecological effects of potential catastrophic failure of containment systems, including those used in transportation, and have adequate contingency measures been defined?
5. Does the proposed approach adequately describe the ecological effects of the long-term residual impacts that may occur?
6. Does the proposed approach adequately take into account the effects of imposed environmental change through forces such as climate change, ozone depletion, glaciation, etc.?
7. Does the proposed approach adequately engage the public in terms of their perception of ecological risk for present and future generations?
8. Does the proposed approach adequately define an appropriate monitoring and reporting system to ensure effective public involvement and transparent decision-making?
9. Does the proposed approach give due consideration to the environmental roles and responsibilities of current, and possible new institutions, to ensure long-term ecological integrity?