

Quick Look Report

Travel Dates: November 28 - 30, 2006

Location: Paris, France

Organization/Committee:

Organization for Economic Cooperation and Development (OECD)/Nuclear Energy Agency (NEA)/Radioactive Waste Management Committee (RWMC) Workshop on Long-Term Safety Criteria, "Regulating for the Long-Term Safety of Geologic Disposal of Radioactive Waste: Practical Issues and Challenges."

Desired Outcome:

Represent the U.S. and the NRC as a member of the Working Group on Long-term Safety Criteria, to deliberate on issues of intergenerational equity and regulatory responsibilities for setting health and safety criteria for the far future.

Results Achieved:

The desired results were achieved. The workshop, along with ancillary discussions during breaks, strengthened existing networks for sharing experiences, especially with respect to formulating and implementing regulatory criteria for long-term safety. A formal report supporting the Workshop, and reflecting the work of the LTSC working group, will be issued in the coming year.

Summary of Trip:

Between November 28 and November 30, I participated in an international workshop sponsored by the Regulator's Forum of the RWMC and the Working Group on Long-term Safety Criteria (LTSC), in Paris, France. The Regulator's Forum set up this working group to review and compare the long-term protection criteria for long-lived radioactive waste in various countries. The workshop, "Regulating for the Long-Term Safety of Geologic Disposal of Radioactive Waste: Practical Issues and Challenges," welcomed the participation of representatives from eleven countries, Belgium, Canada, Finland, France, Germany, Japan, South Korea, Spain, Sweden, Switzerland, the United Kingdom, and the United States. Workshop participants included a broad range of regulators, implementers, ethicists, and policy makers. In addition to NRC's representative, who also serves as the Chairman of the NEA Forum on Stakeholder Confidence, the U.S. was represented by staff the Department of Energy. The U.S. Environmental Protection Agency canceled its scheduled presentation on the status of revisions to the EPA standards for Yucca Mountain, and was unable to send a representative.

It has been recognized for many years that differences in criteria among different countries present an additional obstacle to broad public acceptance of repository proposals. The RWMC has been examining the bases for these differences for some time, in particular through the work of the Integrated Group on the Safety Case (IGSC) and of the Regulator's Forum LTSC working group. This work has identified a number of factors which contribute to the differences among safety criteria: among them the complexity and non-uniformity of the regulatory decision-making processes in member states; lack of consensus on how to characterize and

measure protection in the distant future; and fundamental ethical issues related to the nature of society's obligations to future generations. The RWMC sponsored this workshop, in order to foster a better common understanding of how these differences arise.

The first half-day was devoted to an introductory session, wherein prior work of the RWMC was summarized, issues from the 1997 NEA Cordoba Workshop were reviewed, and relevant findings from the Time scales Initiative of the IGSC were discussed. HLWRS staff served as chair of the workshop's main session entitled, "The Challenge for Regulatory Policy and Decision Making." This session included multiple presentations by sociologists, a member of the RWMC, ethicists, and by implementers, describing the expectations from society, international nuclear safety organizations, the ethics community, and repository developers, respectively. A discussion followed, centered around three main themes: (1) Do we have a shared understanding of what the risk is from disposal in the long and very long term? [In general, technical participants thought "yes," but all workshop participants acknowledged major challenges in communicating risks and objectives of criteria for long-term safety]; (2) How do we deal with the ethical question as to the level of protection that may be aimed for as a function of time? [General agreement that a distinction must be drawn, and communicated, between ethical obligations and an institution's or society's ability to fulfill or transfer those obligations] ; and 3) Cut-offs in time: how and if to choose any? [no agreement here].

Next Steps:

A discussion paper, based on earlier findings of the Regulator's Forum Long-term Safety Criteria working group and discussions within the RWMC, was prepared (and revised several times) in advance of the workshop. The current version reflects most of NRC's suggested revisions, and represents a considerable improvement over previous drafts. It was agreed that this paper will be updated to reflect the findings of the workshop, and will be presented to the RWMC Regulator's Forum in March, 2007. Proceedings of the Workshop will be published separately, by mid-2007.

Policy Issues:

No new policy issues for NRC were identified. No formal trip report will be prepared.

Contact Information:

Janet P. Kotra
Division of High-Level Waste Repository Safety
Office of Nuclear Materials Safety and Safeguards