UNITED STATES
NUCLEAR WASTE TECHNICAL REVIEW BOARD
2300 Clarendon Boulevard, Suite 1300
Arlington, VA 22201

AGENDA
Wednesday, September 23, 2009

Gaylord Hotel
201 Waterfront Street
National Harbor, Maryland 20745
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8:00 a.m. **Call to Order and Introductory Statement**
B. John Garrick
Chairman, U. S. Nuclear Waste Technical Review Board

8:15 a.m. **Program and Project Overview**
Christopher Kouts
Acting Director, Office of Civilian Radioactive Waste Management
Department of Energy

8:30 a.m. *Questions and Discussion*

8:45 a.m. **MIT Interdisciplinary Study on the Future of the Nuclear Fuel Cycle**
Ernest Moniz
Professor of Physics and Engineering Systems
Massachusetts Institute of Technology

9:15 a.m. *Questions and Discussion*

9:50 a.m. **BREAK**

Proposals for Closing the Nuclear Fuel Cycle (Panel)

10:00 a.m. **AREVA**
Dorothy Davidson
Vice President, Strategic Programs

10:25 a.m. *Questions and Discussion*

10:45 a.m. **EnergySolutions**
Alan Dobson
Senior Vice President, Fuel Cycle and Spent Fuel Management

11:10 a.m. *Questions and Discussion*

11:30 a.m. **GE-Hitachi**
Eric Loewen
Chief Consulting Engineer, Advanced Plants Technology

11:55 a.m. *Questions and Discussion*

Prior to the meeting, the Board provided each of the three vendors represented on this panel with a list of questions to be addressed in the presentations. The questions focused narrowly on the implications for high-level radioactive waste and spent nuclear fuel management of each proposal. Those questions are reproduced below.

1. What is the estimated mass of waste that must be disposed of per MTHM processed in each of the following categories? What is the proposed disposition or management path for each type?

a. Vitrified high-level waste
b. Low-level waste, including non-recycled uranium
c. Intermediate-level or Greater-than-Class C waste
d. Plant decontamination and decommissioning waste

2. What, if any, are the additional waste management process requirements for recovering and disposing of

a. ^{85}Kr and ^{14}C gases?
b. Separate handling of ^{99}Tc, Cs, and Sr?
c. Separate removal of ^{241}Am and Cm?

How significantly do these requirements affect the size and complexity of the reprocessing facility?

3. What, if any, are the technical constraints limiting the capacity or throughput of the proposed facilities? What factors cause those constraints?

4. What, if any, are the projected improvements in repository performance (radiation dose at the hypothetical site boundary) associated with actinide removal? What, if any, are the projected repository capacity improvements associated with actinide removal? What analyses support answers to these questions?

5. What are the appropriate metrics/measures that might be used to compare alternative technical approaches in terms of their implications for waste management? Why should the metrics be used?

12:15 p.m. LUNCH

1:30 p.m. **Comments on Proposals for Closing the Nuclear Fuel Cycle**

- Mark Peters (Technical challenges)
  Deputy Associate Laboratory Director
  Energy Sciences and Engineering
  Argonne National Laboratory
- Rodney Ewing (Consequences for geologic disposal)
  Professor, Department of Geological Sciences
  University of Michigan
- Adam Levin (Waste management operations at reactors)
  Director, Spent Fuel and Decommissioning
  Exelon Corporation
- Daniel Stout (Regulatory gaps including transportation)
  Manager, Federal Programs and Licensing
  Tennessee Valley Authority

2:15 p.m. *Questions and Discussion*

The Board asked each of these four panelists listed above to focus on a specific topic related to the vendor proposals described in the last session. Those topics are noted in parentheses following the name of each speaker.

3:00 p.m. **BREAK**

3:15 p.m. **Trends in International Radioactive Waste Management Programs**
Claudio Pescatore
Principal Administrator for Radioactive Waste Management and Decommissioning, Nuclear Energy Agency, OECD

3:40 p.m. *Questions and Discussion*

4:00 p.m. **Reflections on the Swedish Site-Selection Process**
Tuija Hilding-Rydevik
Professor
Royal Institute of Technology, Stockholm
Member, Swedish National Council for Nuclear Waste

Copper Corrosion Workshop Sponsored by the Swedish National Council for Nuclear Waste
Willis Forsling
Professor, Inorganic Chemistry
Umeå University
Member, Swedish National Council for Nuclear Waste

4:25 p.m. *Questions and Discussion*

4:45 p.m. **Public Comments**

5:15 p.m. **Adjourn Public Meeting**