



U.S. Nuclear Waste Technical Review Board

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Used Fuel Management - Rethinking the Paradigm: NWTRB Perspectives

Presented to:
INMM Spent Fuel Management Seminar XXVIII

Presented By:
Nigel Mote
Executive Director

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The Nuclear Waste Technical Review Board

- Established by the 1987 amendments to the Nuclear Waste Policy Act to:
 - Evaluate the “technical and scientific validity” of DOE activities related to implementing the NWPA, including
 - Transportation, packaging, and storage of spent nuclear fuel (SNF) and high-level radioactive waste (HLW)
 - Site characterization, design, and development of facilities for disposing of such wastes.
- Required by law to report its findings, conclusions, and recommendations at least twice each year to Congress and the Secretary of Energy.
- Eleven Board members:
 - Technical and scientific experts
 - Nominated by the National Academy of Sciences; appointed by the President
 - Serve on a part-time basis for four-year terms.
- Board documents:
 - Reports, correspondence, meeting transcripts and materials, congressional testimony, etc. can be found at www.nwtrb.gov
 - Basis for Board perspectives on SNF and HLW program



Whatever Management Option is Adopted...

- Take a systems approach to the complete program
 - All SNF and HLW: Commercial and DOE
 - Storage, transportation, handling and any other processing, and disposal
- A deep geologic repository will be needed
 - Develop generic siting criteria
 - Consider different disposal methods for different waste types
 - Determining the source term will support the safety case
- Focus on today's issues
 - Large SNF inventory – and growing
 - Recycle, transmutation and boreholes – OK for tomorrow?
 - Transportation of high-burnup fuel
 - Degradation mechanisms during long term storage
 - Burnup credit
 - Today's issues need R&D priority
- Learn from experience – in the U.S. and other countries

