



U.S. Nuclear Waste Technical Review Board

**NWTRB**  
[www.nwtrb.gov](http://www.nwtrb.gov)

# Overview of Workshop Objectives and Scope

Presented to: **NWTRB Workshop on Evaluation of Waste Streams  
Associated with LWR Fuel Cycle Options**

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**June 6, 2011**

# Workshop Objectives

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- Benchmark fuel cycle models/codes/tools against each other – it is NOT intended as an exercise to identify preferred scenarios.
- Establish consistency in input assumptions for the calculations of spent fuel generation and management in the U.S.
- Understand how the scenario definitions provided by the NWTRB are applied in the calculation of spent fuel characteristics.
- Reach consensus on areas of agreement, differences, and suggestions for future interactions and direction.



# Analysis Scope

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- Limited to light water reactor (LWR) technology
- Sequential analysis phases
  - Characteristics of U.S. spent fuel inventory as of December 2009
  - Spent fuel discharged through 2100
  - Impact of repository disposal
  - Steady state reprocessing and fabrication of PWR MOX and recycled UOX fuel
  - Impact of reprocessing combined with repository disposal



# Workshop Attendees

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- Participants
  - Organizations that have indicated they have tools or codes that allow analysis of workshop scenarios and will present the results of these analysis during the workshop.
- Other Attendees
  - Observers of work presented by Participants, who will be invited to participate in the discussion periods if time allows, and during the public comment periods.



# Review of Agenda

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- *Scenario Definitions and Analysis Phases*
  - Basis for and description of scenarios
  - Expected outcomes from benchmarking
- *Overview of Analysis Tools & Methods*
  - Presentations of analysis methodology
  - Observations, including similarities and differences
- *Analysis Results*
  - Five scenario phases
  - Presentation of results by each Participant
  - Round table discussion - comparison of results
- *Where Do We Go From Here?*
  - Working groups to resolve differences identified in results
  - Plans for further meetings
  - Definition of additional scenarios



# The Workshop is a Public Meeting

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- It is being recorded.
- A transcript will be available on the Board's website ([www.nwtrb.gov](http://www.nwtrb.gov)) in a few weeks.
- All presentations and other documents provided by attendees will be posted to the Board's website.
- Documents and written comments submitted by members of the public will be posted to the Board's website.
- Public input is welcome – during the discussion of results if time allows plus during public comment period at the end of each day.



# About the Board

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- Established under the terms of the 1987 Amendments to the Nuclear Waste Policy Act.
- Congressional mandate to:
  - Conduct an independent and ongoing evaluation of the technical validity of activities undertaken by the Secretary of Energy related to the management of high-level radioactive waste (HLW) and commercial, research & defense-related spent nuclear fuel (SNF).
  - Report its findings to Congress and the Secretary of Energy at least twice per year.
- Eleven Board members:
  - Nominated by the Academy of Science
  - Appointed by the President
  - Serve four year terms



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**Let's get  
started!**

