NUCLEAR WASTE TECHNICAL REVIEW BOARD
FULL BOARD MEETING

SUBJECT: NEW DIRECTIONS IN WASTE
ACCEPTANCE, STORAGE, AND
TRANSPORTATION

PRESENTER: DWIGHT E. SHELOR

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AUSTIN, TEXAS
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Purpose

• Current Situation
• Strategic Objectives
• Transportation Planning
• Interim Storage Planning
• Non-Site Specific Activities
Current Situation

- Administration position
  - Interim storage site will be considered following repository viability assessment

- Congressional actions
  - S-1271 awaiting Senate floor vote
  - HR-1020 awaiting House floor vote
  - FY-1996 appropriations sequestered $85 million for interim storage
OWAST Strategy

- **First Stage (contingency planning)**
  - undertake activities that have potential to expedite start of interim storage

- **Second Stage (if authorized)**
  - procure waste acceptance, storage and transportation equipment and services
  - design and license an interim storage facility (when sited)
Market-Driven Waste Acceptance, Storage, and Transportation Strategy

Nuclear Utilities

Federal Facility

Private Sector

Innovative Solutions

Utility Disposal Contracts

Competitive Service Contracts

Market-Driven Efficiency

Multi-Year Performance-Based Requirements
Transportation Planning

- Objectives
  - Practical and implementable
  - Maximum use of private industry
  - Incentives for innovation
  - Minimize DOE involvement
  - Utility cooperation and participation
  - Performance based contracts
Transportation Planning

• Scope of services
  – Service all Purchasers per the Annual Capacity Report
  – Provide transportation casks and equipment suitable for use at Purchaser’s sites
  – Transport and store SNF according to
    • applicable NRC and DOT regulations
    • standard commercial practices
Transportation Planning

• **Scope of services (continued)**
  
  - Accept spent fuel as agent of DOE
  
  - Provide compatible storage systems for use at the federal facility (if fuel is to be placed in interim storage)
  
  - Perform route selection in coordination with state, Indian tribes, and local governments
  
  - Perform intermodal transport as necessary
Transportation Planning

- Multiple awards
  - First of several procurements over several decades.
  - Multiple awards to competing contractors to establish and sustain viable competition
  - Divide country into regions with one contractor providing services to all utilities in that region.
  - No single offerer awarded more than a fixed maximum number of regions.
• **Contract type**
  - Fixed-price type, performance-based, service contracts.
  - Incentives and flexibility to
    - improve efficiency,
    - solve problems,
    - overcome obstacles
    - provide low cost services.
  - Innovative arrangements will be encouraged.
    - reduce DOE risk
    - lower costs
Transportation Planning

- **Contract term - five to ten years**
  - Several years for preparation of services
    - procurement of transportation and storage equipment
    - achieve operational readiness
    - ISF licensing and construction.
  - **Multi year service period**
    - complete waste acceptance and transportation services.
    - improve efficiency of operations and reduce costs through campaigning of fuel pickups
Transportation Planning

• Expressions of Interest / CBD announcement
  – Public solicitation of Expressions of Interest (EOI)
    • Potential offerors
    • Utilities
  – Obtain comments on the acquisition of waste acceptance and transportation services
  – Pre-solicitation conference
Interim Storage

- Tied to repository viability assessment
- First Stage - non-site specific activities
  - FY-1996 through FY-1998
  - Phased development
- Second Stage - site-specific activities
  - after viability assessment and legislation to designate an interim storage site
Interim Storage

• Phased approach to interim storage
• Phase 1 - canistered SNF only
  – simple facility to enhance ease of licensing
  – simple facility to shorten construction duration
  – based on existing designs
  – consistent with proposed legislation
  – compatible with transportation planning
Interim Storage

- Phased approach to interim storage
  - Phase 2 - uncanistered SNF
    - more complex facility
    - available approximately two years after initial SNF receipt
    - consistent with proposed legislation
    - compatible with transportation planning
    - transition from canistered SNF to uncanistered SNF
Non-Site Specific Activities

• TSAR (Topical Safety Analysis Report)

• Potential Benefits
  – Early issue identification and resolution
  – Increased confidence in licensing schedule
  – Reduce NRC license review duration
  – Shorten duration of environmental data gathering
Non-Site Specific Activities

• Issues to be addressed in TSAR (Phase 1)
  – Long-term dry storage of SNF
  – Seismic requirements
  – Off-Normal recovery
  – Design Basis Accidents

• Issues to be addressed in TSAR (Phase 2)
  – Dry uncanistered fuel assembly handling
Non-Site Specific Activities

• TSAR
  - Follow Reg. Guide 3.48
  - Bounding parameters and environmental parameters
  - Submit TSAR to NRC prior to site identification
  - NRC prepares Safety Evaluation Report (SER)
Integration of Activities

• Waste acceptance and transportation activities are fully integrated with interim storage contingency planning consistent with Administration’s position

• Near-term TSAR activities will position DOE to respond rapidly, if necessary

• Funding allocation keeps emphasis on repository