



U.S. DEPARTMENT OF  
**ENERGY**



# EM Waste Processing Technical Exchange

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***Assistant Secretary  
Environmental Management***

November 16-18, 2010



**EM** *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

[www.em.doe.gov](http://www.em.doe.gov)

# Environmental Management - Mission

***Complete the safe cleanup of the environmental legacy left from five decades of nuclear weapons development, production, and research***



## 20 years of EM progress

- Attracted, trained, and retained a premier nuclear work force
- Expertly and safely managed nuclear waste while protecting health and safety of the local communities
- Improved project management and reduced the EM footprint



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# Role of Science & Technology

**“Science and technology lie at the heart of our mission” –  
DOE Management Principles**

## **S&T has already improved the Tank Waste systems**

- **Improved waste processing and increased glass loading**
  - Decreased life cycle cost and schedules
- **Developed better retrieval equipment and processes**
  - Faster & more thorough tank waste retrievals
- **Invented and demonstrated pretreatment processes**
  - Treatment facilities currently operating
  - Major facility construction underway

**Many of you have made key S&T contributions to make this happen**



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# Journey to Excellence – Role of Science & Technology

## *Journey to Excellence* Goal 2

- Reduce life cycle costs and accelerate cleanup of the Cold War legacy

### Key Strategies

- Use **science and technology** to enhance current clean-up approaches
  - Identify **strategic investments** for enhancing tank waste treatment and disposition
- 
- S&T creates viable options for stakeholders
- 
- Achievable by disciplined execution
    - National Laboratories
    - Contractors
    - Private industry
    - Academia



Courtesy of Idaho National Laboratory



Courtesy of Oak Ridge National Laboratory



Courtesy of Pacific Northwest National Laboratory



Courtesy of Savannah River National Laboratory



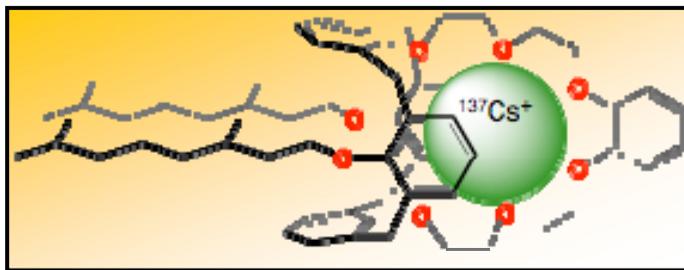
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# DOE-EM Technology Development Program

- **Office of Waste Processing R&D portfolio addresses the most technically challenging improvements**
  - Enhanced Tank Waste Strategy
    - Potential for >\$19B cost savings
  - Targeted investments to accelerate technology development to reach insertions and deployments
    - Alternative treatment options (Fluidized Bed Steam Reforming, Next-generation Solvent development)
    - At-tank processing options (Rotary Microfilter and Small Column Ion Exchange)



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# DOE-EM Success

## ***Cannot be successful without:***

- Strong technical leadership and direction
- Innovation
- Stakeholder buy-in
- Assessments through expert technical and management reviews
  - Technical Expert Group
- You



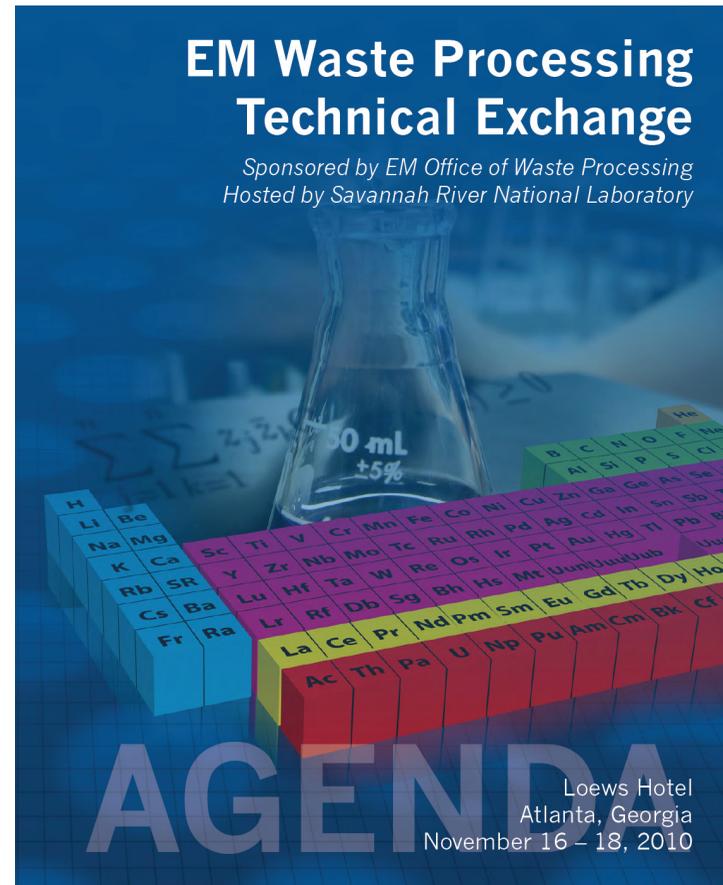
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# Welcome

- Sessions are focused on the highest technical priorities in EM
- Share your thoughts and ideas
- Engage our stakeholders
- Transfer your knowledge



**EM Waste Processing  
Technical Exchange**

*Sponsored by EM Office of Waste Processing  
Hosted by Savannah River National Laboratory*

AGENDA

Loews Hotel  
Atlanta, Georgia  
November 16 - 18, 2010

The banner features a blue background with a 3D periodic table of elements in various colors (blue, pink, yellow, red) and a glass flask labeled '50 mL ±5%' in the center.



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