



U.S. DEPARTMENT OF  
**ENERGY**

OFFICE OF  
ENVIRONMENTAL  
MANAGEMENT

# Integration: Transfer of Lessons Learned Initiatives

**Vijay Jain**

*Chief Technology Officer  
Savannah River Remediation*

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**Savannah River  
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## Objectives for HLW Integration

- Share experience with tank waste storage and treatment facilities
- Jointly develop programs, including technology, for waste storage, retrieval and tank closure
- Accomplish HLW integration through focused meetings, visits, and collaborative execution activities

## Current Examples of Complex-Wide Integration

- People
- Functional Area Coordination Teams (FACT)
- Technology Maturation and Management
- System Planning
- Risk and Opportunity Management
- Tank Integrity Programs
- Waste Retrieval
- Waste Treatment
- Waste Characterization
- Performance Assessments (PA)

*...long history of integration between SRS and Hanford dating back to 1960's*

- Functional Area Coordination Teams (FACTs) established across all URS contract sites for many functions (e.g., ES&H, QA, Ops & Maintenance, Engineering, Contractor Assurance)
  - Networked approach utilizing benchmarking, regular conference calls and site assist actions
  - *Exchange and sharing* of information including procedures, training packages, lessons learned data, technical bases, best practices, and assessments
- Example actions include:
  - Shared safety website for exchange of procedures, training packages, and lessons learned data
  - Workshop to share technical bases for Documented Safety Analyses (DSA) for enhanced efficiency in development and revisions
  - Establishment of complex-wide QA SMEs and development of common supplier list

# Technology Maturation and Management

- Collaborative efforts to ensure integrated and consistent technology maturation and deployment
  - Waste Retrieval and Closure: Tools and Analyses
  - Waste Treatment: Filtration, Small Column Ion Exchange, Solvent Extraction, Vitrification
  - Low-Level Waste Disposition: Alternative Strategies
- Consistent application of the technology maturation processes
- Collaborative effort on DOE-HQ Tank Waste R&D Plan

- Risk Management
  - Exchanged risk registers to help identify risks, and innovative/successful handling strategies
  - Provided training on Risk Management tools developed and piloted by SRR, to other DOE sites through INCOSE, e.g. Pre Mortems, Wild Cards etc.
- Developing a Risk Management Body of Knowledge (BOK)
  - Database updated every three months with input from Hanford and other DOE /URS sites
  - Records with lessons learned, searchable by type, subject, and other technical/ programmatic categories to improve effectiveness of risk identification and mitigation

- Initial Workshop completed
  - Shared approach and lessons learned in preparing and obtaining approval for PAs and maintenance plans
  - Discussed strategy for engagement with the Nuclear Regulatory Commission for consultation and monitoring
  - Discussed lessons learned in obtaining DOE approval of waste determinations and issuance of closure authorization/disposal authorization statements
- Exploring other avenues for collaboration

- On-going integration efforts are resulting in benefits to EM
- Areas of continuing integration efforts include
  - Application of integrated flowsheet operations
  - Streamlining of waste acceptance processes from tank farms, to the Waste Treatment Plant, to waste product acceptance
  - Application of salt/sludge batch preparation experience to Direct Feed Low Activity Waste (DFLAW)
  - At-tank treatment (conditioning) of waste to feed WTP LAW/HAW Vitrification Plants
  - Waste disposition