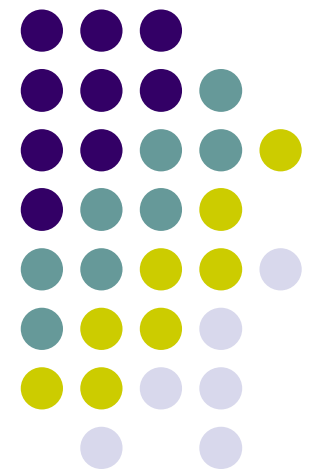


“EFCOG’s Knowledge Portal Review”
2012 Waste Management Symposium
DOE Order 435.1 Revision
Radioactive Waste Management Initiative



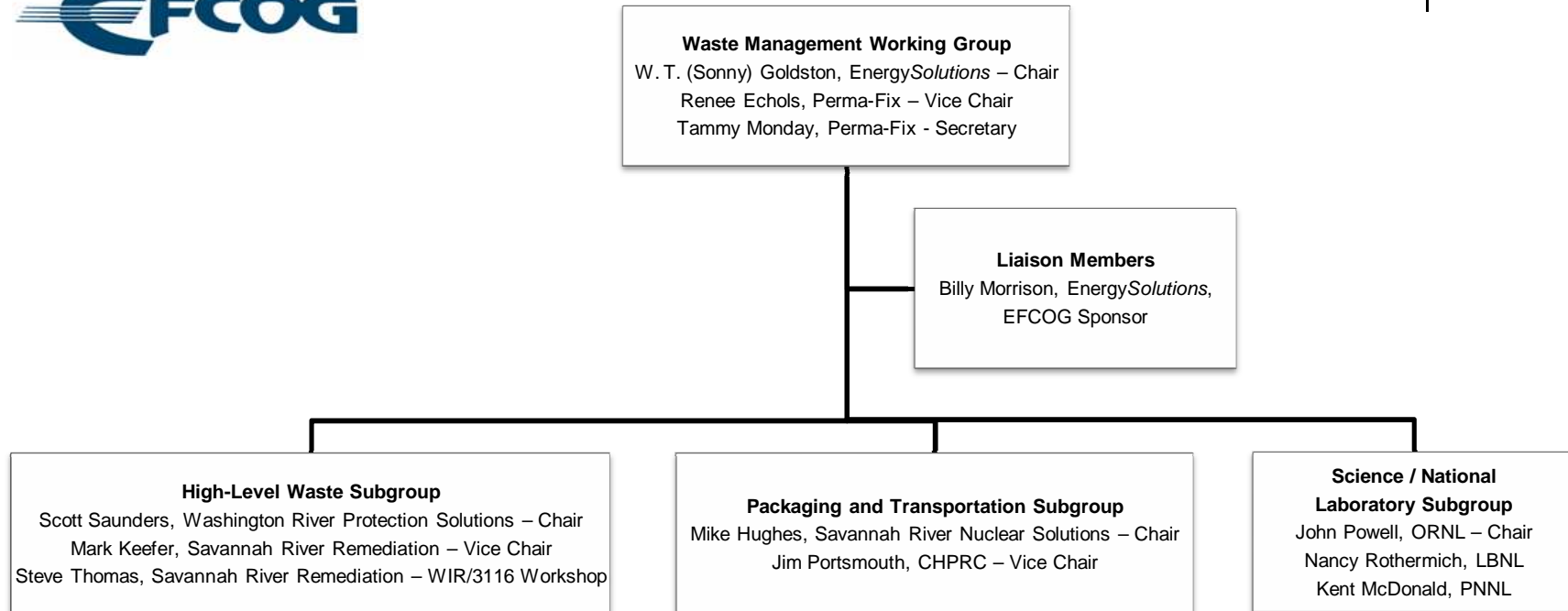
Presented by

Sonny Goldston, Chair
Waste Management Working Group
Panel Session 51
February 28, 2012





Waste Management Working Group



DOE-HQ Waste Management

Working Group Sponsors

Frank Marcinowski, EM-30
Christine Gelles, EM-30
Steve O'Connor, EM-33
Bill Levitan, EM-10
Randy Scott, NNSA
Dave Michlewicz, Science, SC-31

Waste Management Working Group Organization Chart
Effective Date: TBD, (Rev. 2)

Waste Management Working Group



- Leadership in the WMWG is comprised of:
 - Chair: W. T. (Sonny) Goldston *EnergySolutions*
 - Vice-Chair: Renee Echols, Perma-Fix
 - Secretary: Tammy Monday, Perma-Fix
- The WMWG currently has three subgroups with leadership as follows:
 - Packaging and Transportation Subgroup Chair: Mike Hughes, Savannah River Nuclear Solutions Vice-Chair: Jim Portsmouth
 - HLW Subgroup Chair: Scott Saunders, Washington River Protection Solutions; Vice Chair – Mark Keefer, Savannah River Remediation
 - Science/National Laboratory Subgroup Chair: John Powell, Oak Ridge National Laboratory; Vice Chairs – Nancy Rothermich, Lawrence Berkeley National Laboratory and Kent McDonald, PNNL
- EFCOG Sponsoring Director: Billy Morrison, *EnergySolutions*
- DOE Sponsors: Frank Marcinowski, Christine Gelles, Steve O'Connor, Bill Levitan EM; Dave Michlewicz, Office of Science; and Vacant, NNSA



DOE Order 435.1 Revision

DOE is responsible for managing radioactive waste and providing radiological protection from DOE operations pursuant to its Atomic Energy Act (AEA) authority

- Provide overview of current status of DOE Order 435.1 Update Project
- Define next steps

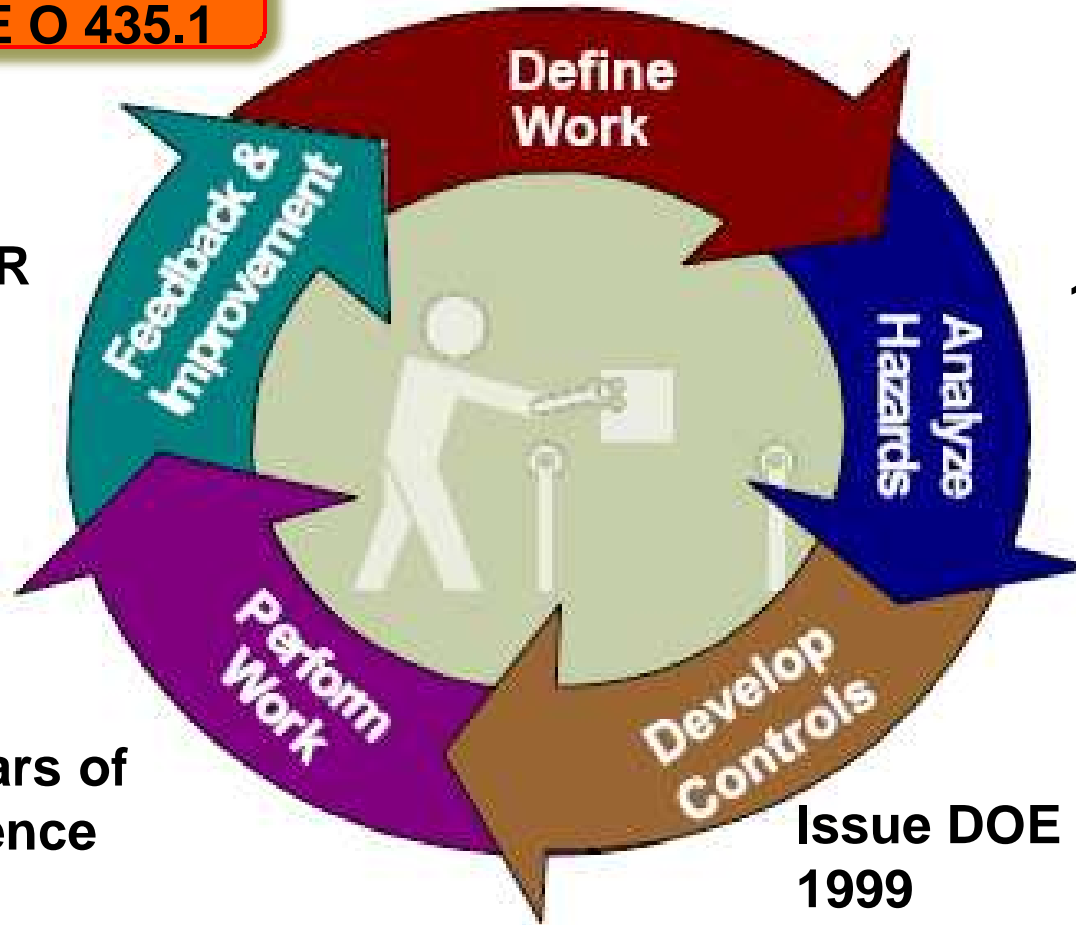
Continuing the ISMS Feedback Loop



DNFSB 94-2

**Update
DOE O 435.1**

2010 CWR



1996 CWR

>10 years of
experience

Issue DOE O435.1
1999

2010 Complex Wide Review



- Conducted by DOE and EFCOG Members
- “Boots-on-the-Ground” at all large DOE sites and Paper Review by most small sites (over 30 sites total)
- All recommendations will be formally addressed
 - Some are areas for improvement (negative)
 - Some are suggestions for positive change (Best Practices) from implementation experience in the field
 - 68 Best Practices
 - 139 Areas for Improvement



DOE Order 251.1C

- Provides format and content requirements for all new and revised Orders – improves consistency
- Specific outline defined
- Updated DOE O 435.1 reorganization will be:
 - Section 4 – Requirements
 - a. General Requirements
 - b. High-level Waste
 - c. Transuranic Waste
 - d. Low-level Waste
 - Section 5 – Responsibilities
 - Attachment 1 - Contractor Requirements Document
 - Attachment 2 - Definitions



General Requirements

- Consolidates duplicate requirements from waste type chapters in current Order (contingency actions, waste generation planning, RWMB, monitoring, etc.)
- Clarify Site-wide and Complex-wide Planning
- Strengthen Radioactive Waste Management Basis (RWMB)
- Pre-generation planning (e.g., waste with no path to disposal)
- Generation (characterization for meeting TS WAC and/or packaging for transportation, blending/consolidation for safety and future disposal, data management, classified materials)
- Treatment
- Storage
- Disposal (WAC, non-DOE radioactive wastes (ownership), Section 3116 – High-level Waste)

General Requirements



- Unreviewed Waste Management Question Evaluation
- Off-site Disposal Exemption Eliminated
 - Requirement for cost-benefit analysis guidance provided
- Responsibility for State notification of offsite shipments, audits of off-site facility
- Future Long Term Stewardship Planning recognizing the needs of the Office of Legacy Management
- Protecting assumptions from PA/CA
- Human intrusion
- Consolidation for reduced risk, cost reduction, based on disposal PA
- Classification prior to Disposal – Guidance and EFCOG Library



High-level Waste

- The definition of HLW is made consistent with the Nuclear Waste Policy Act of 1982
 - Also includes sub-definitions for key terminology in the HLW definition such as: “Highly Radioactive,” “Sufficient Concentrations,” “Reprocessing” and “Permanent Isolation”
- Includes National Defense Authorization Act for 2005, Section 3116 process
- Various updates to the Waste Incidental to Reprocessing evaluation and citation process
- Disposal of HLW waste not part of DOE O 435.1 Update



Transuranic Waste

- No significant changes to requirements except for new packaging instructions
 - Remote – and Contact – Handled TRU Waste Packaging Instructions currently a DOE Notice (Approved August 2011) will be converted into a required Technical Standard

Low-level Waste DAS Technical Standard



Chapter 1 – Disposal Authorization Statement Process

Chapter 2 – Performance Assessment

Chapter 3 – Composite Analysis

Chapter 4 – Closure Plan

Chapter 5 – Maintenance Plan

Chapter 6 – Monitoring Plan

Chapter 7 – Unreviewed Disposal Question Evaluation and Unreviewed
Composite Analysis Question Evaluation

Chapter 8 – Annual Summary

Chapter 9 – PA/CA Software Quality Assurance

Chapter 10 – Waste Acceptance

Path Forward – EFCOG Involvement in All Steps



Fall / Winter 2011

- Complete technical updates and first draft of new Technical Standard
- DOE General Counsel review
- Informal cross-PSO, Field review and **EFCOG Review**

Spring 2012

- Continue discussion with stakeholders
- Release updated DOE O 435.1 for public review

Summer 2012

- Formal DOE review through RevComm

Fall 2012

- Release final DOE O 435.1 for use across the complex
- Begin outreach and training to DOE and contractor staff