U.S. DEPARTMENT OF ENERGY | OFFICE OF ENVIRONMENTAL MANAGEMENT

Waste Management 2013
Hot Topics Panel

Alice Williams

Associate Principal Deputy Assistant Secretary

Office of Environmental Management

February 25, 2013

OFFICE OF ENVIRONMENTAL MANAGEMENT

Environmental Management: A National Responsibility

- We reduce risks and protect our workers, our communities and the environment through cleanup
- Our work is urgent and essential to the health and economic vitality of our communities and the nation and positions our Sites for future missions and use
- Our mission is not discretionary - it is a congressional mandate to D&D the gaseous diffusion plant under the U.S. Energy Policy Act of 1992 and a federal obligation to address the cold war environmental legacy cleanup and honor our regulatory commitments
- Time is not on our side – costs and risks increase over time
- We have demonstrated value for the American Taxpayer by delivering significant progress in the past several years in reducing risks and the overall liability - but our work is not done
- The Environmental Management portfolio is one of our nation's largest liabilities - we have a responsibility to relieve future generations of this environmental and financial liability

Environmental Management Priorities

- Activities to maintain a safe and secure posture in the EM complex
- Radioactive tank waste stabilization, treatment, and disposal
- Spent nuclear fuel storage, receipt, and disposition
- Special nuclear material consolidation, processing, and disposition
- High risk soil and groundwater remediation
- Transuranic and mixed/low-level waste disposition
- Soil and groundwater remediation
- Excess facilities deactivation and decommissioning

Considerations Going Forward

- We need to continue to reduce life cycle cost and accelerate cleanup by improving project planning and management and by incorporating new technologies to reduce risk.
  - The GAO has recently removed EM capital asset projects of $750 million or less from its high-risk list because of the nuclear cleanup program's progress in completing that work. This is an important step in our contract and project management improvement strategy, however, we still need to maintain the momentum for progress in these areas
- We need to continue to build upon our successes.
- We need to develop holistic approaches for cleanup of sites that take sustainability into account.

SRS and Closure of Tanks 18 and 19

Thomas P. D'Agostino, Undersecretary for Nuclear Security & Administrator, NNSA, South Carolina Department of Health & Environmental Control, Director Catherine Templeton and Senator Lindsey Graham unveil the historical marker at F Tank Farm at the Savannah River Site

The Liquid Waste Operations Activities at SRS

- Tanks 18 and 19 closed Sept 5, 2012
- Safely managing 37 million gallons of radioactive liquid tank waste to be treated and stabilized for final disposition Emptying, cleaning, and closing radioactive waste tanks
- Operating major nuclear facilities to treat and dispose of waste, e.g., DWPF and Saltstone Production and Disposal Facility In FY2012:
  - Produced a record 275 canisters of vitrified high-level waste
  - Treated 704,457 gallons with interim salt waste processing system
  - Disposed of 2.19 million gallons of low-level waste grout

Biomass Facility at SRS

SRS operating the largest biomass facility supporting federal operations

The new highly-efficient, biomass-fired cogeneration facility replaces a 1950s-era coal-fired plant and will result in significantly reduced pollutant emissions, including a reduction of 100,000 metric tons per year of carbon dioxide emissions. The new facility will reduce water and energy consumption, lower operating and maintenance costs and contribute substantially to achieving DOE's renewable energy goals. The Energy Savings Performance Contract (ESPC) funding the facility and two smaller biomass-fired steam plants was the largest ESPC — at $795 million — to date for renewable energy. ESPCs are performance-based contracts that leverage private sector funding.

200 West Groundwater Treatment Facility, Hanford

Tanks containing resins to remove contaminants from groundwater.

Equipment inside a groundwater treatment facility at Hanford.

Ariel view of the 200 West pump and treat facility at Hanford.

F Reactor Area, Hanford

F Reactor during operations in 1956

F Reactor in July 2012

K-25, Oak Ridge

K-25 was built in 1944. Demolition began in 2008, and it is expected to be completed next year. In all K-25 was comprised of 54 units.

Demolition of the north and west wings are complete, and there are only 6 units remaining on the east end.

DUF_6 at PPPO

Paducah 42,000 cylinders; Portsmouth 21,000 cylinders

About 740,000 metric tons of DUF_6 is in storage under DOE control

Metric Tons of DUF6 Processed as of the end of FY2012:

Paducah: 2791
Portsmouth: 3380
Total: 6171

TRU Waste Shipment at LANL

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Transuranic Waste Operations Activities: Waste Isolation Pilot Plant (WIPP)

Loading drums of transuranic waste into shipping cask for shipment to WIPP

Surface facilities at WIPP near Carlsbad NM

Shipment of transuranic waste for disposal at WIPP

Final disposition of contact-handled transuranic waste

Continuous mining machine used to excavate rock salt to create underground disposal areas

Moab

180 Staged Containers on Ground in Queue for Permanent Liner Installation

First Completed Lined Container

Permanent liners installed in all 332 containers during the 3 month work curtailment.

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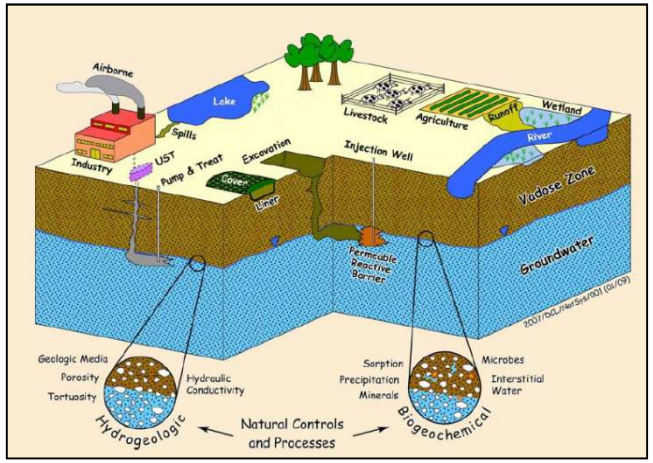
Complex at a Crossroads: Identifying Innovative Solutions to Budget Problems

Leverage DOE resources to maximize value for taxpayer

Maximize contractor performance through innovative incentive structures and accountability



Develop and apply cost-saving technologies

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DOE Office of Environmental Management FY 2013 Budget Request

Oak Ridge K-25 Facility

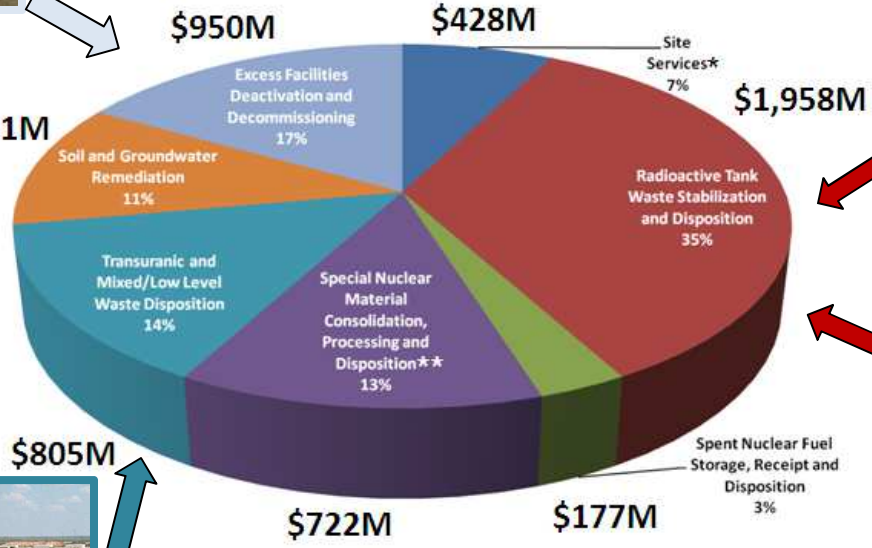
Savannah River Defense Waste Processing Facility (DWPF)

FY 2013 Budget Request - $5.65B

Idaho Waste Exhumation

Waste Isolation Pilot Plant (WIPP)

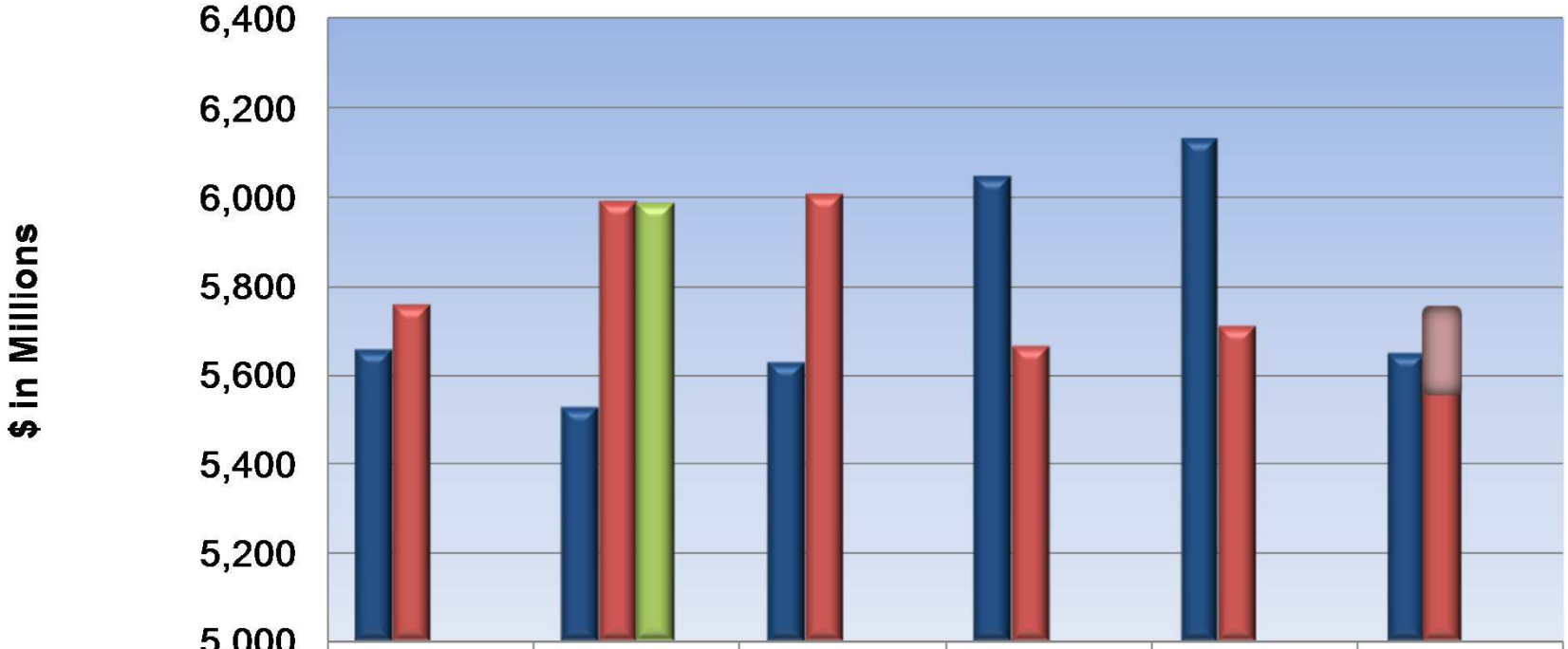
Hanford Waste Treatment Plant (WTP)



*Includes Program Direction, Program Support, TDD, Post Closure Administration and Community and Regulatory Support

** Includes Safeguards and Security

Budget Reality: EM Appropriations from FY 2008 - 2013



	2008	2009	2010	2011	2012	2013
Request	5,655	5,528	5,630	6,047	6,130	5,650
Approp/Op Plan	5,757	5,991	6,006	5,665	5,710	5,580 House 5,735 Senate
ARRA		5,988				
Delta	102	463	376	(382)	(420)	(70) House 85 Senate

Potential Impacts: High Level Waste

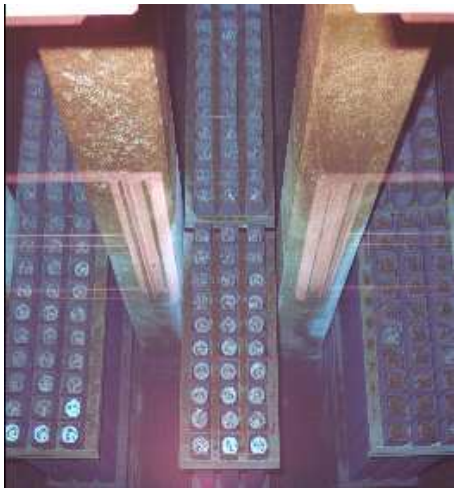
High level/tank waste treatment and disposition impacts could include:

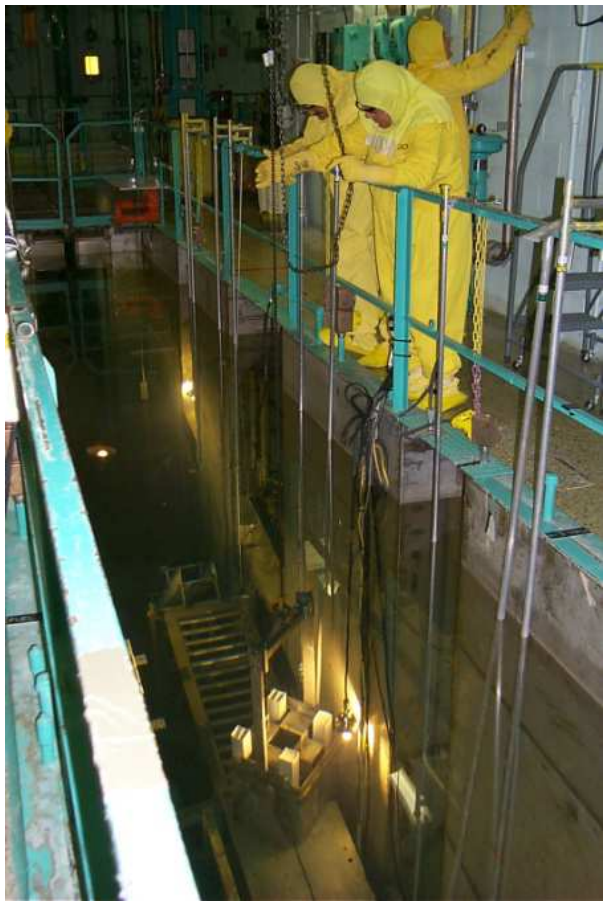
- River Protection—slowing of tank waste retrievals, delay in completion of waste treatment, significant increase in lifecycle cost and extension of schedule
- Savannah River—extension of liquid waste program, delay in final tank closures
- Idaho—deferral of calcine treatment
- West Valley—delay in high level waste canister relocation project

Potential Impacts: Materials and Waste Disposition

Material and waste disposition impacts could include:

- Richland—delay in completion of Cesium/Strontium capsule disposition and transuranic waste retrieval and disposition
- Idaho—delay in completion of Idaho Spent Fuel Facility
- WIPP—sub-optimal use of transuranic waste disposal resource





Technology Investments

Technology investments:

- Address EM's unique and complex technical challenges by capitalizing on scientific and technological advances.
- Promote an integrated approach to find new and better solutions that reduce technical risk and risk to human health and environment.
- Provide scientific basis to address outstanding issues, especially those related to tank waste and tank closure.
- Facilitate accelerated cleanup and reduce lifecycle costs.

Conclusions

- We need to create an environment of continuous improvement by identifying best practices and implementing them across the complex.

- We need to execute the EM mission in a sustainable manner that takes into account the three sustainability pillars (social, environmental, and economic), as well as trade-off considerations into our decision making.

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Waste Management 2013
Hot Topics Panel

Mark Gilbertson

Deputy Assistant Secretary, Office of Site Restoration

Office of Environmental Management

February 25, 2013

Office of Site Restoration

- The mission of the Office of Site Restoration is:
  - To identify and advance strategies to plan and optimize EM soil and groundwater remediation, deactivation & decommissioning and facility engineering projects
  - To ensure optimized management of projects and technical practices and to incorporate transformational technologies and sustainability factors into remediation
  - To ensure technically sound environmental and public health risk evaluations and performance assessments in selecting remedies and disposal sites
  - To promote long-term protectiveness and to ensure environmental compliance across the EM complex
- The Office of Site Restoration is comprised of three offices
  - Environmental Compliance
  - Soil and Groundwater Remediation
  - Deactivation & Decommissioning and Facility Engineering

FY2012 and FY2013 Accomplishments

- Issued the Tank Farm Closure and Waste Management Environmental Impact Statement for Hanford
- Completed Phase II Demonstration of Advanced Simulation Capability for Environmental Management (ASCEM)
- Conducted External Technical Review of Paducah D&D Plan
- Start-up of 200 West pump and treat facility at Hanford which is the first Leadership for Energy and Environmental Design (LEED®) "gold" certification for sustainable design in the DOE complex
- On March 12, 2012, the Savannah River Site began operation of the Biomass Co-generation Facility having an estimated $34 million in energy, operations and maintenance costs and reducing air emissions by eliminating the current coal and oil burning powerhouse

Goals Related to Site Restoration

- Reduce the life cycle cost and accelerate cleanup of the Cold War
  - Perform strategic reviews of site cleanup approaches to ensure maximum return on taxpayer investment
  - Work with regulators and stakeholders to develop a joint vision of compliance and cleanup end points
  - Use risk informed decision to improve priority setting
- Execute the EM mission in a Sustainable Manner
  - Develop strategies to execute sustainable solutions for site remediation
  - Continue to work with Environmental Protection Agency, Office of Management and Budget, and other regulators and stakeholders to implement these strategies

Hot Topics for Site Restoration

- Establish a collaborative Research and Development Program with the Office of Science
- Reduce EM's footprint by approximately 90%
  - Site restoration activities remain at 17 sites with a total of 318 square miles across 11 states
  - Costs and risks increase over time
  - EM has many as 200 major enforceable milestones to meet annually
- Develop Soil and Groundwater Remediation Strategic Plan to accelerate Site Closure

Hot Topics for Site Restoration

- Improve remediating “Lessons Learned” sharing across the complex
- Develop innovative technical solutions and scientific approaches to improve site restoration and to address complex problems
- Develop best practices for closure and monitoring of contaminated sites
- Strengthen communities of practice for
  - Remedy reviews
  - Compliance
  - Risk/Performance Assessments
- Continue to support asset revitalization efforts at EM sites

Compliance, Risk, and Priority Setting

- Environmental Compliance: One of EM's top program drivers
  - Different environmental statues drive different removal end points
  - Location of points of compliance (risk envelope)
- Risk prioritization: Existing processes provide the framework
  - Sequence and schedule – Federal Facility Agreements and Consent Orders
  - Remedy Selection – CERCLA Nine Criteria and Waste
  - Determinations/Disposal Authorization Statements
- Decisions regarding cleanup priorities need to be risk-informed to provide a balanced approach
  - Protection and remediation of environmental resources
  - Recognition that human and environmental risks are key factors that shape prioritization

Considerations Going Forward

- Incorporate upfront consideration of sustainability options and analyses that cover the three sustainability pillars (social, environmental, and economic), as well as trade-off considerations into decision making.
- Holistic approaches for remediation of sites with multiple contaminant sources and multiple post-closure uses, including technically based point-of-compliance and point-of-use monitoring locations.
- Integration of Natural Resource Damages considerations
- Effective post-closure controls: monitoring, institutional and engineering controls.

DOE's Sustainability Challenge

- How to expand our thinking about risk and sustainability to best manage existing risks?
- How do we take a more comprehensive and integrated approach to balancing impact of addressing environmental contamination risk
  - Short-term and long-term impacts
  - Worker and community impacts
  - Local and global impacts?
- How do we factor end states and future use into consideration?

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Systems-Based Strategy for Cleanup End Points

- Critical to DOE's ability to achieve cleanup
  - Defining technically defensible end points
  - Developing and implementing systems-based remediation approaches and systems-based monitoring strategies
- Cleanup End Points drive the selection of remedial objectives
- Remedial objectives drive monitoring approaches conducted to measure progress towards remedial objectives
- Monitoring data provides feedback on estimated timeframe for remediation
  - Also focus on ways to detect relevant changes in site conditions that may change the conceptual site model
- Systems-based cleanup and long-term management strategies have potential to use resources more effectively and sustainably

Next Generation, Risk-Informed Cleanup

- NAS charged by EM to facilitate workshop series bringing together:
  - DOE, DOD, and other regulated federal agencies
  - EPA (regions and HQ) and NRC
  - State regulatory agencies and the Environmental Council of the States
  - Key stakeholders
  - Tribal nations
  - National laboratories and universities
- To discuss concepts such as:
  - Holistic approaches for remediation of sites with multiple contaminant sources
  - Effective post-cleanup controls: monitoring and engineered and natural barriers
  - Assessing performance of site remedies and closures, including approaches that reduce uncertainties and need for post-cleanup controls
  - Risk-informed decision-making

DOE Approaches for Cleanup Completion

Scientific and Technical

- Systems-based approaches for decision support
  - Characterization and conceptual and predictive modeling
  - Monitoring – point source vs systems-based
  - Remedial design and optimization
  - Active/passive remediation efforts – transitioning & termination
- Multi-agency collaboration (EPA, DoD, NRC, NASA, USGS)

System delivers base solution to the gates to reduce the mobility and solubility of uranium and many other radionuclides.

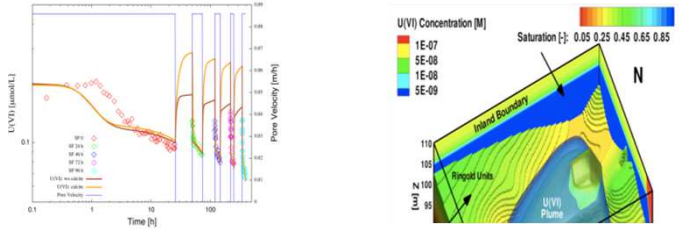
Critical Science Challenges Facing EM

- Waste forms: Reducing volume and glass alternatives
  - Impact: Increase loading of non-rad constituents, reduce cost and schedule
- Tank Waste Chemistry
  - Impact: Lower Tc requirements for alternative waste forms, increase loading
- Safe Mixing and Waste Transfer
  - Impact: Predict mixing and transport performance, increase WTP efficiency
- Predictive modeling and subsurface remediation
  - Impact: Reduce conservatism in system behavior, define alternate endpoints for site closure and reduce costs
- Applied Field Research Initiatives (AFRIs)
  - Impact: Enable the effective remediation of legacy waste sites (Hg, U, Tc, I, etc.)

Advanced Simulation Capability for Environmental Management (ASCEM)

- A State-of-the-art tool for predicting contaminant fate and transport through natural and engineered systems

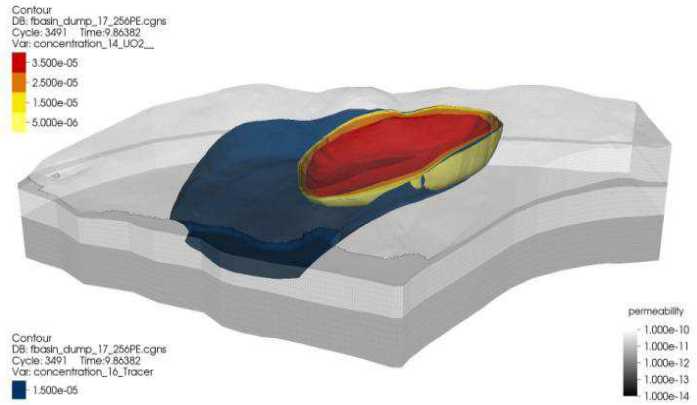
- High Performance Computing/Simulations
- Toolsets
  - Data Management
  - Parameter Estimation
  - Uncertainty Quantification
  - Risk Analysis
  - Visualizations
- Site Application and “What if” Scenarios

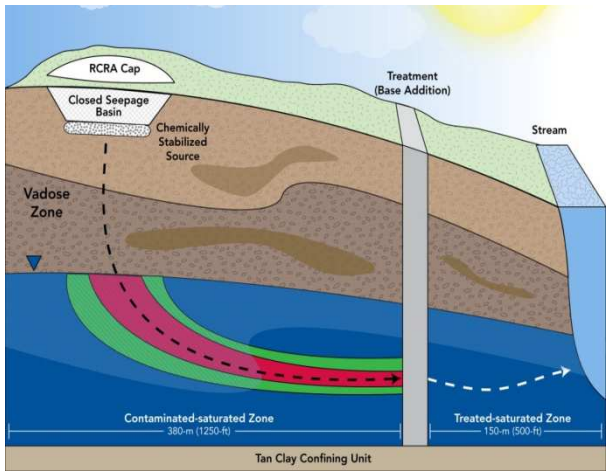


Wide Range of Complexity

Wide Range of Platforms

"Hot Topics" Summary





- Strategic planning
- Sharing "lessons learned"
- Collaborative R&D program
- Innovative technical solutions and scientific approaches
- Strengthen Communities of Practice
- Footprint reduction
- Asset revitalization
- Best practices for closure and monitoring

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Waste Management 2013
Hot Topics Panel

Ken Picha
Deputy Assistant Secretary for Tank Waste and Nuclear Material
Office of Environmental Management

February 25, 2013

FY 2013 Metrics

- Liquid Waste in Inventory: 138,700 cubic meters (36.6 million gallons)
  - Approximately 35,280 cubic meters (9.3 million gallons) of liquid tank waste eliminated:
    - 13,450 cubic meters of high-level waste vitrified into 3,560 HLW canisters at SRS
    - 11,237 cubic meters of salt waste processed through Actinide Removal Process/Modular Caustic Side Solvent Extraction Unit

Actinide Removal Process (ARP)

Modular Caustic Side Solvent Extraction Unit (MCU)

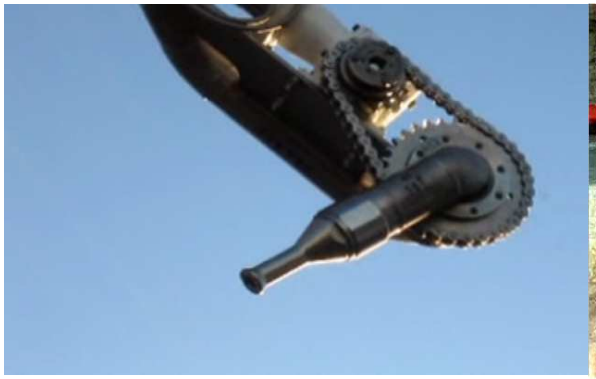
Reducing Life Cycle Costs

Liquid waste tanks cleaned and emptied: 6 tanks

- 16 tanks at the Hanford C Tank Farm are in varying status of residual waste retrieval

Mobile Arm Retrieval System

Enhanced Reach Sluicing



Caustic Dissolution

- 15 tanks at SRS being cleaned in preparation for closure

Reducing Life Cycle Costs

Total tank radioactive waste inventory: 281 Million curies

- 48.7 million curies vitrified into 3,560 high-level radioactive waste canisters

Defense Waste Processing Facility

Reducing Life Cycle Costs

- 404,000 curies of decontaminated salt waste disposed as saltstone

Completed upgrades to ARP/MCU to enhance operational throughput

Completing higher capacity Salt Disposal Units 3 and 5

Nuclear Materials at SRS

- The SRS goal is to process 20 kgs of surplus non-pit plutonium (to provide feed for NNSA's MOX facility) and 1.2 MT of aluminum-clad fuel in 2013.

H Canyon

Waste Processing at Idaho

- Idaho will process 900,000 gallons of sodium bearing waste

Sodium Bearing Waste Facility

Compliance, Contract and Project Management

- Improve project and contract management with the objective of delivering results on time and within cost.

Salt Waste Processing Facility
Re-evaluation of cost and schedule

Waste Treatment Plant
Technical issue resolution being completed

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Waste Management 2013
Hot Topics Panel

Frank Marcinowski
Deputy Assistant Secretary for Waste Management
Office of Environmental Management

February 25, 2013

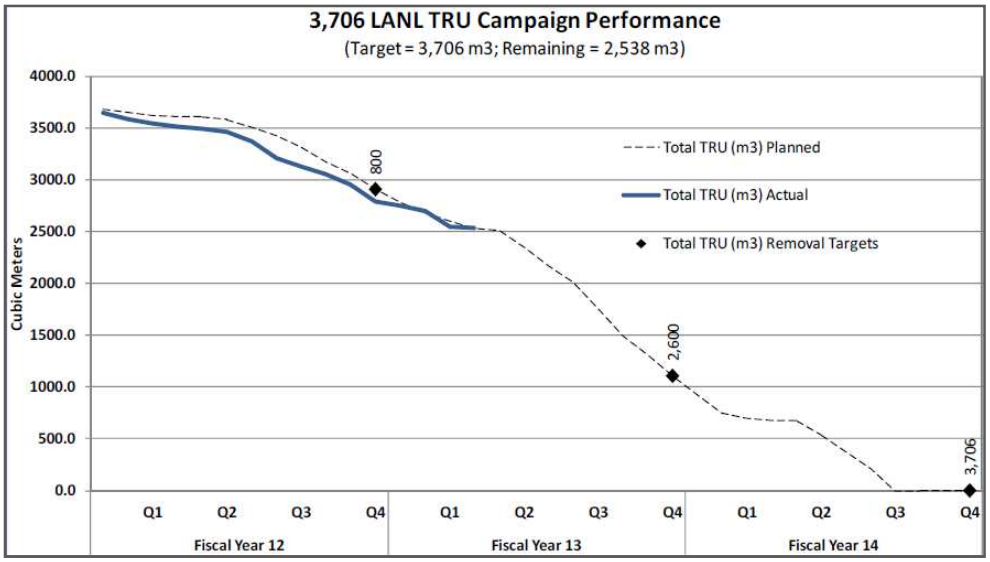
Waste Management Objectives

- Ensuring disposition paths are defined and available for all EM-generated waste streams
- Providing leadership in waste management policy for all Departmental programs and sites
- Optimizing use of existing disposal assets – including WIPP, the Nevada National Security Site, onsite facilities at DOE sites
- Promoting compliant and cost-effective use of commercial waste treatment and disposal services
- Preserving strong transportation safety record and providing needed services and packages
- Fulfilling statutory responsibilities related to commercial low-level waste management
- Developing and recommending disposition alternatives for certain materials
- Supporting ongoing evaluations related to future federal repository

Recent Accomplishments

- Los Alamos Framework Agreement
  - Negotiated in early 2012, commits to the removal of 3,706 m^3 of above-grade combustible TRU by end of June 2014
  - First year goal to remove 800 m^3 was exceeded; current year efforts on track, but require substantial increase in remediation and shipping rates
- Completed remediation and certification of 5,000 m^3 of legacy TRU waste at Savannah River Site
- Supported development of the Department's *Strategy for the Management and Disposal of Used Nuclear Fuel and High-Level Radioactive Waste*, in response to the Blue Ribbon Commission's recommendations
- Initiated joint-planning effort with Office of Nuclear Energy to research disposal of heat generating waste in a salt environment
- Published waste incidental reprocessing determinations for West Valley components

TRU Waste Disposition at LANL



TRU handling in AMWTP at Idaho

Sludge Drum Processing at Idaho

Disposal of Heat Exchangers at SRS

- Removed and disposed of 49 Low-Level Radiologically contaminated heat exchangers to on-site slit trenches completed
- Characterization data determined units could be disposed in SRS Low-Level Waste Disposal Facility
- Each Heat Exchanger was prepared and loaded onto heavy haul trailer and transported/unloaded/buried
- Activities were completed one month ahead of schedule utilizing Recovery Act funding generated through efficiencies in Decommissioning P/R Reactors

Upcoming Actions

- Public review of the updated DOE Order 435.1A, *Radioactive Waste Management*
- Publication of the final *Greater Than Class C (GTCC) Low Level Waste Environmental Impact Statement* and related Report to Congress
- Publication of the *Supplemental Environmental Impact Statement for Long Term Management and Storage of Elemental Mercury,* which includes evaluation of additional alternatives for storage facility
- Recommendations on development of on-site disposal facilities
- Continued interactions with NRC and state agencies on revised regulations and guidance related to near surface disposal
- Continued collaboration with Nuclear Energy on near term actions to implement the Department's strategy on used fuel and high level waste management

Key Messages

- Within current budget outlook, it is especially critical that EM ensures safe, reliable and cost effective disposition paths exist
- The program's refocused organization and process provide the tools needed to highlight waste management challenges and solutions
- Due to current status of EM projects, baselines and funding, solid waste disposition activities remain important but volumes are trending downward
- We will maintain our robust programs to ensure the safety and compliance of all radioactive material and waste movements

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Waste Management 2013
Hot Topics Panel

Matthew Moury

Deputy Assistant Secretary for Safety, Security and Quality Programs

Office of Environmental Management

February 27, 2013

Safety, Security and Quality Assurance

- **Goal: Improve safety and quality performance towards a goal of zero accidents, incidents, and defects and continue to improve the EM Complex-Wide Safety Culture.**
  - Safe performance of work is our first priority and a core value.
  - EM will continue to foster a safety culture that promotes quality in all work in a safe and secure manner by establishing strong leadership behaviors that reflect EM's expectations.
  - Integrated Safety Management is the process by which EM sites and projects integrate safety, security and quality throughout their lifecycle.
  - EM will study its activities and use safety, security and quality performance indicators that are applicable to the variety of operations found at EM sites to evaluate performance.
  - Use sound engineering, management and science, along with developing a proactive relationship with the Defense Nuclear Facilities Safety Board (DNFSB) and stakeholders to expeditiously resolve concerns and issues.

FY2012 Performance Metrics

- Maintain an average Total Recordable Case rate of <1.3 and a Days Away from Work, Restricted Work or Transfer case rate of <0.6 – 0.7.
- Ensure that at least 95% of defective equipment and/or software procured from subcontractors and prime contractors are detected before installation at a nuclear facility.
- Develop a proposal for reducing and/or streamlining security requirements of D&D operations at EM sites to accelerate the completion of D&D operations and reducing the site footprint.
- Attain a level of zero to 20 percent overdue action items resulting from DNFSB letters or recommendations, as identified in the DOE Safety Issues Management System.

FY2012 Accomplishments

- TRC rate – 0.6, DART rate – 0.3. Both rates have dropped about 30 percent from FY 2009 to FY 2012. Rates are significantly lower than comparable industries.
- Greater than 99% of defective equipment and/or software procured from subcontractors and prime contractors were detected before installation at a nuclear facility.
- Declassified access and handling of Gaseous Diffusion Plant components, reducing costs for worker access clearances, handling, transportation, storage, and disposition of large GDP components during D&D.
- Had less than 5 percent overdue action items resulting from DNFSB letters or recommendations, as identified in the DOE Safety Issues Management System.

Additional FY2012 Accomplishments

- Trained more than 700 senior DOE and Contractor Managers on Leadership for a Safety Conscious Work Environment to strengthen DOE's Safety Culture.
- Issued Rev 1 to the EM Quality Assurance Program incorporating changes in DOE Order 414.1D, Quality Assurance, and adopting NQA-1-2008, *Quality Assurance Requirements for Nuclear Facility Applications*, and addenda through 2009.
- Evaluated annual ISM declarations and provided feedback and best practices to every site.
- Provided Commercial Grade Dedication (CGD) training to major EM sites. Working with the Chief of Nuclear Safety (CNS) the training included recently released guidance specific to software CGD.
- Working with EFCOG launched the Joint Supplier Evaluation Program (JSEP). JSEP has been turned over to EFCOG for continued implementation and use.

FY2013 Metrics

- Maintain an average Total Recordable Case rate of <1.1 and a Days Away from Work, Restricted Work or Transfer case rate of <0.6.
- Both HQ and Field Offices will complete implementation of EM-QA-001 Rev 1, *Quality Assurance Program*, by June 30th 2013, and verify implementation by September 30, 2013 through an independent assessment of the established program.
- Ensure that at least 80 percent of EM site contractors performing D&D, industrial or nuclear work have implemented a work planning and control (WP&C) program based on EM-HQ, URS, or EFCOG WP&C guidance and confirmed through the annual ISM Effectiveness Review WP&C Criterion 6 assessment.

FY2013 Metrics

- Ensure that at least 80 percent of EM sites and contractors have established performance metric systems and established metrics that monitor the health of key programs (people, processes and equipment) to prevent identified adverse outcomes or events, data is tracked, and emergent negative trends are investigated and addressed.
- Perform cyber security assistance visits to at least 7 EM field sites by September 30, 2013, meeting Federal Information Security Management Act (FISMA) requirements.
- Perform assessments using the new 800-53 Revision 3 controls on 4 classified systems by August 31, 2013, meeting FISMA requirements.

Integrated Safety Management and Improving Safety Culture

- Continued focus on annual ISMS effectiveness reviews – foundation for safety culture improvements. Declaration reports focus on:
  - Development of meaningful safety Performance Objectives Measures and Commitments where expected outcomes are clear and measurable.
  - Establishment of leading indicators for nuclear and other high hazard facilities.
  - Quality Assurance annual metrics.
  - Field element oversight and contractor assurance systems.
  - Activity level work planning and control.
  - Safety Conscious Work Environment Self-Assessment.

Safety culture tool for everyday use

- Safety culture is an organization's values and behaviors modeled by its leaders and internalized by its members, which serve to make safe performance of work the overriding priority to protect the workers, public, and the environment. (ISMS Guide)
- Three safety culture focus areas: Leadership, Employee/Worker Engagement, Organizational Learning.
- Under Organizational Learning is the Questioning Attitude attribute.
  - Individuals cultivate a constructive, questioning attitude and healthy skepticism when it comes to safety. Individuals question deviations, and avoid complacency or arrogance based on past successes.
- What questions should be asked?
- Integrated Safety Management provides the framework.
  - What am I trying to do?
  - Do I have adequate controls to protect me; are they in place?
  - Next time - could I do it better/safer/cheaper?

INTEGRATED SAFETY MANAGEMENT

U.S. DEPARTMENT OF ENERGY | OFFICE OF ENVIRONMENTAL MANAGEMENT

Waste Management 2013
Hot Topics Panel

J. E. Surash, P.E.
Deputy Assistant Secretary for Acquisition and Project Management
Office of Environmental Management

February 25, 2013

Performance Agreement Goal

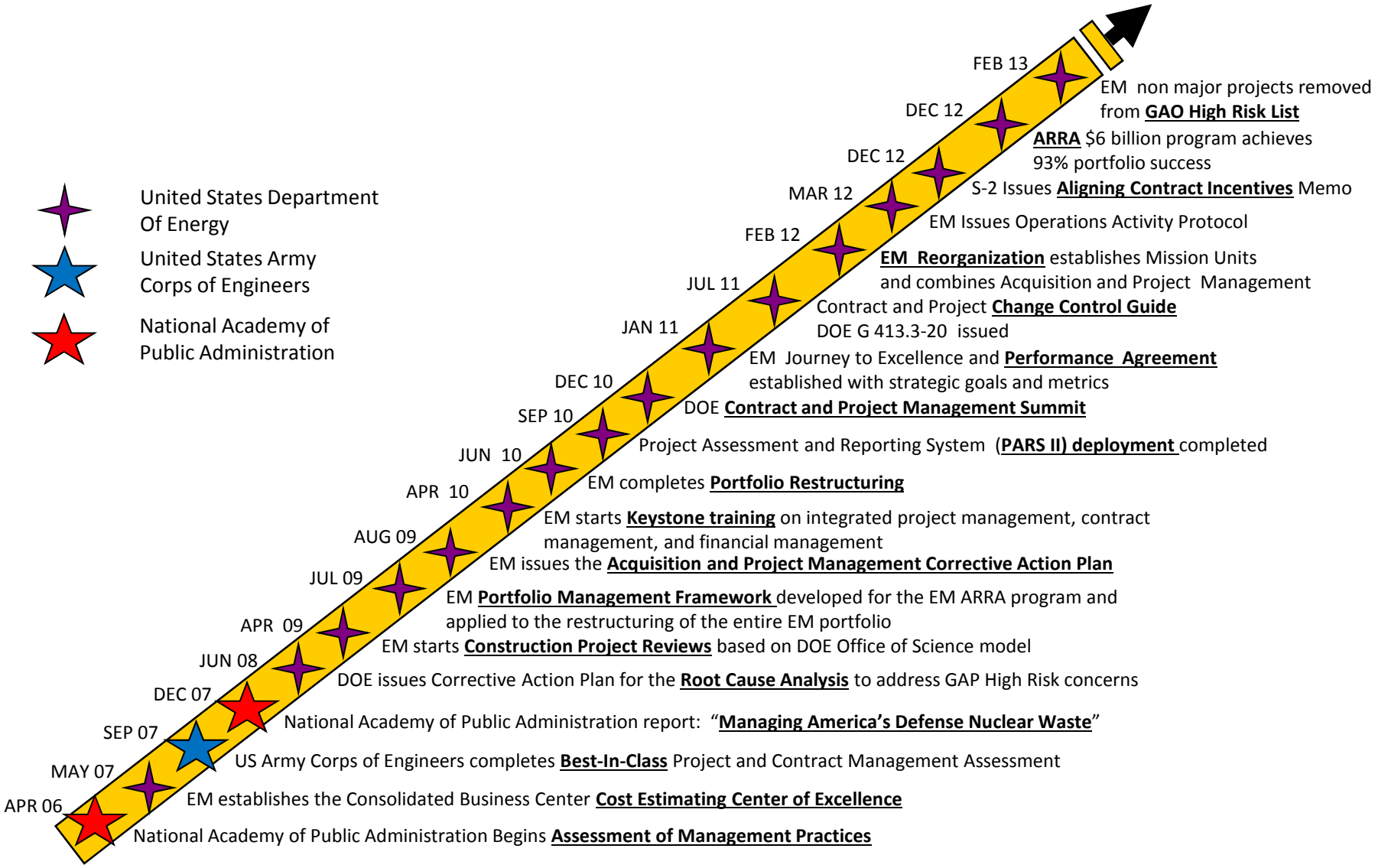
- Improve project management
- Improve contract management
- Deliver results on time, within cost
- Goal: Improved Project and Contract Management that results in getting "completely" off the GAO High-Risk List

GAO Criteria to Demonstrate Success

High-Risk List: Department of Energy Contract Management

Criteria Agencies Must Meet Before High-Risk Designations Can Be Removed	DOE Has	
	Met Criteria	Not Yet Met Criteria
Demonstrate strong commitment and leadership	☑	
Demonstrate progress in implementing corrective measures	☑	
Develop a corrective action plan that identifies root causes, effective solutions, and a near-term plan for implementing the solutions	☑	
Have the capacity (people and resources) to resolve the problems		☑
Monitor and independently validate the effectiveness and sustainability of corrective measures		☑

Improvement Timeline



Performance Agreement Goal

Key Outcome Metric
Full removal from GAO High Risk List for Contract Management

Annual Performance Agreement

Signed by EM Senior Leadership

Improvement Action Leads

FY 2012 Key Success Indicators

Performance Metric	Status	FY 2012 Results
1. Achieve EM overall prime contract small business goal of five percent.		6.9% ($353.6M of $5.160B). EM exceeded small business stretch goal of $300M for FY 12.
2. Approve 80 percent of contract performance baselines within 180 days from contractor's final accepted submission.		1 of 3 (33%) contract performance baselines was approved within 180 days.
3. Finalize 80 percent of change orders within 180 days.*		1,244 of 1,249 (99.6%) contract modifications were approved within 180 days.
4. Ensure 90 percent of contracting series workforce has appropriate certification.		97% (98 of 101) GS 1102 were appropriately certified.
5. Implement partnering agreements for at least three additional contracts bringing total to nine.		Three additional partnering agreements (ORP-WRPS, West Valley-CHBWV, and ETTP-UCOR)
6.Conduct a Contracting Summit Meeting to focus on contract performance issues and improvement actions.*		The Summit meeting was held on 2/15/12.

* Metrics in Green were dropped in FY 2013.

FY 2012 Key Success Indicators

Performance Metric	Status	FY 2012 Results
7. Complete 90% of capital asset projects with TPC greater than or equal to $10 M within 10% of original cost and schedule performance baselines.		90% (45of 50) capital asset EM Cleanup projects completed within 10% of original cost.
8. Ensure 90 % of projects have Federal Project Directors certified at the appropriate level assigned to projects no later than Critical Decision 3.		100% (15 of 15) projects have FPDs certified at the appropriate level.
9. Ensure 95% of contractors managing capital asset projects with TPC greater than or equal to $20M maintain their Earned Value Management System certification.		100% of EM contractors managing capital assets greater than or equal to $20M have certified earned value management systems.
10. Manage contract and project changes so that 100% of BCPs are approved after CO issues either a unilateral contract mod or completes contract negotiations for a bilateral change.		89% (8 of 9) BCPs were approved after the CO issued either a unilateral contract mod or completed a contract negotiation for a bilateral change.

FY 2012 Key Success Indicators

Performance Metric	Status	FY 2012 Results
11. Complete 35 project peer reviews for active post CD-0 capital projects with TPCs greater than $10M.		100% (35 of 35) project peer reviews planned for FY 2012 had been completed.
12. Notify and receive "deviation" decision from the appropriate approval authority prior to current performance baseline being breached.		80% (4 of 5) projects that breached their performance baseline did receive deviation memos.
13. Perform a complex-wide strategic planning analysis of the costs, benefits, and other impacts associated with adjusting the current cleanup schedules and approaches consistent with projected fiscal conditions by 7/31/12.*		11 sites were identified as requiring scenarios. Analysis packages have been completed for the 11 sites requiring scenarios.
14. Establish an HQ/Field X-Team to streamline/reduce non-value reporting/reports by 6/30/12.*		An X Team was formed as a sub team to the Process Improvement Team.

* Metrics in Green were dropped in FY 2013.

Key Strategies

- Annually assess contract and project management staffing and skills.*
- Independently validate the effectiveness and sustainability of improvement actions.*
- Maintain alignment of work and contract through timely approval of changes.
- Increase use of prime contractor small businesses.
- Become a stronger owner.
- Execute world-class contract management and administration of traditional and management and operations multi-year contracts.

* GAO High Risk Criteria

FY2013 Key Success Indicators

3-1: Achieve the overall prime contract small business goal of 6% for each site with a stretch goal of the current DOE goal.

3-2: Approve initial contract performance baselines with work aligned with the contract for the following 5 contracts (1) Portsmouth Gaseous Diffusion Plant D&D; (2) DUF6 Conversion Plants; (3) ORP Tank Operations; (4) Idaho Cleanup Project; (5) MOAB.

3-3: Ensure 90% of contracting series workforce has appropriate certification.

3-4: Implement partnering agreements for at least three additional contracts.

3-5: Complete 90% of capital asset projects (initiated after the DOE Root Cause Analysis report was issued) with TPC greater than or equal to $10M within 10% of original cost and schedule performance baselines, unless impacted by a directed change.

NOTE: Metrics in red are revisions to FY 2012 Metrics.

FY2013 Key Success Indicators

3-6: Ensure 90% of capital projects have Federal Project Directors that are certified at the appropriate level assigned to projects not later than CD-3

3-7: Ensure 95% of contractors maintain their Earned Value Management System certification, when EVMS is required by Contract

3-8: Manage contract and project/operations activity changes so that baseline changes and/or operations activity changes are approved only after CO issues either a unilateral contract mod or completes contract negotiations for a bilateral change in all (100%) cases

3-9: Complete 24 project peer reviews for active post CD-0 capital projects with TPC's greater than $10M

3-10: Notify and receive "deviation" decision from the appropriate approval authority as early as possible but at least 30 days prior to current performance baseline being breached in all (100%) cases

NOTE: Metrics in Red were revised for FY 2013.

U.S. DEPARTMENT OF ENERGY | OFFICE OF ENVIRONMENTAL MANAGEMENT

Waste Management 2013
Hot Topics Panel

Melody C. Bell

Acting Deputy Assistant Secretary for Human Capital and Corporate Services

Office of Environmental Management

February 27, 2013

Achieving Management Excellence

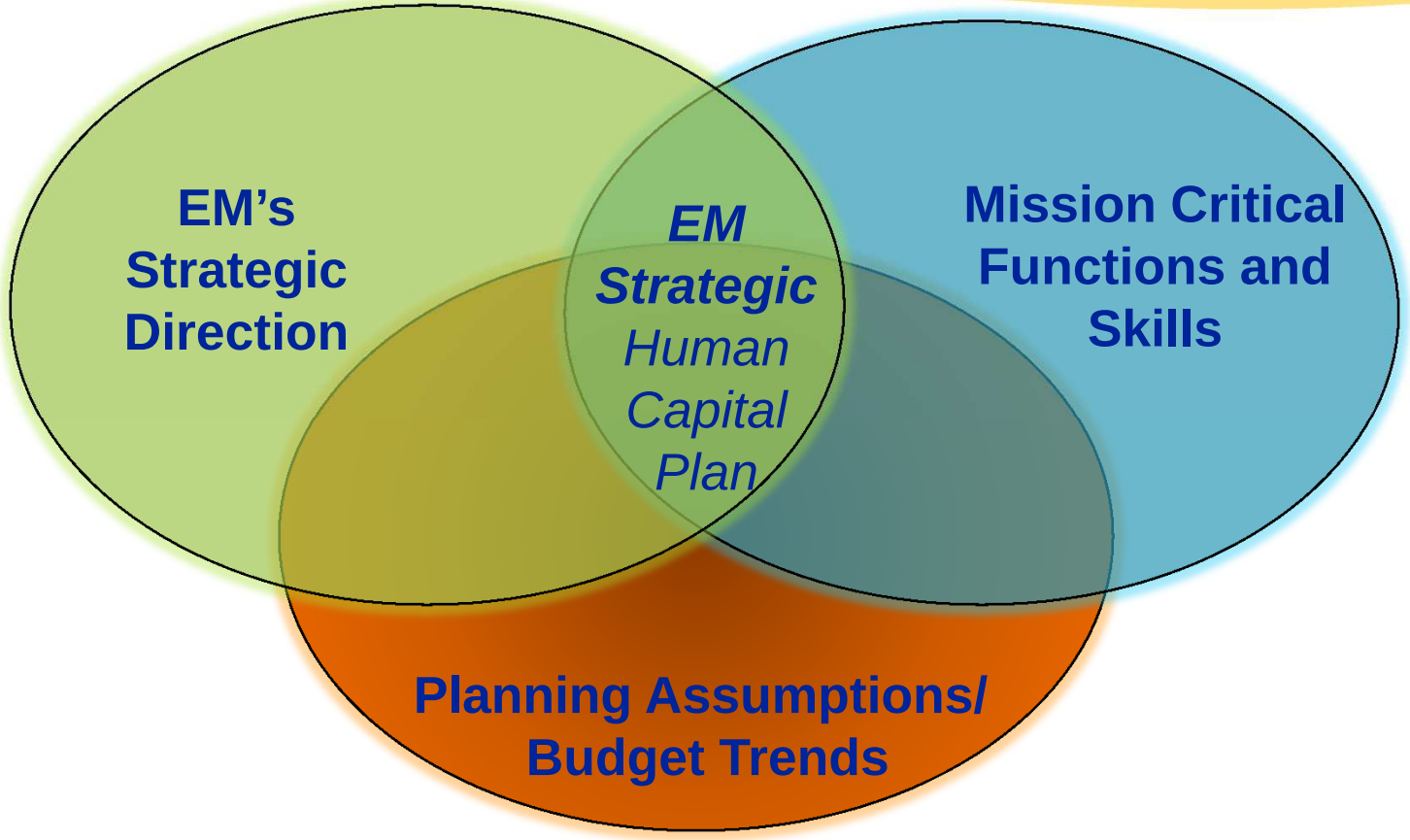
Achieve excellence in management and leadership with the objective of making EM an employer of choice in the Federal Government.

STRATEGY: Execute/Assess an EM-wide Workforce Plan to address acquisition talent, succession planning, and performance competence so we can attract, retain, develop, mentor, and motivate the most highly-qualified, capable, and diverse workforce in the Federal Government.

Prevailing Workforce Challenges

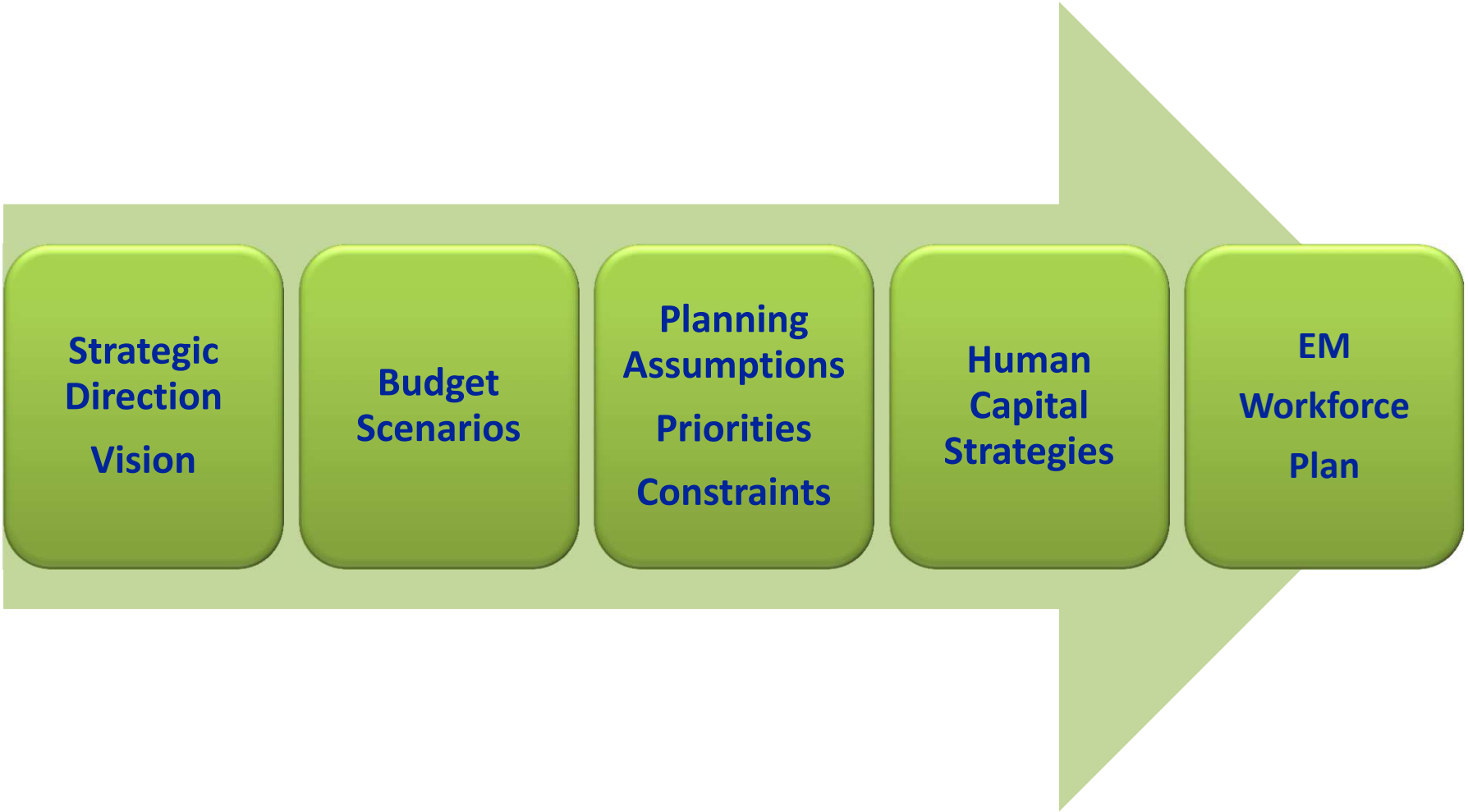
- Emerging budgetary challenges
- Aging workforce
- Skills imbalance and lack of bench strength
- Long term EM mission
- Contract strategies
- GAO Critical List/IG Reports
- Silo approach to human capital

Aligning Workforce with Mission Needs



Forecasting our future demands to getting the right people, with the right skills, in the right place, at the right time

Leadership Workforce Progress



Workforce Planning Steps

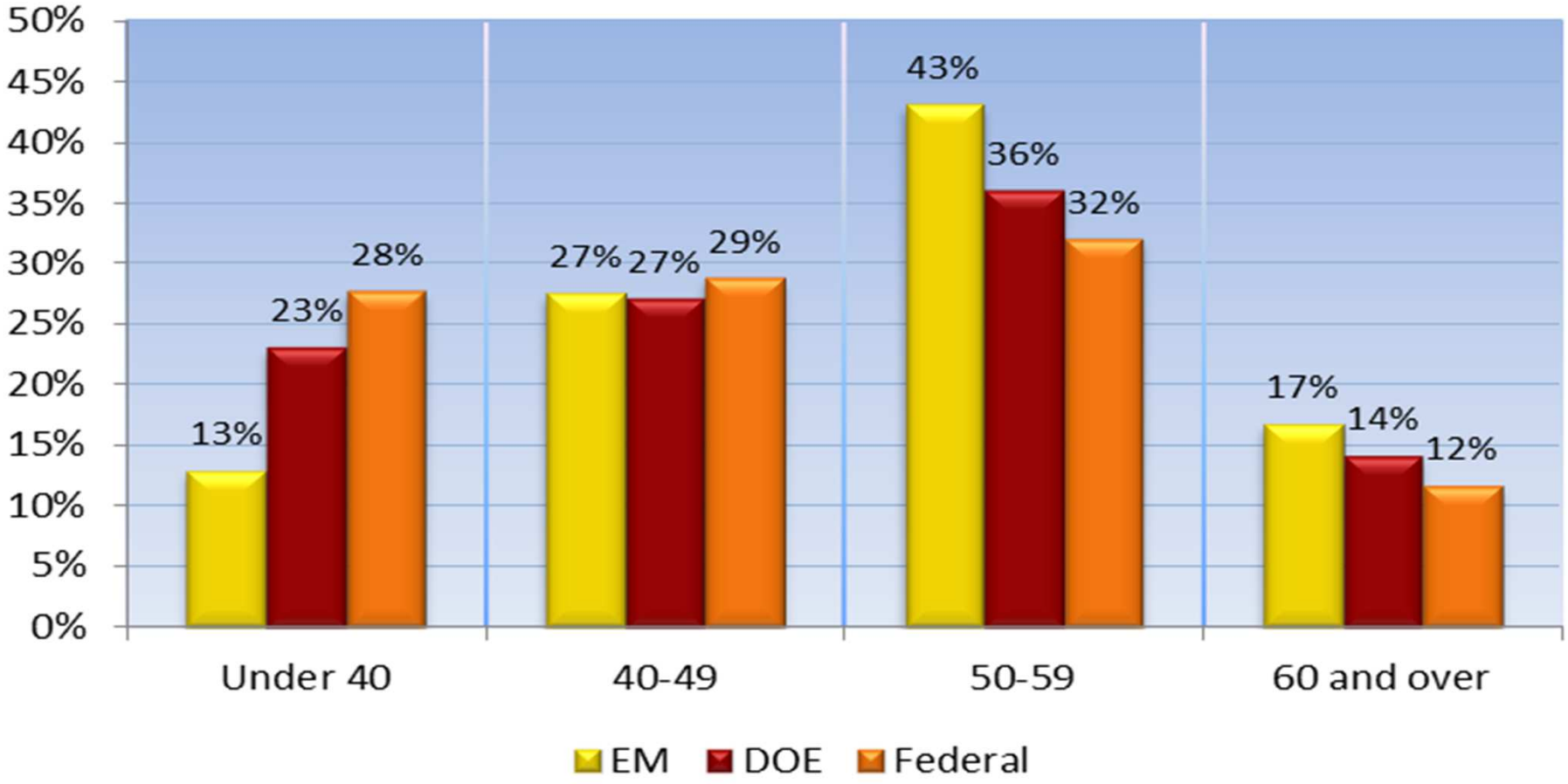
- **Step 1 – Identify Strategic Direction**: Mission requirements and organizational priorities are announced/communicated

- **Step 2 - Align Workforce with the Work Requirements of the Strategic Direction**: Office managers and resource managers identify the workforce needed to meet mission requirements and organizational priorities

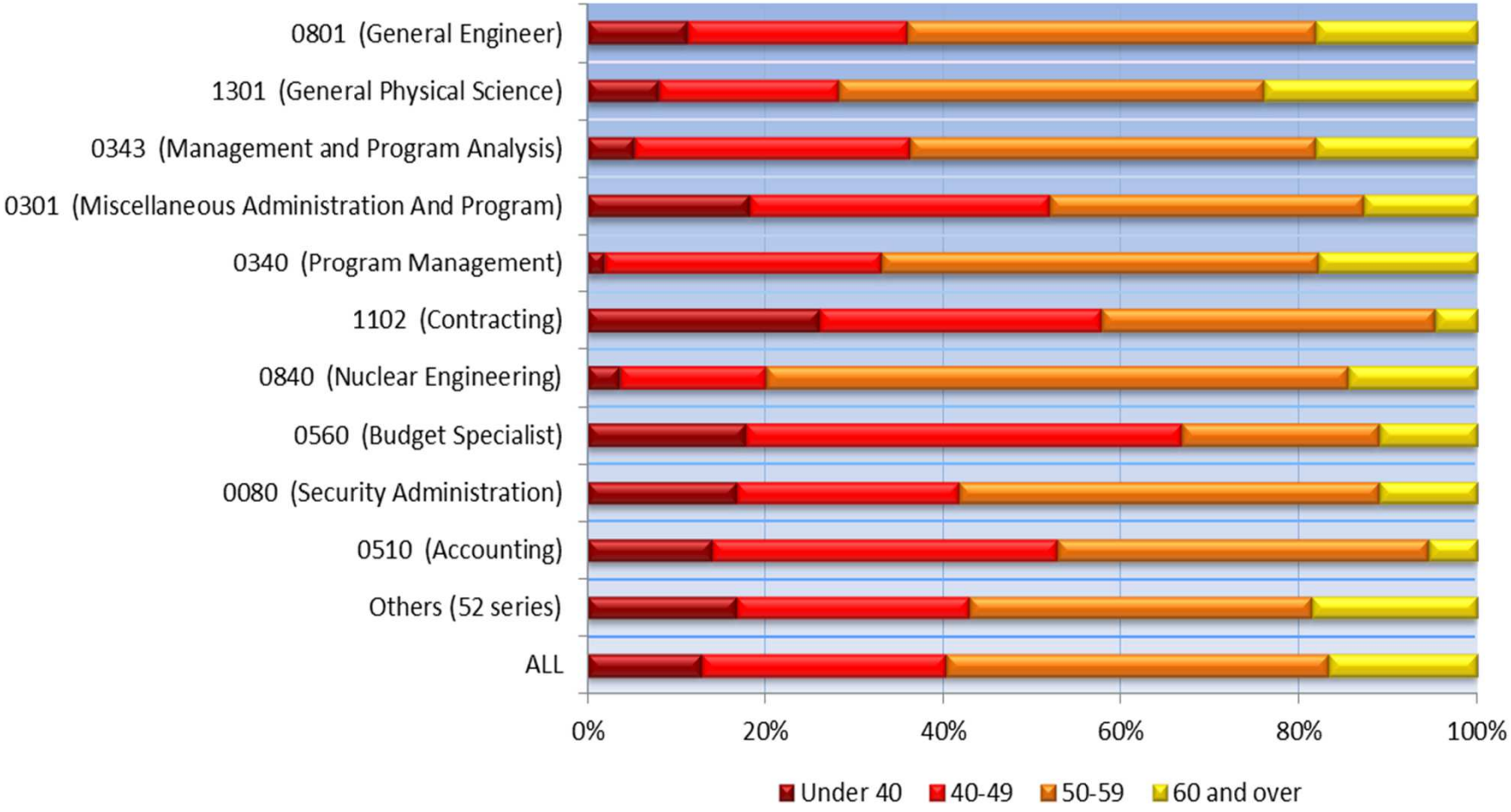
- **Step 3 – Inventory Existing Workforce**: Identify existing gaps between the current workforce (size/skill) and workforce needed to meet future demands; develop strategies to close gaps.

- **Step 4 – Prioritize Organizational Workforce Needs:** Review all staffing proposals and make decisions on which hiring requests to approve.

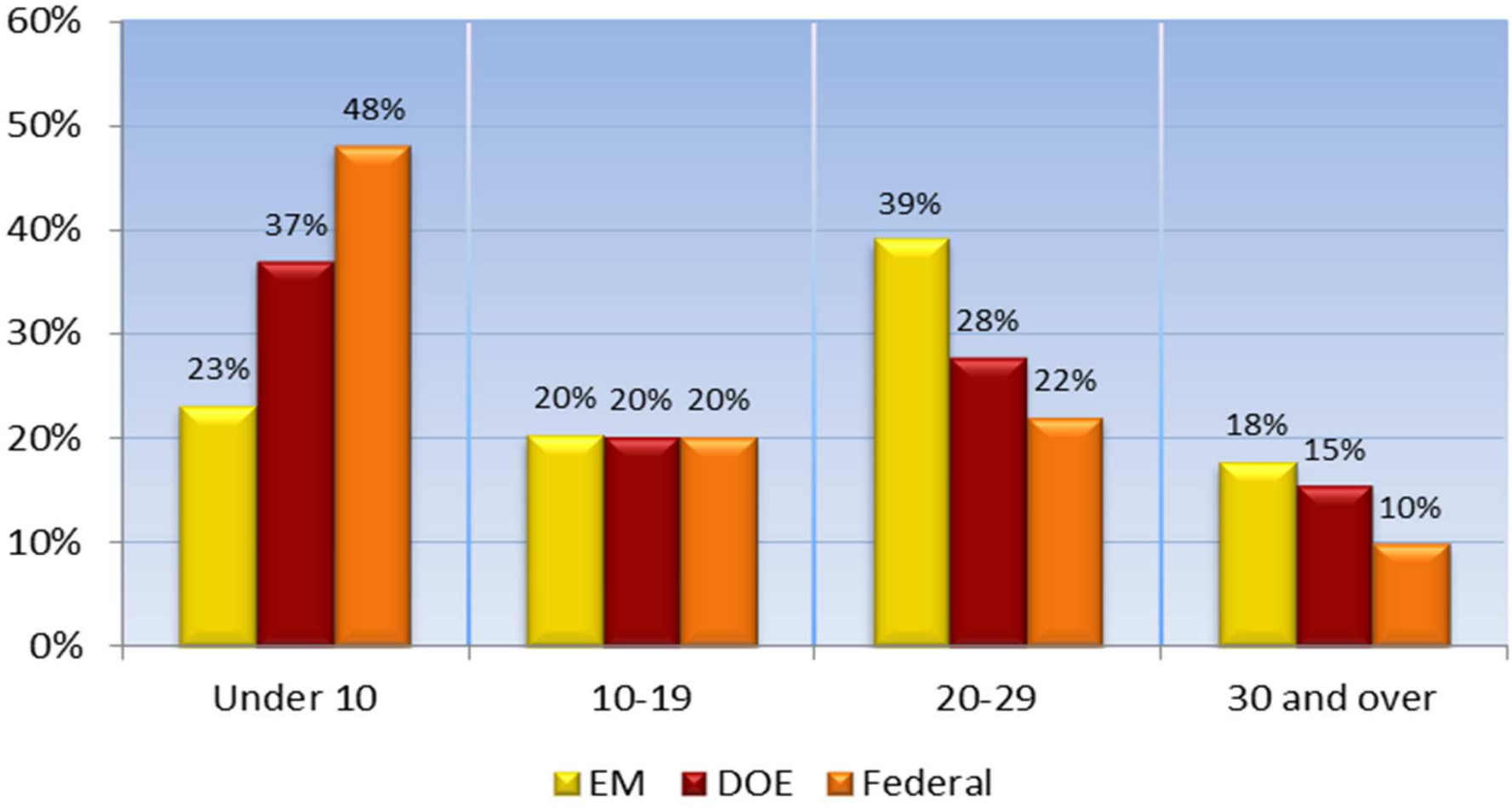
Workforce by Age Range



Occupational Series by Age Range



Workforce by Length of Service



OFFICE OF ENVIRONMENTAL MANAGEMENT

Human Capital Focus on EM Mission

- Need transformative approach to ensure that every EM employees is able to maximize their contribution to the EM mission
- Need to ensure that EM has a human capital system, led by EM leadership that aligns HC strategies with EM mission, goals , and objectives by effective analysis, planning, investment, measurement and management of human capital programs.
- Develop and implement decisions that ensure EM's human capital resources (needs) are strategically aligned and effectively implemented across the EM complex.
- HQ and field leadership collectively guide the development of "forward" looking, corporate human capital strategies, plans and oversee the execution of human capital initiatives.