

Implementation of the Best in Class Project Management and Contract Management Initiative at the U.S. Department of Energy's Office of Environmental Management How It Can Work For You

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Outline

- Objective
- Department of Energy Office of Environmental Management
- Best-in-Class Project Management Initiative (BICPM)
- Technical Approach
- Assessment Criteria and Results
- Recommendations
- Progress toward BICPM Implementation
- Challenges Facing BICPM Implementation



Objective

- Provide a short briefing on:
 - Overview of DOE-EM program and project management challenges.
 - Discussion of the DOE-EM's Best-in-Class Project
 Management Initiative (BICPM) including its purpose, approach, results, and recommendations.
 - Lessons learned and how Project Management can be applied across other industries and large portfolio management programs.



Office of Environmental Management

- EM is responsible for the risk reduction and cleanup of the environmental legacy of the U.S. nuclear weapons program and its five decades of weapons development and nuclear energy research.
- EM is managing one of the largest, most diverse, and technically complex environmental programs in the world.







Office of Environmental Management

• Originally tasked to clean up 108 contaminated nuclear weapons development and nuclear energy research sites across the U.S. Active cleanup is now concentrated at 23 sites in 15 states.





Office of Environmental Management

- DOE spends billions of dollars annually to clean up nuclear wastes
- There are literally thousands of cleanup projects including:
 - Decommissioning of facilities
 - Environmental restoration of soil and groundwater
 - Stabilize and dispose of solid and liquid radioactive wastes
 - Safeguard materials that could be used in nuclear weapons
- DOE-EM has been criticized for poor project and contract management and a lack of accountability and oversight of its major cleanup projects







Best-in-Class Project Management Initiative (BICPM)

- One of several initiatives undertaken by EM to improve project management
- Assess project management strengths, weaknesses, and skill gaps
- Identify factors that hinder EM's ability to effectively manage its projects
- Identify priority action items needed to correct known problems
- Improve accountability and management of EM's major cleanup projects



BICPM Initiative – Approach

- <u>Phase I Assessment Work Plan</u> Defined assessment criteria and core competencies needed for project management.
- <u>Phase II Conduct Site Assessments</u> Assessed PM strengths, weaknesses, and skill gaps at the field and HQ using criteria and benchmarks.
- <u>Phase III Corporate Implementation Plan</u> Documented recommendations and a strategy to address deficiencies.
- <u>Phase IV Implementation</u> Implementation of recommendations are currently in various stages; most have been completed.
- <u>Phase V Cultural Change</u> In Transition BICPM is evidenced by substantial improvements in project management performance and an institutionalizing effective project-oriented culture.



BICPM - Project Management Assessment Criteria

- Compliance with project management orders and directives
- Cost estimating
- Scheduling
- Baseline management
- Project controls
- Risk management
- Engineering expertise
- Functioning integrated project teams
- Contracting and acquisitions
- Project management software
- Training and professional development
- Internal organization structure



Assessment Results – Root Causes of Project Management Deficiencies

- Inadequate PM / CM resources and skill sets
- Too much reliance on contractor
- Inadequate project oversight / failure to identify project performance issues / insufficient verification of contractor reported EV
- Insufficient design / planning prior to establishing baselines
- Contract type and acquisition strategies
- Size of projects
- Project risks not identified, assessed, communicated, and managed
- Awarding contracts prior to development of adequate independent government cost estimates
- Project management requirements not consistently followed



Recommendations

- Assign leadership for BICPM implementation
- Provide additional PM/CM resources based on size, complexity, and life cycle of site mission
- Provide PM / CM capability reach-back
- Perform regular surveillance of contractor reported EV
- Establish a standardized and integrated change control process
- Address unresolved baseline change proposals and REAs
- Clarify roles and responsibilities between PM and CM organizations
- Complete DOE EM project management guidance
- Establish standards for EM management products and practices
- Implement enterprise project management software



Recommendations

- Identify and adopt best practices, eliminate stove piping
- Develop and improve Federal work plans at each site
- Complete and utilize Federal risk management plans
- Maintain validated Near Term Baselines and defensible Life Cycle estimates
- Training and professional development
- Develop cost estimating database
- Develop EM program level contingency
- Streamline Critical Decision document review and concurrence
- Update and implement human capital plans



Progress Toward BICPM Implementation

- Development and management of federal baselines
- Development and implementation of federal risk management plans
- Project size reduction and "chunking"
- Project re-categorization into Capital Assets and Operations
- EVMS surveillance and assessment of contractor reported data
- Completion of project management guidance and templates
- Training and mentoring of DOE staff
- Holding the contractor accountable, questioning the contractor
- Functioning Integrated Project Teams
- Compliance with DOE-EM Project Management Order 413.3A



Challenges facing BICPM Implementation

- Continued Federal reliance on contractor
- Not holding contractors accountable
- Internal organization structures are weak at some sites
- Site needs are much greater than capabilities of smaller teams
- Project management resources not effectively utilized
- Changing priorities at sites, fire drills
- Shortage of risk management, cost estimating and other PM professionals