



EM Projects Perspective

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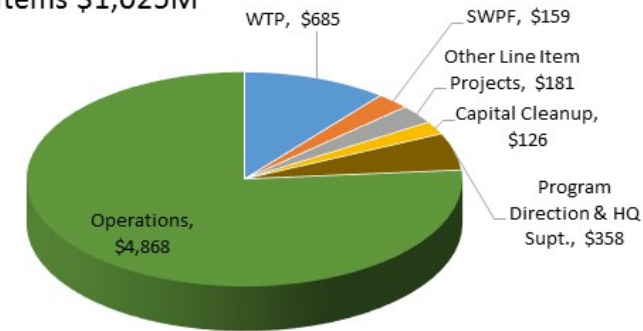
2018 Department of Energy Project Management Workshop
March 13, 2018



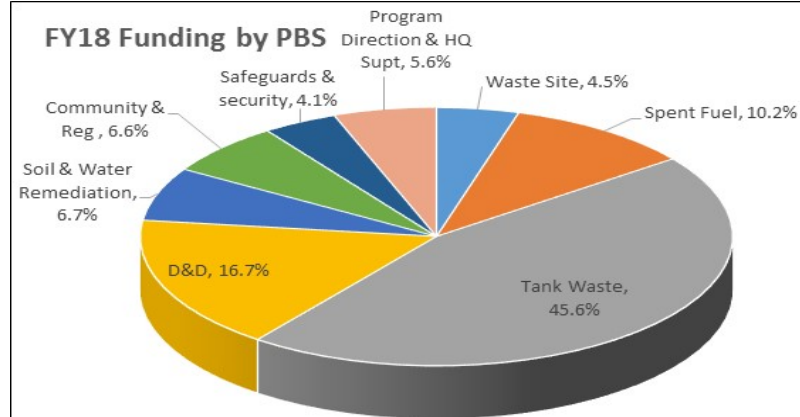
EM Portfolio Overview

- **11 Line Item Construction Projects – \$21.5B combined TPC**
 - **Waste Treatment and Immobilization Project (WTP)**
 - **Salt Waste Processing Facility (SWPF)**
 - **9 Others**
- **10 EM Cleanup Projects (post CD-2) – \$2.7B combined TPC**
- **26 Active Pre CD-2 Projects - \$32.5B**
- **Operations Activities - Life Cycle Cost Range \$187B-\$210B**

FY2018 Total Funding \$6.4B
Capital Project Funding \$1,152M
Line Items \$1,025M

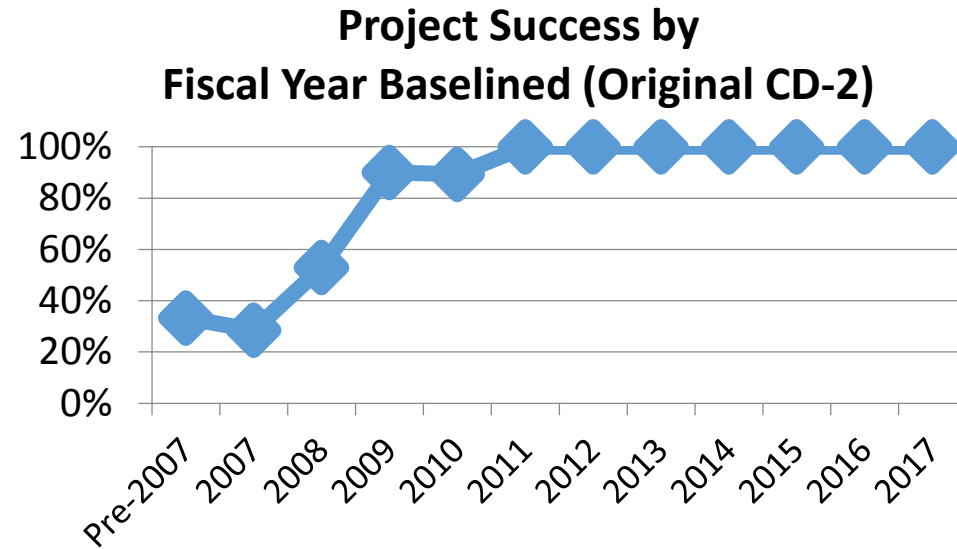


FY18 Funding by PBS





EM Project Success Trend



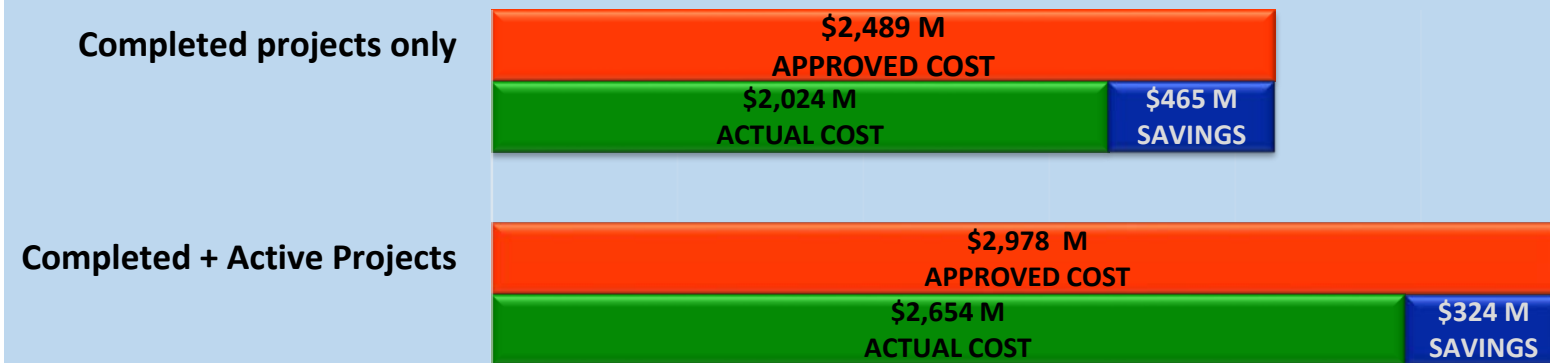
- EM projects baselined since 2008 have been more successful
 - Cumulative portfolio success of 93% (52 of 56) for projects baselined after FY 2008
 - Earlier baselines were only 44% (12 of 27) successful
- Factors contributing to improved results include:
 - Smaller well-defined projects
 - More design maturity at CD-2
 - Use of Peer Reviews
 - Proper funding

Fiscal Year of CD-2	2009	2010	2011	2012	2013	2014	2015	2016	2017
Success of completed projects	90% 9 of 10	92% 24 of 26	100% 4 of 4	100% 1 of 1	100% 1 of 1	100% 1 of 1	100% 2 of 2	100% 2 of 2	--
Forecast for active projects	--	50% 1 of 2	--	--	--	--	100% 1 of 1	100% 3 of 3	100% 3 of 3
TOTAL All Projects	90% 9 of 10	89% 25 of 28	100% 4 of 4	100% 1 of 1	100% 1 of 1	100% 1 of 1	100% 3 of 3	100% 5 of 5	100% 3 of 3



Successful EM Baselines Result in Savings

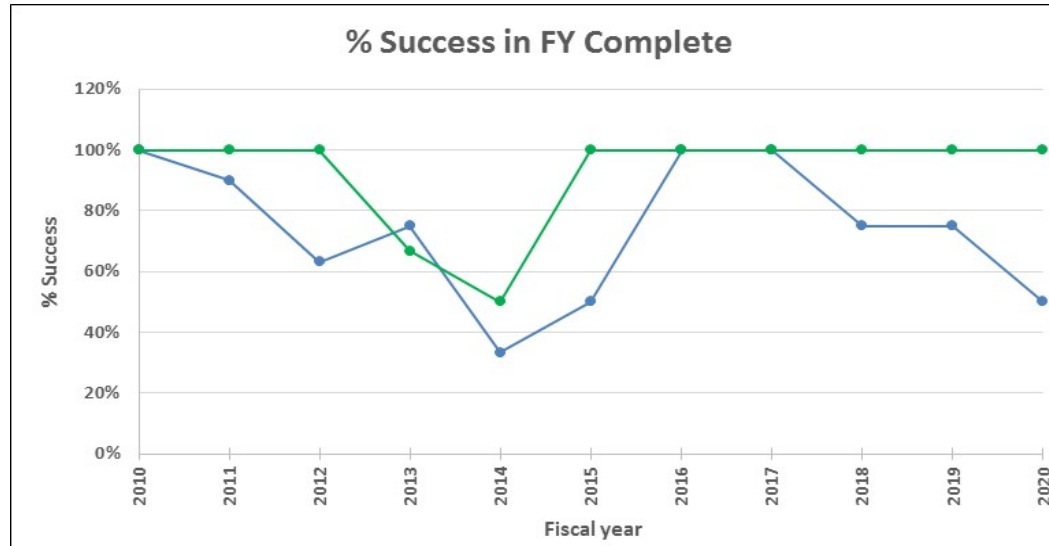
EM Cost Savings (\$M) for projects baselined after fiscal year 2008



Projects baselined after FY 2008 were completed \$465M (18%) below their approved baseline TPC. Adding the forecast for still active projects, the savings are estimated at \$324M (11%).



DOE Metric: EM Project Success by FY Completed



- Project successes plotted by FY completed rather than FY baselined
- Performance much improved for projects baselined after 2008

Blue: all Projects
Green: Projects baselined since 2008

****No projects baselined since 2008 were completed prior to 2010****

Fiscal Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total Projects % Success	100% 5 of 5	90% 27 of 30	63% 12 of 19	75% 3 of 4	33% 1 of 3	50% 1 of 2	100% 1 of 1	100% 4 of 4	75% 3 of 4	75% 3 of 4	50% 1 of 2
Baselined Since 2010 % Success	100% 1 of 1	100% 4 of 4	100% 8 of 8	67% 2 of 3	50% 1 of 2	100% 1 of 1	100% 1 of 1	100% 4 of 4	100% 3 of 3	100% 3 of 3	100% 1 of 1



EM accomplishments



TANK AY-102 emptied



K-731 demolition



SDU-6 Completed construction



ARP IX Completed



FY 17 EM ACCOMPLISHMENTS (Looking back)

- **Project Management Institute (PMI) recognized EM's track record of success.**
 - **At Hanford, recognized the AY-102 tank recovery effort as its international project of the year** after the site completed work ahead of schedule and \$8.7 million under budget.
 - **PMI also recognized the Savannah River Site's successful eighth underground liquid tank waste closure:** PMI honored EM and the SRS liquid waste contractor Savannah River Remediation (SRR) for closure of the 1-million-gallon Tank 12. DOE declared the tank operationally closed in April 2016, about a month ahead of the South Carolina Department of Health and Environmental Control and the U.S. Environmental Protection Agency deadline.
- **Resumed Waste Shipments In April 2017**, after completing the emplacement of TRU waste that had been stored on site at WIPP since 2014, TRU waste generator site shipments to WIPP resumed with a shipment from Idaho. This was an important milestone not only for WIPP, but for all of the DOE sites that have been storing TRU waste since 2014
- **Construction of Accelerated Retrieval Project (ARP) IX was completed in 2017**, and the facility will begin exhuming the last targeted buried waste under the 2008 Record of Decision in the spring 2018.



FY 17 EM ACCOMPLISHMENTS (Looking back)

- **Completed construction of SDU-6 at Savannah River-CD-4**
obtained July 2017 was completed 16 months ahead of schedule and \$25 million under budget. The 32.8 million-gallon SDU will accommodate the larger stream of decontaminated salt solution that will come from SWPF.
- **Completed demolition of K-27: CD-4 was approved in September 2017**, \$35M under budget & 20 months ahead of schedule. **Also K-731 demolition was completed and CD-4 approved in July 2017**, \$8M under budget & 14 months ahead of schedule.
- **LBNL Old Town Project Phase I:** The Old Town team completed the Phase I project by removing the Building 16 and Building 52/52A concrete slabs and associated underground utilities and contaminated soil. Phase II planning continues. CD-4 was approved in August 2017



FY 2018: Big plans

- Complete demolition and backfill of Building H2 at SPRU.
- PFP D&D and demolition projects to be completed
- Plan start of Utility Shaft mining/drilling at WIPP
- Mine 50,000 tons of salt in Panel 8 at WIPP.
- Complete demolition of the Vitrification Facility at West Valley.
- Complete construction of the Low Activity Waste (LAW) Facility at Hanford.
- Continue commissioning activities for Salt Waste Processing Facility (SWPF) startup at Savannah River.



FY 2018: Big plans

- Initiate construction of the Outfall 200 Mercury Treatment Facility at Oak Ridge
- Achieve demolition ready status for the X-326 process building at Portsmouth.
- Complete deactivation of the C-400 Cleaning Building at Paducah.
- Complete demolition of Biology Buildings 9743-2 and 9770-2 at Oak Ridge.
- Issue new EM policy for execution of Capital Asset Projects under \$50M
- Implement new EM Program Peer Review (Review of Segment activities)




EM CLEANUP POLICY



Department of Energy
Washington, DC 20585

JUL 20 2017

MEMORANDUM FOR DISTRIBUTION

FROM: JAMES M. OWENDOFF 
PRINCIPAL DEPUTY ASSISTANT SECRETARY FOR
ENVIRONMENTAL MANAGEMENT

SUBJECT: Requirements for Management of the Office of
Environmental Management's Cleanup Program

The attached policy establishes the requirements for managing the Office of Environmental Management (EM) Cleanup Program. The attached document defines the requirements for organizing, decision making, execution, performance measurement, and reporting. The requirements apply to the entire EM portfolio. Additionally, Line-Item construction projects and certain work activities considered as capital asset projects are governed by Department of Energy Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*. The management approach for the EM Cleanup Program will enhance the engagement of Line Management in assuring the programmatic priorities, resource allocations, and contracting approaches are effectively integrated to meet EM's mission needs.

This policy will be implemented starting on October 1, 2017. Key Decisions 0, 1 and 2 are grandfathered for existing contracts. This document supersedes EM's Operations Activities Policy and Protocol, dated February 28, 2012.

If you have any questions, please contact Mr. Ralph E. Holland, Deputy Assistant Secretary for Acquisition and Project Management, at (202) 586-6382.

Attachment



Printed with soy ink on recycled paper

EM POLICY
Approved: 7/20/2017

REQUIREMENTS FOR MANAGEMENT OF THE OFFICE OF ENVIRONMENTAL MANAGEMENT'S CLEANUP PROGRAM



Office of Environmental Management
U.S. Department of Energy
Washington, DC



GAO ACTIVITIES

- The GAO High Risk List Report of 2017 included DOE EM and NNSA programs for large, complex, projects.
 - Identified areas where DOE has met, partially met, or not met criteria
- EM is working on corrective actions and improvements to address issues identified in the 2017 High Risk List
 - GAO also included issues with EM Operations activities
 - Included environmental liability issues
- GAO will continue to evaluate DOE EM and NNSA



The five criteria:

- 1) Demonstrate strong commitment and leadership
- 2) Demonstrate progress in implementing corrective measures
- 3) Develop a corrective action plan that identifies root causes, effective solutions, and a near-term plan for implementing the solutions
- 4) Have the capacity (people and resources) to resolve the problems
- 5) Monitor and independently validate the effectiveness and sustainability of corrective measures

No.	2007		2009		2011		2013		2015			2017		
	Met	Not Met	Met	Not Met	Met	Not Met	Met	Not Met	Met	Partially Met	Not Met	Met	Partially Met	Not Met
1	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
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	All of DOE		NNSA & EM Only		No change NNSA & EM Only		NNSA & EM >\$750M		No change NNSA & EM >\$750M			No change NNSA & EM >\$750M		



EM actions to address contract management issues

GAO stated “DOE’s record of inadequate management and oversight of its contractors has resulted in the high-risk designation for contract management.”

EM has implemented the following actions to address this finding:

- Required smaller, more manageable scope, to compete in a shorter schedule duration
- Use of more fixed price and cost plus with cap type of contracts
- Increased contractor oversight activities such as through conducting periodic Project Peer Reviews (PPRs), Procurement and Contract Peer Reviews, and holding Quarterly Program Reviews (QPRs)
- Developing and issuing stronger fee award Performance Evaluation and Management Plans (PEMPS) to incentivize strong contractor performance
- Conducting periodic Contractor Performance Assessments and ratings (CPARs)



EM actions to address contract management issues (continued)

- **EM issued a policy in July 2017 pertaining to the EM cleanup activities:**
 - Includes requirements for managing the EM Cleanup Program.
 - Pertains to the entire EM Mission, which includes Capital Asset Projects, as well as non-project activities.
 - Provides an overarching management approach for the EM program, and provides management direction, accountability and thresholds for the program elements.
 - Includes “All scope changes that effect the ability to satisfy the Key Performance Metrics and/or result in schedule delays more than 12 months of the completion date” require approval of the EM-2
- **Performance improvement will be demonstrated through key metrics of capital asset projects and cleanup activities.**



EM Cleanup Policy What Changed?

✓ No longer required

- FY Work Plans

✓ New requirements

- Key Decisions (KDs) for segments (contracts) approved by Program Authority (PA)
- Appointment of Federal Cleanup Directors (FCDs)
- Programmatic Peer Reviews
- Periodic Progress Reviews for segments (e.g., bi-annual reviews) by site with the PA
- Independent review for segment/contractor baseline after true-up (if there are substantive changes from the contractor's proposal and the awarded contract) and for any subsequent baseline changes



EM Cleanup Policy What Changed?

✓ Still required (little or no change)

- DOE O 413.3B requirements for capital projects (including CDs, FPDs, Peer Reviews, QPRs with PMEs)
- Life Cycle baselines/estimates
- Budget process
- Acquisition process and FAR requirements
- Key Performance Metrics (KPM), Corporate Performance Metrics, Enforceable Agreement or other Milestones
- Contractor Performance Baselines (CPB), or alternate performance measurement (e.g., fixed price contracts)
- EVMS where required by contract, or alternate
- Contractor Monthly Reports
- PARS II, IPABS, STARS data maintained at sub-PBS level
- Monthly Field Managers meetings with EM-3