



U.S. DEPARTMENT OF **ENERGY**

**Environmental Management
Office of River Protection**

FY 2012 Budget Briefing



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

www.em.doe.gov

Environmental Management: A National Responsibility

- ✓ 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 Federal obligation to address the cold war environmental legacy cleanup and honor our regulatory commitments
- ✓ 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
- ✓ This brief will address the fiscal year 2012 planned accomplishments for Hanford's tank waste cleanup mission



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Office of River Protection – FY12 Allocation of EM Cleanup Funding

\$ in thousands

PBS	PBS Title	FY10 Appropriation	FY11 Appropriation	FY12 Request	FY12 Appropriation
ORP-0014	Radioactive Liquid Tank Waste Stabilization and Disposition	406,600	396,900	521,391	445,000
ORP-0060	Major Construction - Waste Treatment Plant	690,000	738,698	840,000	740,000
Total - ORP	Office Total	1,096,600	1,135,598	1,361,391	1,185,000



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FY 2012 Planned Tank Farm Accomplishments

Base Operations

- Double-shell/Single-shell (DST/SST) operations, surveillance, monitoring and maintenance
- Conduct 6 DST to DST transfers
- Tank waste sampling analysis
- 222-S Laboratory operations and maintenance
- 242-A Evaporator operations and preventative maintenance
- Safe Management of Tank Farms Facilities

Tank Farms/ WTP Integration

- One System Organization Implementation



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FY 2012 Planned Tank Farm Accomplishments (continued)

Tank Retrieval

- Complete Bulk Retrieval from two C Farm Single-Shell Tanks
- Complete Hard heel Removal from four C Farm Single-Shell Tanks
- Complete design and procurement activities for the next three C Farm Single-Shell Tanks
- Complete Installation of MARS riser in Tank C-105

Technology and Development

- Continue technology development activities to support tank waste mixing

Conceptual Design

- Complete Critical Decision-1 documentation for the Interim Hanford Storage Facility.
- Complete Critical Decision-1 documentation for the Secondary Waste Treatment/Effluent Treatment Facility.

Waste Feed Delivery

- Initiate AY and AZ Farm Feed Delivery System including design and procurement
- Perform Encasement Pressure Checks and Pit Inspections for transfer line integrity



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FY 2012 Planned WTP Accomplishments

Low Activity Waste, Analytical Laboratory, and Balance of Facilities

Design Activities

- Complete Low Activity Waste Facility pipe confirmed stress/support final calculations.
- Issue design for construction the Balance of Facilities Emergency Diesel Generator facility base mat foundation.
- Complete Low Activity Waste Facility Control and Instrumentation Design.
- Complete Low Activity Waste Facility Heating, Ventilation and Air-Conditioning Design.
- Complete Analytical Laboratory Electrical Design.
- Complete detailed piping design for Balance of Facilities Emergency Diesel Generator.

Procurement Activities

- Receive the Low Activity Waste Facility off gas caustic scrubber.
- Receive the Low Activity Waste Facility exhausters.
- Receive the Low Activity Waste Facility thermal catalytic oxidizer.
- Receive Analytical Laboratory High-Efficiency Particulate Air filter housings.
- Receive Balance of Facilities Pressure Regulators.



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FY 2012 Planned WTP Accomplishments

Low Activity Waste, Analytical Laboratory, and Balance of Facilities

Construction Activities

- Complete approximately 90% of the Low Activity Waste Facility bulk process pipe installation.
- Complete rough setting the Low Activity Waste Facility off gas caustic scrubber and the catalytic oxidizer.
- Analytical Laboratory – Set C5 Main Crane.
- Complete construction of the Balance of Facilities Glass Former Storage Facility.
- Complete construction of the Balance of Facilities Steam Plant.
- Complete construction of the Chiller Compressor Plant.

Startup Activities

- Startup and introduce power to the Waste Treatment and Immobilization Plant via the main switchgear building.
- Complete all detailed planning for the Balance of Facilities (Water, Steam and Air group).



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FY 2012 Planned WTP Accomplishments

High-Level Waste Facility

Design Activities

- Complete High-Level Waste Facility architectural design.

Procurement Activities

- Receive Feed & Feed Preparation Vessels for Melter Caves 1 & 2.
- Receive Melter 1 & 2 Feed & Feed Preparation Vessel mechanical agitators.

Construction Activities

- Complete forming, rebar, and placement of concrete for 64 High-Level Waste Facility walls and slabs on the third to fourth stories for a total of 7,300 cubic yards of concrete.
- Install the High-Level Waste Facility remote change air filter housings in the filter cave.
- Complete High-Level Waste Facility slab placements for the third story.
- Complete Annex Building weathering.
- Complete Structural Steel to the third floor (El. +37').
- Set Offgas Catalytic Oxidizers and Offgas Carbon Absorber.

Startup Activities

- Commissioning and startup procedural development.

Training procedure development.



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FY 2012 Planned WTP Accomplishments

Pretreatment Facility

Design Activities

- Continue re-analysis and design of Pretreatment process vessels.
- Substantially complete quantitative risk analysis for Hydrogen in Piping and Ancillary Vessels.

Procurement Activities:

- Continue or complete fabrication of process vessels.

Construction Activities

- Continue to install two pipe modules and two process vessels.
- Continue with limited civil construction activities

Startup Activities

- Commissioning and startup procedural development.
- Training procedure development.



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ORP is a Sound Investment

- ✓ We are demonstrating visible progress
- ✓ Implementing the One System organization to drive integration is key to successful tank waste cleanup
- ✓ Resources are limited and will be influenced to a greater extent by national priorities, requiring:
 - ✓ Consensus
 - ✓ Execution
 - ✓ Opportunities
- ✓ Collaboration with our regulators will be vital for the alignment of priorities and project success

