



# U.S. DEPARTMENT OF **ENERGY**

*Environmental Management  
Office of River Protection*

## *FY 2011 Briefing*

*May 26, 2011*



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safety ♦ performance ♦ cleanup ♦ closure

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# *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
- ✓ Our Budget Brief will address Fiscal Year 2011, which address compliance needs for Hanford's tank waste cleanup mission



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2

# Office of River Protection 2016 Cleanup Vision

## ***Transition from a waste storage to a waste treatment and immobilization mission of Hanford's 56 million gallons of tank waste by 2016***

- ✓ Deliver on regulatory commitments to the State of Washington and protect the Columbia River:
  - ✓ Complete construction of the Waste Treatment Plant: Complete the construction of the Waste Treatment Plant project and pivot the project from design/construction to commissioning/operations
  - ✓ Empty all 16 Single-Shell Tanks in C-Farm
  - ✓ Prepare Hanford's tank farm feed/delivery systems: Transfer waste feed to the Waste Treatment Plant when it becomes operational
- ✓ Turnover and commission 16 of 18 Waste Treatment Plant facilities: Commission the Laboratory, Low Activity Waste Facility, and Balance of Facilities to accelerate the treatment and immobilization of Hanford tank waste by 3 years
- ✓ Develop and deploy transformational technologies for supplemental treatment, secondary waste, retrievals and waste delivery



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3

# Office of River Protection – Fiscal Year 2011 Allocation of EM Cleanup Funding

*\$ in thousands*

PBS	PBS Title	FY09 Appropriation	FY10 Appropriation	FY11 Appropriation
ORP-0014	Radioactive Liquid Tank Waste Stabilization and Disposition	319,943	406,600	396,900
ORP-0060	Major Constructon - Waste Treatment Plan	690,000	690,000	738,698
<b>Total - ORP</b>	<b>Office Total</b>	<b>1,009,943</b>	<b>1,096,600</b>	<b>1,135,598</b>



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# *FY 2011 Planned Tank Farm Accomplishments*

## **Base Operations**

- DST/SST operations, surveillance, monitoring and maintenance
- 222-S Laboratory operations and upgrades
- Conduct 242-A Evaporator upgrades
- Conduct 7 DST to DST transfers
- Tank sampling and analysis
- Conduct DST ultrasonic testing and DST system integrity program
- Continue to perform SST Integrity evaluations and implement expert panel
- Complete design of SX Interim Barrier
- Continue removal of Hose-in Hose Transfer Lines
- Facility Management
- Business Services
- Site Services
- Pension



# *FY 2011 Planned Accomplishments*

## *Tank Farms*

### Tank Retrieval

- Complete retrieval of two C-Farm Single-Shell Tanks
- Initiate design and procurement activities to retrieve the next two C Farm Single-Shell Tanks
- Continue to perform single-shell tank integrity evaluations and implement expert panel recommendations
- Initiate C-301 Catch Tank Remediation

### Technology and Development

- Continue Immobilized Low-Activity Waste Glass Testing
- Initiate C Farm Closure Demonstration Project
- Complete Wiped Film Evaporator design, system assembly and integrated acceptance testing



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# *FY 2011 Planned Accomplishments*

## *Tank Farms (cont')*

### Conceptual Design

- Obtain CD-0 approval for Supplemental Treatment, Interim Hanford Storage , and Secondary Waste Treatment Project and initiate alternative analysis

### Waste Feed Delivery

- Initiate AW and AZ Farm Feed Delivery System including design and procurement
- AY/AZ Ventilation Upgrade Design, Procurement, Construction, Startup & Readiness
- Complete SY Transfer line installation
- Initiate SY 102 Feed Delivery System including design and procurement



# *FY 2011 Planned WTP Accomplishments*

## **Low-Activity Waste Facility**

- Receive two 125 ton vitrification melters.
- Receive the Automatic Sampling System.
- Accept HEPA pre-heaters.
- Complete 80 percent of bulk process piping installation and 65 percent of bulk conduit installation.
- Received offgas mercury adsorber (carbon bed adsorber).

## **Analytical Laboratory Facility**

- Award the Architectural Specialties and high priority Construction Subcontracts.
- Complete installation of the auto sampling system.
- Complete 90 percent of bulk piping installation.
- Complete 70 percent of bulk conduit installation.

## **Balance of Facilities**

- Accept delivery of the Anhydrous Ammonia System.
- Receive Carbon Dioxide Storage Vessel.
- Complete construction of the Water Treatment Building.
- Award purchase order of two 5 MW emergency diesel generators.



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# *FY 2011 Planned WTP Accomplishments (continued)*

## **High-Level Waste Facility**

- Complete civil engineering design (Title II) and Architectural design.
- Receive High-Level Waste Melters, HEPA filter housings, Canister Decontamination Vessels, and Plant Wash and Drain Vessel from suppliers.
- Set HEPA filter housings in Filter Cave.
- Place 7,100 cubic yards of concrete, 77 percent complete.
- Install 781 tons of structural steel, 24 percent complete.
- Install 8,400 linear feet of piping, 14 percent complete.
- Install 132,000 pounds of HVAC ducting, 20 percent complete.
- Install 3,000 linear feet of conduit, 15 percent complete.
- Install 3,950 linear feet of cable tray, 20 percent complete.

## **Pretreatment Facility**

- Install 30-ton Hot cell crane.
- Install 2 hot cell shield doors.
- Place 6,500 cubic yards of concrete, 86 percent complete.
- Install 1,000 tons of structural steel, 40 percent complete.
- Install 85,000 linear feet of piping, 24 percent complete.
- Install 100,000 pounds of HVAC ducting, 15 percent complete.
- Install 7,000 linear feet of cable tray, 24 percent complete.



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## *ORP is a Sound Investment*

- ✓ We are demonstrating visible progress; improving trends in project, operations and safety
- ✓ Meeting regulatory commitments and protecting the Columbia River are vital, urgent and a federal obligation
- ✓ Resources are limited and will be influenced to a greater extent by national priorities, requiring:
  - ✓ Consensus
  - ✓ Execution
  - ✓ Opportunities
- ✓ Continued integration is key to successful tank waste cleanup
- ✓ Collaboration with our regulators will add to project success

