

*Environmental Management  
Office of River Protection*  
**FY 2013 President's Budget  
FY 2014 Budget Request**



**U.S. Department of Energy**

**March 15, 2012**

# EM Mission

March 2012

FY 2013 and 2014 Regulatory Briefing - Office of River Protection

**“Complete the safe cleanup of the environmental legacy brought about from five decades of nuclear weapons development, production, and Government-sponsored nuclear energy research”**



- ***From a legacy of weapons production to the world’s largest environmental cleanup program***
- ***Operating in the world’s most complex regulatory environment***
- ***EM clean-up enables DOE to maintain ongoing operations and other critical missions (NNSA/SC) while achieving compliance with governing environmental laws***

# The EM Vision

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## 30 Years of Progress



1989: Start of  
EM Cleanup  
107 sites  
3,125 Sq. Miles  
35 states



End of FY 2011  
17 sites  
318 Sq. Miles  
11 states

## Challenges Ahead

- *The program's toughest challenges are still ahead, including processing liquid tank waste and deactivating and decommissioning a large number of facilities.*
- *These challenges require innovative technical solutions and scientific approaches*

# EM Program Priorities

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Maintain a safe, secure, and compliant posture in the EM complex

- Radioactive tank waste stabilization, treatment, and disposal
- Spent (used) nuclear fuel storage, receipt, and disposition
- Special nuclear material consolidation, processing, and disposition
- Transuranic and mixed/low-level waste disposition
- Soil and groundwater remediation
- Excess facilities deactivation and decommissioning (D&D)

# EM's Approach to a National Responsibility

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- **Conduct quality work in a safe and secure manner while protecting workers, communities and the environment**
- **Perform strategic reviews of site cleanup approaches to ensure maximum return on taxpayer investment**
- **Focus technology development and deployment investments on near-term solutions to address our most challenging problems**
- **Prioritize work based on risk and compliance**
- **Improve contract and project management**



# ORP Profile

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\*\*\* \$ in 000's throughout presentation \*\*\*

PBS	PBS Title	FY 2012 Appropriation	FY 2013 President's Budget
ORP-0014	Radioactive Liquid Tank Waste Stabilization and Disposition	\$441,800	\$482,113
<b>Subtotal</b>	<b>Radioactive Liquid Tank Waste Stabilization and Disposition</b>	<b>\$441,800</b>	<b>\$482,113</b>
ORP-0060	Major construction - Waste Treatment Plant	\$740,000	\$690,000
<b>Subtotal</b>	<b>Major construction - Waste Treatment Plant</b>	<b>\$740,000</b>	<b>\$690,000</b>
<b>Total - ORP</b>	<b>Office of River Protection Funding Summary</b>	<b>\$1,181,800</b>	<b>\$1,172,113</b>

*\*The WTP Baseline anticipated \$840M for FY12, \$970M for FY13, and \$890M for FY14. Based on the FY12 Appropriations and the FY13 Presidents budget request this funding profile is no longer viable. The WTP Project is currently preparing a baseline change proposal based on a \$690M flat funded profile.*

# Tank Farm FY 2013 Planned Accomplishments

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## Base Operations

- DST/SST operations, surveillance, monitoring and maintenance
- 222-S Laboratory operations and upgrades
- Conduct 242-A Evaporator campaign and upgrades
- Conduct DST to DST transfers
- Perform SST Integrity evaluations
- Continue removal of Hose-in Hose Transfer Lines
- Facility Management, Business and Site services
- WTP Electricity
- Pension
- Site Services

# Tank Farm FY 2013 Planned Accomplishments

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## **Tank Retrieval and Closure**

- Conduct Retrieval activities for C Farm Single-Shell Tanks
- Conduct SX Interim Measures/Barrier

## **Tank Farms/WTP Integration**

- Execution of the One System implementation

## **Projects**

- Continue design and procurement activities of the AY and AZ Farm Ventilation System Upgrades
- Continue Technology Development activities to support Mixing and Sampling
- Conduct Technology Development to Support a Supplemental Treatment Decision

# WTP FY 2013 Planned Accomplishments

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## Resolution of Technical Issues

### Low Activity Waste, Analytical Laboratory, and Balance of Facilities

- Complete construction of Steam Plant
- Analytical Lab construction substantially complete
- Startup and introduce power to the Waste Treatment and Immobilization Plant via the Main Switchgear Building
- Turnover from construction to the startup organization ten Balance of Facilities buildings:
  - Non-Dangerous, Non-Radioactive Effluent Facility
  - Fire Water Pump House
  - Glass Former Storage Facility
  - Fuel Oil Facility
  - Chiller-Compressor Plant
  - Water Treatment Building
  - Balance of Facilities Switchgear Building
  - Cooling Tower Facility
  - Anhydrous Ammonia Facility
  - Standby Diesel Generator Facility

### High-Level Waste Facility

- Continue engineering and design efforts

### Pretreatment Facility

- Continue engineering and design efforts

# FY14 Budget Request

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- Planned accomplishments are based on target funding case.
- Office of River Protection will include estimated funding levels required to achieve full compliance with the TPA, in the budget request.

# NEXT 10 YEAR CLEANUP PRIORITIES

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- Base Operations
- Pretreatment Technical Issues (*DNFSB2010-2*)
- Interim Measures - SX
- LAW-LAB-BOF
- Supplemental Treatment Decisions
- C Farm Retrievals
- Glass as soon as possible
- Secondary Waste Treatment
- HLW / IHSF (*HLW Storage*)
- Pretreatment / Waste Feed Delivery
- Tank Closure (*WMA C*) Decisions
- Supplemental Treatment CD1
- Next 9 Tanks Retrieval
- Interim Barriers (*near-term risk*)
- Supplemental Treatment CD2
- Supplemental Treatment Construction
- Tank Closure

# Tank Farm FY 2014 Planned Accomplishments

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## Base Operations

- DST/SST operations, surveillance, monitoring and maintenance
- 222-S Laboratory operations and upgrades
- Conduct 242-A Evaporator campaign and upgrades
- Conduct DST to DST transfers
- Perform SST Integrity evaluations
- Continue removal of Hose-in Hose Transfer Lines
- Facility Management, Business and Site services
- WTP Electricity
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**242-A Evaporator Facility**

# Tank Farm FY 2014 Planned Accomplishments

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## Tank Retrieval and Closure

- Complete Retrieval activities for C Farm Single-Shell Tanks

## Tank Farms/WTP Integration

- Continue to execute the One System implementation

## Projects

- Continue AY and AZ Farm Ventilation System Upgrades
- Continue Technology Development activities to support Mixing and Sampling
- Continue activities to Support a Supplemental Treatment Decision



*New Equipment Being Installed  
in Tank C-104 for Waste Retrieval*



*AP/SY Ventilation Upgrades*

# WTP FY 2014 Planned Accomplishments

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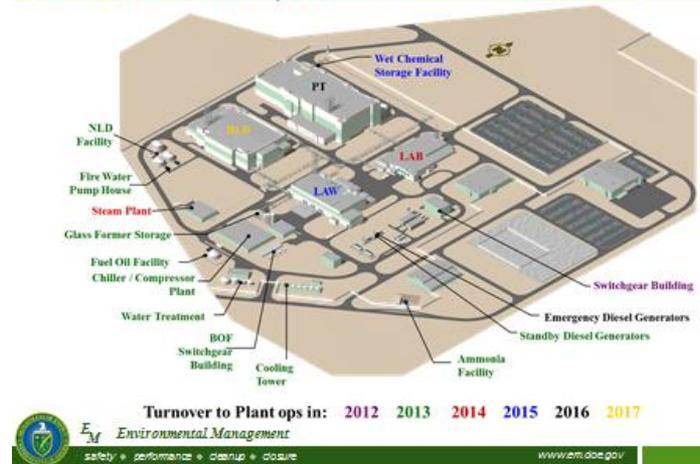
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## Resolution of Technical Issues

### Low Activity Waste, Analytical Laboratory, and Balance of Facilities

- Turnover LAB and Steam Plant to Operations
- Operations
  - Non-Dangerous, Non-Radioactive Effluent
  - Fire Water Pump House
  - Glass Former Storage Facility
  - Fuel Oil Facility
  - Chiller-Compressor Plant
  - Water Treatment Building
  - Balance of Facilities Switchgear Building
  - Cooling Tower Facility
  - Anhydrous Ammonia Facility
  - Standby Diesel Generator Facility

*Pivot is Starting:  
Turnover to Plant Operations*



### High-Level Waste Facility

- Continue engineering and design efforts

### Pretreatment Facility

- Continue engineering and design efforts

# Maintaining the Hanford Site Vision

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- FY 2013 Presidents budget request was less than the baseline requirements, but we are working hard to maintain our progress through focused priorities and incorporation of efficiencies in our approach.
- We are committed to maintaining worker and public safety.
- Protecting the Columbia River is vital, urgent and our obligation to the people of the Pacific Northwest.
- ORP and RL are committed to continued progress at the Hanford Site in dealing with the largest environmental liability in the EM cleanup program.
- Thank you for your input to our priorities