

# Site Operations Overview

## The U.S. Department of Energy Environmental Management (EM) Program



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# EM Cleanup Snapshot

**114** Sites

**31** States

**2,000,000** Acres

**\$6,200,000,000** Program cost: Fiscal Year (FY) 2004

**34,200** Workforce (federal and contractor)

**#1** World's largest cleanup program

**20,000** Canisters of high-level waste

**142,000** Cubic meters of transuranic waste

**1,200,000** Cubic meters of low-level/mixed low-level waste

**2,500** Metric tons of heavy metal (MTHM)

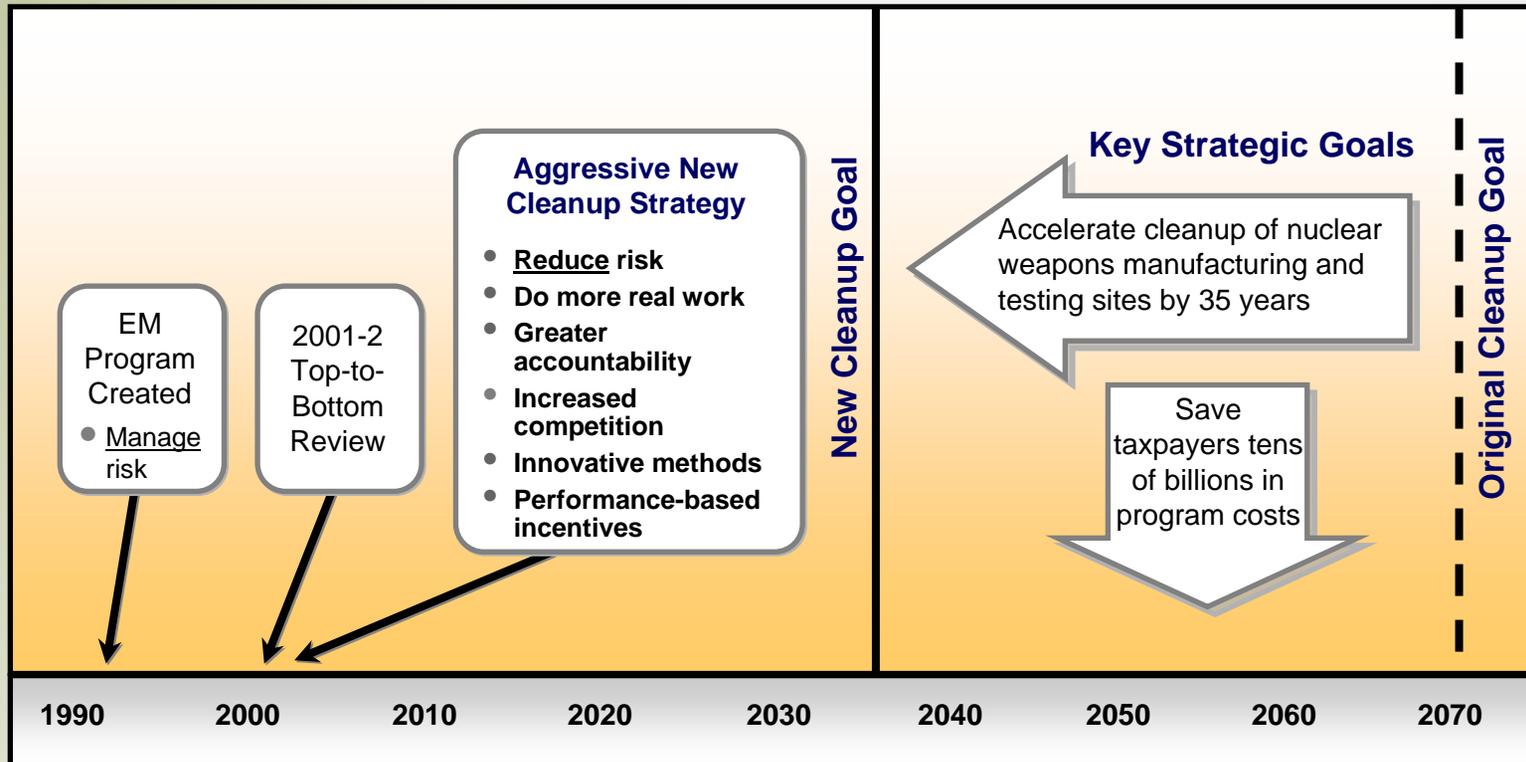
**79,000,000** Cubic meters of contaminated solid media

**1,800,000,000** Cubic meters of contaminated water

**4,500** Surplus facilities



# Evolving EM Approach



# We have made tremendous progress since 2001 . . .

- Keeping Rocky Flats, Mound and Fernald sites on track to close in 2006
- Consolidated nuclear materials:
  - Removed all usable special nuclear material (SNM) from Rocky Flats
  - Stabilized and packaged all plutonium and residues at Hanford
  - Removed all Pu-238 from Mound
  - De-inventoried 6 Spent Nuclear Fuel (SNF) pools
  - Removed all SNF from West Valley
  - Completed shipment of Oak Ridge SNF to Idaho
  - Removed all SNM source term from F-Canyon at Savannah River
  - Removed all SNF from K-basins at Hanford
- Demolished more than 600 buildings

## FY01-04 Performance

*6,100 containers* Plutonium metal or oxide packaged for long-term storage

*42,000 kilograms* Bulk plutonium or uranium residues packaged for disposition

*2,100 metric tons of heavy metal (equiv.)* SNF packaged for disposition



# . . . in both cleanup and disposal . . .

- **Reduced amount of liquid waste:**
  - Completed emptying pillar and panel tanks at Idaho and cleaned 2 waste tanks
  - Removed pumpable liquids in single shell tanks at Office of River Protection and completed waste removal from Tank C-106
  - Eliminated more than 2.5 million gallons of liquid waste
- **Getting waste to disposal facilities quickly:**
  - Completed more than 3,800 transuranic (TRU) waste shipments since opening of the Waste Isolation Pilot Plant (WIPP)
  - Removed all TRU waste from 10 sites

## **FY01-04 Performance**

*18,000 cubic meters*

TRU waste shipped to WIPP for disposal

*490,000 cubic meters*

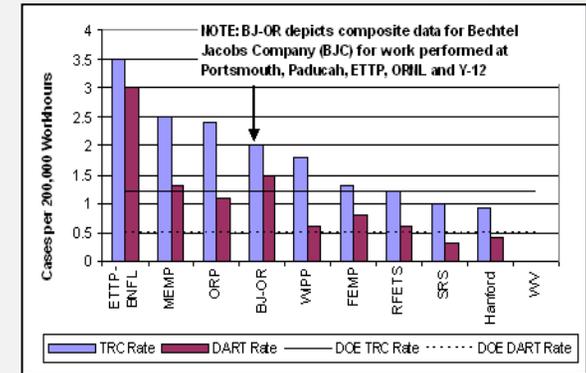
LLW and MLLW disposed



**. . . while significantly improving our safety performance.**

## ***Reduced worker risk by:***

- **Stabilizing, packaging, and consolidating nuclear materials**
- **Eliminating liquid waste**
- **Closing SNF basins**
- **Shipping radioactive waste to disposal sites**
- **Continually evaluating and enhancing worker safety programs through programs such as the Voluntary Protection Program and Integrated Safety Management**



# We attained a major cleanup milestone at Rocky Flats this year . . .

April 19, 2005

## Final Transuranic Waste Shipment Leaves Rocky Flats

**Cleanup Ahead of Schedule, On Track to Save Taxpayers Billions**

**GOLDEN, CO.** – A major environmental victory was achieved at the Rocky Flats Site in Golden, Colo., today when the final remaining shipment of radioactive, transuranic (TRU) waste left the property on a truck bound for an underground waste repository in New Mexico. This major milestone is another step toward the final conversion of the site to a National Wildlife Refuge managed by the U.S. Fish and Wildlife Service.

Then . . .



. . . Now



**2,045 TRU waste shipments from Rocky Flats completed**



# ... supported by strong performance from WIPP and the National TRU Waste Program.

**6.5** Years of operation

**3,800** TRU waste shipments received at WIPP

**4.0** Million loaded miles traveled

**30,600** Cubic meters of waste disposed at WIPP

**70,000** Containers disposed at WIPP

**10** DOE legacy TRU waste sites cleaned up



# We have much left to do . . .

## *Complete cleanup of remaining sites*

- **2006:** Rocky Flats, Fernald and Mound
- **2008:** East Tennessee Technology Park
- **2012:** Hanford River Corridor Project
- **2020:** SRS Waste tanks
- **2025:** Complete cleanup of 108 of 114 sites
- **2035:** Complete cleanup of all sites

*As of September 2004, the cleanup of 38 of 114 sites remain to be completed.*



*Complete disposal of all legacy TRU waste at WIPP, including remote-handled waste*



# . . . But, we are confident that we can sustain our momentum by . . .



Regulatory Relief



Innovation



Effective Communication

- Resolving legal/regulatory issues preventing closure of liquid waste tanks and other cleanup activities
- Achieving sustained TRU waste retrieval, characterization and shipping performance at Idaho National Laboratory and Los Alamos National Laboratory
- Obtaining regulatory approval of federally mandated changes to waste confirmation requirements in a timely manner
- Doing more with the resources we have through process improvement, innovation, expanded competition, effective project management, and high standards/accountability
- Maintaining effective two-way communication with our stakeholders
- Continuing to operate in a safe, secure, and compliant manner

