EM Mission

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

- Largest environmental cleanup effort in the world, originally involving two million acres at 108 sites in 35 states
- Safely performing work
  - In challenging environments
  - Involving some of the most dangerous materials known to man
  - Solving highly complex technical problems with first-of-a-kind technologies
- Operating in the world’s most complex regulatory environment
- Supporting other continuing DOE missions and stakeholder partnerships
Program Priorities

- Essential activities to maintain a safe and secure posture in the EM complex
- Radioactive tank waste stabilization, treatment, and disposal
- Spent nuclear fuel storage, receipt, and disposition
- Special nuclear material consolidation, stabilization, and disposition
- High priority groundwater remediation
- Transuranic (TRU) and mixed/low-level waste disposition
- Soil and groundwater remediation
- Excess facilities deactivation and decommissioning (D&D)

Goal Attainment

Sound business practices
- Near term completions
- Footprint reduction

Use science and technology to optimize the efficiency of tank waste disposition

Use science and technology to optimize the efficiency of excess nuclear materials, and spent nuclear fuel disposition

Alternative management approaches such as the Energy Parks Initiative
**Footprint Reduction**

- **Recovery Act**
- **Office of Environmental Management (EM)**
- **EM Footprint Reduction, small site completions, and other investment opportunities**
  - Jobs created
  - Lifecycle cost reduced
  - Environment protected
  - Footprint reduced

*Clean, Diverse Energy Sources*:
- Energy security
- Establish long-term site mission
- Sustainable jobs

*Large tracts of land and infrastructure available*

**Footprint Reduction – Hanford Site**

- Reduces environmental risk with large return on investment
- Results in roughly 90 percent reduction of the site footprint

- Accelerate River Corridor cleanup
- Complete D&D of the plutonium finishing plant

**Today**

**2015**

Remaining Completions in 2015

75 square miles
Small Site Near-Term Completion

Sites with Active EM Programs in 2008

Sites with Active EM Programs in 2015

Cleanup activities at 22 sites in 14 states – to 10 sites in 10 states
Reduce EM footprint from 900 square miles to 135 square miles
Significant reduction in life-cycle cost

Reutilization of Assets/Energy Parks

- Energy Parks Initiative (EPI) will convert EM liabilities (contaminated sites, facilities, and materials) into assets to solve critical national energy issues
- EPI can demonstrate effective partnering of DOE, other Federal agencies, private industry, state and local governments, and local communities
- EPI can preserve and enhance economies of state and local host communities of DOE/EM sites with energy reindustrialization

EM's unique resources can be leveraged to address some of the Nation's energy security and climate change concerns
American Recovery and Reinvestment Act

- $6 billion in Recovery Act funding
- Scope that can most readily be accelerated
  - Soil and groundwater remediation
  - Radioactive solid waste disposition
  - Facility decontamination & decommissioning
- “Shovel Ready”
  - Fully defined cost, scope and schedule
  - Established regulatory framework
  - Proven technology
  - Proven performance
  - Existing contract vehicles
- Focus on EM completion and footprint reduction
- Recovery Act funding will accelerate approximately 70 compliance milestones

$6 Billion—
Where Is the Money Going
($ in thousands)

12 States, 17 Sites
Uranium/Thorium $69 million
Management & Oversight $70 million
**Project Management—Oversight & Accountability**

Safety is the #1 priority for all EM Recovery Act projects.

- Fully implement DOE Order 413.3A
- Phased release of funding based on performance
  - Integrates project, contract and funds management
- Ensure projects stay on schedule and within cost
- Conduct regular reviews to track and monitor performance
- On-site Headquarters representatives will closely observe project performance
- Maintain regular communications with regulators, Tribal Nations and stakeholders
- External oversight reviews by the IG and GAO

Safety is the #1 priority for all EM Recovery Act projects.

**American Recovery: The First 100 Days “Up and Running...”**

**Washington State (Hanford)**

- Accelerating retrieval of transuranic waste drums and trench boxes
- Excavated 124,000 of 375,000 cubic yards of dirt to increase capacity of the Environmental Restoration Disposal Facility
- Groundwater projects expansion underway

Retrieval of waste drums at Hanford contain low-level, mixed low-level, and TRU waste.

The first trainload of uranium tailings left Moab on April 20, marking the beginning of a massive cleanup effort.

**Utah (Moab Mill Tailings Site)**

- Relocation of the world’s largest uranium mill tailings pile (16 million tons) has begun
South Carolina (Savannah River Site)
- First 2 Remote-Handled transuranic (TRU) waste shipments prepared for transport
- Achieved 1,000th shipment milestone for TRU waste to the Waste Isolation Pilot Plant

Tennessee (Oak Ridge)
- Started training 2nd shift TRU operations
- Began clean up of Y-12 scrap yard

Idaho (Idaho National Lab)
- Accelerated shipment of mixed low-level waste from Advanced Mixed Waste Treatment Plant
- 3000-sq ft High Integrity Container (HIC) enclosure dismantled and disposed

Monthly Metrics for Recovery Act Projects

<table>
<thead>
<tr>
<th>Metrics</th>
<th>Target for Completion in Sept 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jobs Saved and Created</td>
<td>13,000 jobs</td>
</tr>
<tr>
<td>CH TRU Removed from Site</td>
<td>4,600 m³</td>
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<tr>
<td>RH TRU Removed from Site</td>
<td>25 m³</td>
</tr>
<tr>
<td>Area of Buildings Demolished</td>
<td>3,240,000 ft²</td>
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<tr>
<td>Number of Buildings Demolished</td>
<td>238</td>
</tr>
<tr>
<td>LLW Disposed</td>
<td>26,800 m³</td>
</tr>
<tr>
<td>Contaminated Soil Removed</td>
<td>55,000 yd³</td>
</tr>
<tr>
<td>Number of Waste Sites Remediated</td>
<td>82</td>
</tr>
<tr>
<td>Tailings Disposed</td>
<td>1.9 million tons</td>
</tr>
</tbody>
</table>

Preliminary targets based on information provided by sites in the Project Operating Plans.
More than 3,700 Jobs Created and Saved Nationwide

<table>
<thead>
<tr>
<th>Location</th>
<th>Applicants</th>
<th>New Jobs</th>
<th>Saved Jobs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argonne (IL)</td>
<td>TBD</td>
<td>15</td>
<td>4</td>
<td>19</td>
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<tr>
<td>Brookhaven (NY)</td>
<td>TBD</td>
<td>34</td>
<td>45</td>
<td>79</td>
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<tr>
<td>ETEC (CA)</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>Hanford-ORP (WA)</td>
<td>6,393</td>
<td>150</td>
<td>56</td>
<td>206</td>
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<tr>
<td>Hanford-Richland (WA)</td>
<td>9,960</td>
<td>775</td>
<td>300</td>
<td>1,075</td>
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<tr>
<td>Idaho (ID)</td>
<td>4,567</td>
<td>168</td>
<td>240</td>
<td>408</td>
</tr>
<tr>
<td>Moab (UT)</td>
<td>1,747</td>
<td>42</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>Nevada (NV)</td>
<td>21</td>
<td>9</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>Oak Ridge (TN)</td>
<td>6,266</td>
<td>261</td>
<td>6</td>
<td>267</td>
</tr>
<tr>
<td>Paducah (KY)</td>
<td>1,186</td>
<td>15</td>
<td>0</td>
<td>15</td>
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<tr>
<td>Portsmouth (OH)</td>
<td>1,370</td>
<td>42</td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td>Savannah River (SC)</td>
<td>10,306</td>
<td>612</td>
<td>798</td>
<td>1,410</td>
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<tr>
<td>SLAC (CA)</td>
<td>85</td>
<td>1</td>
<td>19</td>
<td>20</td>
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<tr>
<td>West Valley (NY)</td>
<td>1,128</td>
<td>71</td>
<td>0</td>
<td>71</td>
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<tr>
<td>WIPP (NM)</td>
<td>79</td>
<td>43</td>
<td>10</td>
<td>53</td>
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<tr>
<td><strong>TOTALS</strong></td>
<td>43,057</td>
<td>2,239</td>
<td>1,494</td>
<td>3,733</td>
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</tbody>
</table>

Cleanup Work Requires All Types of Skills

**DOE Headquarters**
- Project Managers
- Contracting Specialists
- Project Engineers
- Chemical Engineers
- Safety and Quality Assurance Specialists
- Budget
- Administrative Assistants
- Strategic Planners

**Site Field Offices**
- Project Managers
- Cost Estimators
- Schedulers
- Construction Engineers
- Heavy Equipment Operators
- Radiological Technologists
- Nuclear Safety Engineers
- Quality Assurance/Quality Control Engineers
- Truck Drivers
- Health Physics Technicians
- Earth Drillers
- Environmental Engineers
- Nuclear Waste Processing Operators
- Geologists

Heavy equipment operators remove stockpile dirt to further develop the Environmental Restoration Disposal Facility at the Hanford Site in Richland, Washington.
Small Business Strategy

- Ambitious goals to maximize inclusion of:
  - Small Business
  - Small Disadvantaged Business
  - Woman-owned Small Business
  - HUB-Zone Small Business
  - Service-Disabled Veteran-Owned Small Business

Recovery Act Summary

- EM Recovery Act up and running
- Thousands of jobs created and preserved
- Nearly all funds allocated to sites
- Billions of dollars obligated to contracts
- Project management systems are in place
- Negotiating contract modifications
- Monitoring project execution and performance
- Continuous engagement with stakeholders and regulators
Find Out More

EM Recovery Act Program Office

Website
www.em.doe.gov/emrecovery

Email
emrecovery@em.doe.gov

Phone
202-586-2083

DOE Recovery Act Clearinghouse

Website
RecoveryClearinghouse.energy.gov

Email
RecoveryClearinghouse@hq.doe.gov

Phone
1-888-DOE-RCVY

Graduating Students and New Engineers Opportunities at DOE

Dr. Inés R. Triay
Assistant Secretary for Environmental Management

Cynthia V. Anderson
EM Recovery Act Program Manager
**DOE-EM Workforce Challenges**

- Aging workforce
- Continued growth in mission-related work
- Filling gaps in different technical and functional disciplines
- Recruiting and retaining expertise at certain locations

**Talent Acquisition Vision**

To execute a recruitment strategy that utilizes a diverse assortment of federal recruitment tools and hiring authorities that allows for maximum management flexibility and discretion when laying EM’s “pipeline” of future talent/leadership and creating longest term possible opportunities for the transfer of knowledge as we build and sustain a “best in class” workforce.
DOE Opportunities

- EM Professional Development Corps
- Student employment programs
  - Student Career Experience Program
  - Student Temporary Employment Program
  - DOE Scholars Program
  - DOE Minority Education Institution Student Program
  - Student Volunteer Program

EM Professional Development Corps

- Mentoring Program
  - Structured two-year developmental program
  - On-the-job-training
  - Formal classroom instruction

- Rotational assignments
  - EM Headquarters
  - EM field and DOE sites
  - DOE laboratories
  - Other DOE offices
  - DOE contractors

- Opportunity for follow-on appointments at DOE
# Seeking Academic Disciplines

Bachelor, Graduate, or Postdoctoral Degree from an accredited college or university

**Technical**
- Chemical Engineering
- Civil/Structural Engineering
- Electrical Engineering
- Environmental Engineering
- Industrial Engineering
- Mechanical Engineering
- Nuclear Engineering
- Environmental Science
- Fire Protection
- Occupational Safety and Health
- Physical Science
- Information Technology
- Other disciplines that support our program

**Non-Technical**
- Business Administration/Management
- Finance
- Accounting
- Political Science
- Law
- Public Administration
- Human Resources

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# Research Opportunities at DOE Labs/Facilities

- Education Programs at DOE Labs and Facilities
- Argonne Nuclear Science Educational Programs
- Fossil Energy-Mickey Leland Fellowship Program
- Fossil Energy Technical Career Intern Program
- Nuclear Energy Summer Internship Program
- Oak Ridge Institute for Science Education
- Science Undergraduate Laboratory Internship
- Science Community College Institute
- Science Pre-Service Future Teacher Program
- Science Workforce Development Programs for Teachers and Scientists
- Science Biological and Environmental Fellowships and Education Programs
- Princeton High Energy Physics Education Programs

[http://www.energy.gov/scholarships&internships.htm](http://www.energy.gov/scholarships&internships.htm)
Career Opportunities

- EM Professional Development Corps
  Contact Andre Fordham at empdc@hq.doe.gov or (202) 586-8568
  http://empdc.apps.em.doe.gov/

- DOE Career Intern Program
  http://www.usajobs.gov/

- Other Government Jobs
  http://www.usajobs.gov/