

Environmental Management

(discretionary dollars in thousands)

	FY 2010 Current Approp.	FY 2011 Annualized CR	FY 2012 Cong. Request	FY 2012 vs. FY 2010	
				\$	%
Defense Environmental Cleanup	5,652,158	5,642,331	5,410,162	-241,996	-4.3%
Non-Defense Environmental Cleanup	254,673	244,673	219,121	-35,552	-14.0%
Uranium Enrichment D&D Fund	573,850	573,850	504,169	-69,681	-12.1%
Discretionary Payments	-463,000	-463,000	0	+463,000	+100.0%
Use of Prior Year Balances	-11,787	0	-3,381	+8,406	+71.3%
Total, Environmental Management (Net)	6,005,894	5,997,854	6,130,071	+124,177	+2.1%

The FY 2012 **Office of Environmental Management (EM)** budget request totals \$6.13 billion, an increase of \$124 million from the FY 2010 current appropriation. The program scope includes cleanup of the environmental legacy from 50 years of nuclear weapons production and government-sponsored nuclear energy research at sites around the country. The FY 2012 request places a priority on balancing risk reduction and regulatory requirements, while continuing the Department's commitment to the highest level of safety performance standards. EM's objective is to reduce the legacy footprint 80% to 90% by the end of FY 2015. The FY 2012 request continues EM's risk reduction strategy and focuses on footprint reduction by leveraging additional progress enabled by the American Reinvestment and Recovery Act. The FY 2012 request reflects the following 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, processing, and disposition; high priority groundwater remediation; transuranic and mixed/low level waste disposition; soil and groundwater remediation; excess facilities deactivation and decommissioning.

Hanford Site/Richland (\$914 million)

- Includes funding for deactivation, decommissioning, demolition, and remediation of facilities and structures in the 100 and 300 Areas within the **River Corridor Closure Project**, including soil and groundwater treatment to prevent migration into the Columbia River. Decreases reflect completion of shipment of nuclear materials from the **Plutonium Finishing Plant** and reduced surveillance and maintenance costs due to completed cleanup. Total does not include \$69M for Safeguards and Security.

Hanford Site/River Protection (\$1,361 million)

- Provides \$840 million for construction of the **Waste Treatment and Immobilization Plant (WTP)**. Continues safe management of underground tanks and waste retrievals from single shell tanks. The request also supports scientific applied research and technology development activities related to advanced solutions for treatment of radioactive waste including pre-treatment processes, tank structural integrity, and advanced retrieval technologies.

Idaho National Laboratory (\$383 million)

- Provides for activities to meet the Idaho Settlement Agreement requirements for disposal of low-level, and mixed low-level, and TRU waste. Provides for operations of the **Sodium Bearing Waste Treatment Facility**. The decrease reflects completed transfer of spent (used) nuclear fuel to dry storage, as well as completion of Sodium Bearing Waste facility construction.

Oak Ridge Reservation (\$384 million)

- Includes treatment and disposal of defense-funded decommissioning, legacy waste management activities, including ongoing operation of the **Environmental Management Waste Management Facility**, processing of contact-and

remote-handled waste at the **Transuranic Waste Treatment Facility** and remediation of off-site publicly accessible sites. Total does not include \$17 million for Safeguards and Security at ETPP

Paducah Gaseous Diffusion Plant (\$134 million)

- Supports continued ramp-up of operations at **Depleted Uranium Hexafluoride Conversion Facility** and the packaging of 18,000 metric tons of depleted uranium, continued landfill operations, and pump and treat operations. Total does not include \$9M for Safeguards and Security.

Portsmouth Gaseous Diffusion Plant (\$294 million)

- Supports decontamination and decommissioning of enrichment facilities. The request supports the conclusion of the Highly Enriched Uranium Program activities, transition to full-scale operations of the **Depleted Uranium Hexafluoride Conversion Facility (DUF6) Conversion Facility**, and the packaging of 13,500 metric tons of depleted uranium. The request concludes additional support for the lead plant start up Total does not include \$16 million for Safeguards and Security.

Savannah River Site (\$1,234 million)

- Supports Savannah River Site's critical role in the Department's efforts to consolidate spent nuclear fuel and nuclear materials across the complex, and the management of spent nuclear fuel and nuclear materials. The request continues safe storage of nuclear materials in K Area, continued operations of the Defense Waste Processing Facility, tank farm operations as well as two tank closures, as well as continuing construction of the **Salt Waste Processing Facility**. Total does not include \$130 million for Safeguards and Security.

Waste Isolation Pilot Plant/Carlsbad (\$229 million)

- Supports receipt of 21 contact-handled and 5 remote-handled shipments of transuranic waste per week. Reflects ongoing work of Centralized Characterization Project waste characterization across the complex.. Total does not include \$5 million for Safeguards and Security.

West Valley Demonstration Project (\$58 million)

- Supports continued processing and disposal of waste generated from the decontamination and decommissioning activities at the Main Process Plant Building, and processing of transuranic (TRU) and high-activity wastes through the **Remote-Handled Waste Facility**.
- Total does not include \$1.6 million for Safeguards and Security.

Closure Sites (\$5 million)

- Provides for post closure administration at Rocky Flats (litigation, pensions, medical benefits, etc.), and other ongoing litigation liabilities, contract closeout.

National Nuclear Security Administration Sites (\$424 million)

- Reflects Solid Waste and Soil and Groundwater activities, completion of Material Disposal Area A central pit and eastern trenches exhumation, removal and disposal of the tanks, at **Los Alamos National Laboratory**, operation of the low-level waste disposal facility at the **Nevada Test Site**, and demolition of nuclear facility Buildings G2 and H2 at the **Separations Process Research Unit**.

Technology Development and Deployment (\$32 million)

- Supports applied research and technology development in areas such as tank waste, soil and groundwater remediation and deactivation and decommissioning.

Program Direction (\$322 million)

- Provides funding for salaries, benefits, travel, training, support services, and other related expenses for 1,582 FTEs, 1,084 of which are located in field offices, 325 in Headquarters, and 173 FTEs are assigned to the EM Consolidated Business Center. The FTEs support initiative to improve project management and contract management and to provide for succession planning as the number of retirement-eligible personnel increases.

Environmental Management

(discretionary dollars in thousands)

	FY 2010 Current Approp.	FY 2011 Annualized CR	FY 2012 Cong. Request	FY 2012 vs. FY 2010	
				\$	%
Defense Environmental Cleanup	5,652,158	5,642,331	5,410,162	-241,996	-4.3%
Non-Defense Environmental Cleanup	254,673	244,673	219,121	-35,552	-14.0%
Uranium Enrichment D&D Fund	573,850	573,850	504,169	-69,681	-12.1%
Discretionary Payments	-463,000	-463,000	0	+463,000	+100.0%
Use of Prior Year Balances	-11,787	0	-3,381	+8,406	+71.3%
Total, Environmental Management (Net)	6,005,894	5,997,854	6,130,071	+124,177	+2.1%

PROGRAM DESCRIPTION

The **Environmental Management (EM)** program was created in 1989 to safely manage the cleanup of the environmental legacy from 50 years of nuclear weapons production and government-sponsored nuclear energy research at sites around the country. The program includes the management of the remediation of sites contaminated by defense and civilian activities. DOE is requesting a total of \$6.1 billion in FY 2012.

EM is requesting program funds in three appropriation accounts: Defense Environmental Cleanup (FY 2010 \$5,652 million; FY 2012 \$5,410 million); Non-Defense Environmental Completion (FY 2010 \$255 million; FY 2012 \$219 million); and Uranium Enrichment Decontamination and Decommissioning Fund (FY 2010 \$574 million; FY 2012 \$504 million).

PROGRAM HIGHLIGHTS

The FY 2012 budget request totals \$6.1 billion, an increase of \$124 million from the FY 2010 appropriation. This funding level ensures that EM can meet its FY 2012 environmental cleanup compliance requirements. In addition, this funding level allows EM to leverage Recovery Act efforts towards FY 2012 cleanup scope such as, soil and groundwater remediation, facility D&D, and radioactive waste disposition. All of which provide the opportunity to reduce the legacy cold war footprint by cleaning up facilities, land and water resources in communities.

In addition, the FY 2012 request continues the critical investments in science and technology necessary to clean up the cold war legacy. These investments range from technology adaptations or demonstrations embedded in specific cleanup projects needed to ensure that a specific cleanup technology meet cleanup goals (either removing or containing contaminants of concern) and schedules to development and deployment of transformational technologies such as, the acceleration of tank waste retrievals by utilizing Rotary Microfiltration and Small Column Ion Exchange at tank treatment technologies.

Defense Environmental Cleanup

(discretionary dollars in thousands)

	FY 2010 Current Approp.	FY 2011 Annualized CR	FY 2012 Cong. Request	FY 2012 vs. FY 2010	
				\$	%
Closure Sites	41,468	0	5,375	-36,093	-87.0%
Hanford Sites	990,080	0	913,712	-76,368	-7.7%
Idaho National Laboratory	464,168	0	382,769	-81,399	-17.5%
NNSA Sites and Nevada Off-sites	295,631	0	423,692	+128,061	+43.3%
Oak Ridge Reservation	179,048	0	176,100	-2,948	-1.6%
Office of River Protection	1,096,600	0	1,361,391	+264,791	+24.1%
Savannah River Sites	1,209,949	0	1,224,144	+14,195	+1.2%
Waste Isolation Pilot Plant	230,337	0	228,926	-1,411	-0.6%
Program Direction	345,000	0	321,628	-23,372	-6.8%
Program Support	34,000	0	0	-34,000	-100.0%
Community, Regulatory and Program Support	0	0	91,279	+91,279	N/A
Safeguards and Security	279,437	0	248,826	-30,611	-11.0%
Technology Development	19,440	0	32,320	+12,880	+66.3%
Uranium Enrichment D&D Fund Contribution	463,000	0	0	-463,000	-100.0%
Subtotal, Defense Environmental Cleanup	5,648,158	5,638,331	5,410,162	-237,996	-4.2%
Use of Prior Year Balances	-11,787	0	-3,381	+8,406	+71.3%
Congressionally Directed Projects	4,000	0	0	-4,000	-100.0%
Total, Defense Environmental Cleanup	5,640,371	5,642,331	5,406,781	-233,590	-4.1%

PROGRAM DESCRIPTION

The FY 2012 request for the Defense Environmental Cleanup appropriation is \$5.4 billion. This request supports the largest portion of the Environmental Management mission, which is to complete the cleanup of the defense weapons research and production legacy. Upon completion, sites or portions of sites will be turned over to other DOE programs or to the Office of Legacy Management for long-term surveillance and maintenance. Defense Environmental Cleanup provides funding in accounts that are generally organized by site or location, such as the Savannah River Site. It also includes funding for Safeguards and Security, Technology Development and Deployment, community, Regulator and Program Support, and Program Direction. This appropriation includes funding for projects at the Idaho National Laboratory, Oak Ridge Reservation, Defense Closure sites (post-closure administration activities), the Hanford Site, the Savannah River Site, the Waste Isolation Pilot Plant (WIPP), and legacy cleanup at National Nuclear Security Administration (NNSA) sites.

SIGNIFICANT FUNDING CHANGES – FY 2010 Appropriation to FY 2012 Request (\$ in millions)

Closure Sites (FY 2010 \$41.5, FY 2012 \$5.4)-\$36.1
 Responsibility for post-closure administration at Rocky Flats, including long-term stewardship of the remedy, contractor post-retirement benefits, and records management transferred to the Office of Legacy Management.

Hanford Site (Richland) (FY 2010 \$990.1; FY 2012 \$913.7).....-\$76.4

The Richland Operations Office manages Hanford site cleanup activities associated with the production of nuclear materials during the Cold War, including soil and groundwater remediation, facility decontamination and decommissioning (D&D), stabilization and disposition of nuclear materials and spent nuclear fuel, and disposition of waste other than high-level waste, which is managed by the Office of River Protection. Defense-related Hanford activities are funded in one control point: Hanford Site.

At Richland, significant progress will continue to be made along the River Corridor. EM will complete the interim remedial actions for the 100 D and 100 H Areas, complete disposition of eleven facilities, complete removal of knock-out pot material from the K-West Basin, and initiate remediation of the deep chromium contamination waste site 100-C-7. In addition, the request supports high priority groundwater remediation efforts. Specifically, EM will complete operational testing of the groundwater system for treating technetium at S/SX tank farm, expand current pump-and-treat system at 100-HR-3 operable unit, complete 100 and 300 Areas remedial investigations to obtain final records of decision, and begin Phase 1 operations of 200W pump and treat system. These efforts are aimed at reducing the Richland site cleanup footprint.

Request includes increases for the maintenance and planned upgrades at T Plant to support the storage of K Basin sludge, and the additional operations required for groundwater remediation systems in the Central Plateau as well as completion of two buildings, one contaminated soil site and interim safe storage of the K-East reactor. The D&D of these facilities will allow access to the soil sites and ultimately will prevent Chromium-6 (from these sites) from reaching the Columbia River. The decreases are associated with the completion of shipments of special nuclear materials from Plutonium Finishing Plant in FY 2010 and a reduction in facilities surveillance and maintenance, project management and site services due to specific decontamination and decommissioning activities being completed through the American Recovery and Reinvestment Act in FY 2011, reduced support for sludge removal activities, and completion of interim remedial actions in the 100 and 300 Areas.

Office of River Protection (FY 2010 \$1,096.6; FY 2012 \$1,361.4)+\$264.8

Office of River Protection's primary goal is the safe management and treatment of approximately 53 million gallons of high-level radioactive liquid waste in the 177 underground storage tanks at Hanford. Funding for River Protection activities is funded in two control points: the Waste Treatment and Immobilization Project (\$840.0) and Tank Farm Activities (\$521.4).

This request funds construction of the Waste Treatment and Immobilization Plant (WTP) to immobilize radioactive waste at Hanford consistent with the schedule to complete project design in FY 2013, facility construction in FY 2016, and facility commissioning in FY 2019. Increased funding for WTP is needed to support the increased confidence level to complete the project within budget and on schedule. The request will enable the project to meet its commitment of operations in FY 2019 within the current baseline Total Project Cost of \$12.26 billion. In FY 2012, the two subprojects for the Waste Treatment and Immobilization Plant Project were combined into a single control point: 01-D-416 Waste Treatment and Immobilization plant (\$840.0). However, EM will continue to provide detailed information on the separate subprojects for Congressional review.

Increased funding also supports critical tank farm infrastructure upgrades and waste feed delivery needed to ensure waste feed is available for start-up and commissioning of the Waste Treatment and Immobilization Plant operations. This request also supports one bulk retrieval and three hard heel removals from the C-Farm Single Shell tanks.

Idaho National Laboratory (FY 2010 \$464.2; FY 2012 \$382.8)-\$81.4

The FY 2012 request supports operations of the Sodium Bearing Waste treatment facility at Idaho. Testing and readiness verification will be completed in preparation for hot startup is scheduled for January 2012. This project will treat approximately 900,000 gallons of sodium bearing waste stored in waste tanks that are 35 to 45 years old. The treatment of this waste will enable EM to close four tanks, complete treatment of all active waste, and meet the Notice of Noncompliance – Consent Order Modification to cease use of the Tank Farm Facility by December 31, 2012.

Additionally, Idaho's request will support requirements of the Idaho Settlement Agreement to dispose of remote-handled low-level waste at the Radioactive Waste Management Complex and mixed low-level waste at appropriate off-site disposal facilities; and characterize and certify remote-handled TRU waste at the Idaho Nuclear Technology and Engineering Center in preparation for shipment to the Waste Isolation Pilot Plant (WIPP). The request will provide for shipping stored contact-handled TRU waste to WIPP using the Advanced

Mixed Waste Treatment Facility, and for receipt, characterization, and certification of TRU waste from other DOE sites in preparation for shipment to WIPP.

The request includes an increase for additional characterization and certification of contact-handled transuranic waste from other small DOE sites in preparation for shipment to the Waste Isolation Pilot plant, and provide for two additional Accelerated Retrieval Projects to operate in the facilities that were constructed with American Recovery and Reinvestment Act funding. As well as decreases associated with the completion of the transfer from wet to dry storage of spent (used) nuclear fuel; completion of treatment of the sodium bonded fuel from the Fast Flux test Facility; completion in construction for the Sodium Bearing Waste Treatment project, completion of grouting the tank farm off-gas piping system and the completion of relocation of the Emergency Communication System and dial room.

NNSA Sites (FY 2010 \$295.6; FY 2012 \$423.7)+\$128.1

The request provides for cleanup of the legacy of environmental contamination and waste at National Nuclear Security Administration (NNSA) sites. Included are Los Alamos National Laboratory (\$357.9), Lawrence Livermore National Laboratory (\$0.9), Nevada Test Site (\$63.3), and Separations Process Research Unit in New York (\$1.5).

- **Los Alamos National Laboratory** reflects an increase (\$160.4) in FY 2012. This increase positions EM to aggressively pursue cleanup at LANL in accordance with the Consent Order while working with regulators to facilitate cleanup as quickly as possible. The increase supports Solid Waste and Soil and Groundwater activities which are critical to achieving the fence-to-fence cleanup required under the Consent Order. Specifically, 1,300 cubic meters of mixed low level waste and 1,000 cubic meters of transuranic waste will be disposed in FY 2012. In addition, the budget supports completion of Material Disposal Area A exhumation of the wastes in the central pit and eastern trenches, removal and disposal of the tanks, backfill the excavation areas, covering and sampling of the area for release.
- **Lawrence Livermore National Laboratory** reflects a decrease (-\$2.1) in FY 2011. The decrease reflects completion of soil removal activities at the Building 850 Firing Table.
- The request for **Nevada Test Site** supports operation of the low-level waste disposal facility, and ongoing characterization and remediation activities. The decrease of (-\$11.0) reflects completion of new Resource Conservation and Recovery Act mixed low-level waste disposal cell in FY2010.
- The decrease for **Separations Process Research Unit** (-\$13.5) reflects the completion of contaminated soil removal, completion of North Field activities and transfer to Naval Reactors, and removal of tanks and tank waste from building H2 vaults. Due to several contamination incidents in early FY 2011, demolition and closure of the G2 and H2 buildings will be deferred from FY 2011 to FY 2012.

Oak Ridge Reservation (FY 2010 \$179.0; FY 2012 \$176.1)-\$3.0

In FY 2012, the operation of the Transuranic Waste Processing Center (TWPC) will transfer from the Recovery Act program back into the base program and will allow EM to continue processing contact-handled and remote-handled TRU in order to meet the Site Treatment Plan milestone and to prepare TRU waste for certification, shipment, and disposal at WIPP.

Increase in funding supports Transuranic Waste Processing Facility accelerated scope for receipt, processing, and repackaging of contact-handled and remote-handled waste previously funded under the American Reinvestment Recovery in FY 2010 and in FY 2011, modest expansion of Data Quality Objective characterization requirements to areas outside of the main Oak Ridge National Laboratory central campus in support of the Oak Ridge National Laboratory Soils and Sediments project as well as funding for the regulatory requirement to perform remedial activities at the Screen Arts site. Safety activities related to the Department's inventory of U-233 in Building 3019 will be funded through the use of uncosted carryover in FY2012, pending final alternatives evaluation to proceed with revised path forward in FY 2013.

Savannah River (FY 2010 \$1,209.9; FY 2012 \$1,224.1)+\$14.1

Savannah River Site is responsible for stabilization, treatment and disposition of legacy nuclear materials and wastes, spent nuclear fuels, and remediation of contaminated media resulting from nuclear materials produced during the Cold War. Savannah River activities are funded in one control point: Savannah River Site.

In FY 2012, at the Savannah River Site, the largest portion of the request supports the Tank Waste Liquid Waste Management Program, which includes the operation of the Defense Waste Processing Facility, as well as operation of the Actinide Removal Process and Modular Caustic Side Extraction units. These units will be needed through construction of the Salt Waste Processing Facility (\$170.1). In addition, the request supports the Tank 48 return to service project and closure of two additional tanks. Closure of these tanks is the first delivery on the recently approved enhanced tank waste strategy commensurate with the recent change to a performance-based liquid waste contractor and the deployment of at-tank pre-treatment technologies such as, rotary microfiltration and small column ion exchange.

H Canyon will be maintained in a safe standby state, pending the decision on spent (used) nuclear fuel processing. The site will also continue to receive weapons grade surplus non-pit plutonium from the Los Alamos National Laboratory and Lawrence Livermore National Laboratory, which concludes in FY 2012, and supports the Global Threat Reduction Initiative through continued receipt of foreign and domestic research reactor spent (used) fuel.

Increases in the FY2012 budget reflect EM's commitment to its enhanced tank waste strategy initiative which will support closure of two tanks and position the site to accelerate additional tank closures. Increases also reflect the resumption of base funding in FY 2012 for management of low-level, mixed low-level and hazardous waste which was previously included in the American Recovery and Reinvestment Act appropriation from FY 2009-FY 2011, and the continuation of Tank 48 Treatment Process Project. Decreases reflect the one time funding for K-Area purification vault in FY 2010 and the completion of ecological work scope in FY 2010 related to the Savannah River environmental cleanup and not funded by the American Recovery and Reinvestment Act appropriation.

Waste Isolation Pilot Plant (FY 2010 \$230.3; FY 2011 \$228.9)-\$1.4

Funding supports the National Transuranic Waste Program, managed by Carlsbad Field Office, including the operation of the Waste Isolation Pilot Plant, the national repository for defense-generated transuranic waste, near Carlsbad, New Mexico. This funding level supports 21 contact handled and 5 remote handled transuranic waste shipments per week. FY 2012 decrease reflects reduced level of regulatory development and support activities, due to Hazardous Waste Permit Renewal and Compliance Recertification being completed, and reduction in the number of sites at which the Central Characterization Project is deployed because only a few small quantity sites remain to be closed in FY 2012.

Program Direction (FY 2010 \$345.0; FY 2012 \$321.6)-\$23.4

The federal workforce is responsible for the overall direction and administrative support of the EM program, including both headquarters and field personnel. It provides funding for salaries, benefits, travel, training, support services, and other related expenses for 1,582 FTEs, 1,084 of which are located in field offices, 325 in Headquarters, and 173 FTEs are assigned to the EM Consolidated Business Center.

Community, Regulatory, and Program Support (FY 2010 \$0.0; FY 2012 \$91.3)+ \$91.3

In FY 2012, EM will be consolidating EM Headquarters policy and oversight activities, community and regulatory support and contract/post closure activities across the EM complex into a single control point. The consolidation of these activities into a single control point will allow for greater transparency and accountability of overhead activities but will also provide flexibility during the year of execution.

Safeguards and Security (FY 2010 \$279.4; FY 2012 \$248.8)-\$30.6

The FY 2012 request ensures appropriate levels of protection for EM facilities and cleanup sites, anticipates evolving threats, and maintains a balance of the security mission with the operation of the Waste Isolation Pilot Plant, East Tennessee Technology Park, West Valley, Paducah, Portsmouth, Hanford, and Savannah River sites. Decrease for Oak Ridge (-\$15.1) reflects reduced requirements at the East Tennessee Technology Park and at the TRU Waste Facility. Decrease for Richland (-\$13.5) is due to off-site plutonium de-inventory completion and associated closure of the Plutonium Finishing Plant protected area and the completion of upgrades for Safeguards and Security life-cycle cost reductions, permitting a reduction in site protective force requirements. Decrease for Savannah River (-2.1) is attributed to the use of prior year carryover funding in FY 2012 to offset FY 2012 Safeguards and Security requirements at the Savannah River Site

Technology Development and Deployment (FY 2010 \$19.4; FY 2012 \$32.3)..... +\$12.8

EM has requested \$32.3 million in technology development and deployment funding in FY 2012. This funding will be utilized to support groundwater and soil remediation subsurface science issues to support development of state-of-the-art methods and models for fate and transport in the subsurface. This reduces the uncertainty in the current models and methods for performance assessments.

In addition the FY 2012 request includes \$60 million in technology development funding to continue the acceleration of development and deployment of needed technologies to address tank waste issues related to tank treatment, waste chemistry for characterization and separation; advanced retrieval technologies; improved melter throughput; and increased glass waste loading. The majority of this work would be funded by the \$60 million requested within the Office of River Protection to support Hanford and Savannah River tank waste issues.

The FY 2012 request also includes other research and development initiatives being conducted across the complex in conjunction with the national laboratories. Many of these activities are embedded in cleanup projects and are needed to ensure that specific cleanup remedies/technologies meet cleanup schedules and end states such as, removing or containing contaminants of concern.

Non-Defense Environmental Cleanup

(discretionary dollars in thousands)

	FY 2010 Current Approp.	FY 2011 Annualized CR	FY 2012 Cong. Request	FY 2012 vs. FY 2010	
				\$	%
Fast Flux Test Reactor Facility (WA)	7,652	0	2,703	-4,949	-64.7%
Gaseous Diffusion Plants	100,885	0	100,588	-297	-0.3%
Small Sites	88,062	0	57,430	-30,632	-34.8%
West Valley Demonstration Project	58,074	0	58,400	+326	+0.6%
Total, Non-Defense Environmental Cleanup	254,673	244,673	219,121	-35,552	-14.0%

PROGRAM DESCRIPTION

The FY 2012 request for the Non-Defense Environmental Cleanup appropriation is \$219.1million, a decrease of \$35.5 million from FY 2010. This appropriation supports activities that address the environmental legacy resulting from civilian nuclear energy research. The nuclear energy research and development carried out by the Department and its predecessor agencies generated waste and contamination that pose unique problems, including large quantities of contaminated soil and groundwater and a number of contaminated structures. Upon completion of cleanup activities, these sites or portions of a site are turned over to other DOE program landlords or to the Office of Legacy Management for long-term surveillance and maintenance.

The Non-Defense Environmental Cleanup provides funding in several accounts: Fast Flux Test Reactor Facility, Gaseous Diffusion Plants, Small Sites, and the West Valley Demonstration Project. Funding for the Small Sites account includes projects at Argonne National Laboratory, Brookhaven National Laboratory, the Energy Technology Engineering Center, Idaho National Laboratory, Moab, and the Stanford Linear Accelerator Center.

SIGNIFICANT FUNDING CHANGES – FY 2010 Appropriation to FY 2012 Request (\$ in millions)

West Valley Demonstration Project (FY 2010 \$58.1; FY 2012 \$58.4).....+\$0.3

This project includes solid waste stabilization and disposition, and nuclear facility decontamination and decommissioning activities at West Valley, New York. The FY 2012 request supports continued processing and disposal of low level and transuranic waste generated from the decontamination and decommissioning activities at the Main Process Plant Building.

Gaseous Diffusion Plants (FY 2010 \$100.9; FY 2012 \$100.6).....-\$0.3

The EM program includes the conversion of depleted uranium hexafluoride (DUF6) produced during enrichment operations at the gaseous diffusion plants at Paducah, Kentucky, and Portsmouth, Ohio, to a more stable form, and the maintenance and storage DUF6 cylinders and facilities.

Paducah (FY 2010 \$40.5; FY 2012 \$52.4).....+\$11.9

The FY 2012 request supports continuation of ramp up (including increase in staff) necessary for hot functional testing, leading to full operations of the DUF6 Conversion Facility

Portsmouth (FY 2010 \$60.4; FY 2012 \$48.1).....-\$12.2

The FY 2012 request supports the conclusion of the Highly Enriched Uranium Program activities and additional support for the lead plant start up was no longer necessary, and reflects transition to full-scale operations of the DUF6 Conversion Facility.

Fast Flux Test Reactor Facility (FY 2010 \$7.7; 2011 \$2.7)..... -\$4.9
The FY 2012 request supports a reduction in requirements for fire systems resulting in a comparable reduction in surveillance and maintenance work.

Small Sites (FY 2010 \$88.1; FY 2012 \$57.44)..... -\$30.6
Activities include cleanup, and decontamination and decommissioning activities at small non-defense sites and projects at Argonne National Laboratory, Brookhaven National Laboratory, Energy Technology Engineering Center, Moab site, and Stanford Linear Accelerator Center, and non-defense activities at the Idaho National Laboratory.

Argonne National Laboratory (FY 2010 \$10.0; FY 2012 \$0.0) -\$10.0
EM legacy cleanup is complete at Argonne. Cleanup of excess facilities is being completed with funding provided by the National Nuclear Security Administration to transfer \$10 million to EM for waste cleanup activities that are in addition to the legacy scope of work completed by EM at Argonne National Laboratory.

Brookhaven National Laboratory (FY 2010 \$15.0; FY 2012 \$8.2).....-\$6.8
The FY 2012 request will support surveillance and maintenance activities for the Soil and Water Remediation Project during FY 2012 and in FY 2013 will initiate the transfer to the Office of Science.

Idaho National Laboratory (FY 2010 \$5.0; FY 2012 \$5.1) +\$0.1
The FY 2012 request provides for ongoing stewardship of spent nuclear fuel from Three Mile Island and Fort Saint Vrain.

Energy Technology Engineering Center (FY 2010 \$10.5 FY 2012 \$10.7) ...+\$0.2
The FY 2012 request provides ongoing program and landlord support, site wide environmental monitoring, radiological groundwater characterization, and support to the Environmental Protection Agency for Area IV radiological characterization study.

Moab Site (FY 2010 \$39.0; FY 2012 \$31.0)..... -\$8.0
FY 2012 activities include Moab and Crescent Junction operations and maintenance, continued monitoring and analysis of contaminated groundwater, and continued remediation of properties surrounding the tailings pile. Decrease reflects additional appropriated funds that were used to transport a greater volume of tailings than was planned for FY 2010.

Stanford Linear Accelerator Center (FY 2010 \$7.1; FY 2012 \$2.4)..... -\$4.7
This project scope includes remediation of chemical contamination of soil and groundwater resulting from decades of physics research at the site. FY 2012 activities include operation of groundwater treatment systems and soil remediation. Decrease reflects completion of legacy scope. EM will support surveillance and maintenance activities during FY 2012 and in FY 2013 will initiate the transfer to the Office of Science.

Uranium Enrichment Decontamination and Decommissioning Fund

(discretionary dollars in thousands)

	FY 2010 Current Approp.	FY 2011 Annualized CR	FY 2012 Cong. Request	FY 2012 vs. FY 2010	
				\$	%
Decontamination and Decommissioning	573,850	573,850	0	-573,850	-100.0%
Oak Ridge	0	0	182,747	+182,747	N/A
Paducah	0	0	77,780	+77,780	N/A
Portsmouth	0	0	243,642	+243,642	N/A
Total, Uranium Enrichment D&D Fund	573,850	573,850	504,169	-69,681	-12.1%

PROGRAM DESCRIPTION

The Energy Policy Act of 1992 established the Uranium Enrichment Decontamination and Decommissioning Fund (UED&D Fund) to carry out environmental management responsibilities at the nation's three gaseous diffusion plants. These responsibilities include decontamination and decommissioning, remedial actions, waste management, landlord requirements, surveillance, and operation and maintenance activities associated with conditions at the plants prior to the presence of the U.S. Enrichment Corporation. The UED&D Fund received receipts from commercial utilities based on their historic purchases of uranium enrichment services, measured in separative work units. The remainder of the annual deposit to the UED&D Fund is made by DOE and is authorized to come from annual appropriations. The law also requires DOE to administer a reimbursement program for remediation activities at active uranium and thorium processing sites that sold material to the U.S. government. The request for UED&D Fund activities for FY 2012 is \$504.2 million.

SIGNIFICANT FUNDING CHANGES – FY 2010 Appropriation to FY 2012 Request (\$ in millions)

Decontamination and Decommissioning (FY 2010 \$573.9; FY 2012 \$504.2).....-\$69.7
Office of Environmental Management manages the maintenance, remediation, and decontamination and decommissioning of uranium processing facilities and the gaseous diffusion plants at Paducah, Kentucky; Portsmouth, Ohio; and the East Tennessee Technology Park in Oak Ridge, Tennessee. In FY 2012, a site control level is being instituted within the Uranium Enrichment Decontamination and Decommissioning Appropriation.

Oak Ridge East Tennessee Technology Park (ETTP) (FY 2010 \$225.0; FY 2012 \$182.7).....-\$42.3
The FY 2012 request focuses on maintaining compliance with the ETTP, formerly K-25, safety basis requirements and continuing demolition of the K-25 process building. Decrease reflects completion of contract transition activities and completion of some pre-demolition activities in the North End and East Wing of the K-25 building.

Paducah (FY 2010 \$116.5; FY 2012 \$77.9)..... -\$38.6
FY 2012 request supports continued landfill operations, pump and treat operations, remediation of groundwater, and demolition of C-340 and C-410 complexes. Decrease reflects completion of building C-400 Phase I and II and of enhanced groundwater monitoring facilities. Decrease reflects the completion of disposition of all legacy waste (that was generated by activities at the Paducah Gaseous Diffusion Plant prior to 1993) at offsite disposal facilities and completion of enhanced groundwater plume monitoring system and optimization of the Northwest plume pump and treat system.

Portsmouth (FY 2010 \$232.4; FY 2012 \$243.6)+\$11.2
The FY 2012 request supports ongoing gaseous diffusion plant decontamination and decommissioning and increased disposal of low-level waste associated with those activities. Increase reflects acceleration of decontamination and decommissioning activities to realize life-cycle cost savings. Increase supports removal of process motors from X-326 and an increased focus on decontamination and decommissioning activities subsequent to facility turnover and additional funding necessary to complete disposition at offsite disposal

facilities, including the Nevada National Security Site, of uranium materials stored in the Uranium Management Center from universities and other sites that no longer utilize material in research programs and from cascade operations at the site.

Uranium/Thorium Reimbursements (FY 2010 \$0.0; FY 2012 \$0.0) +\$0.0

Title X of the Energy Policy Act of 1992 authorizes reimbursement of uranium and thorium processing site licensees for a portion of their cost of cleanup (federal-related byproduct material). Funding provided by the American Recovery and Reinvestment Act will be used to reimburse eligible outstanding claims owed to eleven licensees in FY 2012.