DOE/CF-0100
Volume 5

Department of Energy
FY 2015 Congressional Budget Request

Environmental Management

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FUNDING BY APPROPRIATION

(Discretionary dollars in thousands)

Department of Energy Budget by Appropriation	FY 2013 Current	FY 2014 Enacted	FY 2015 Request	FY 2015 vs. FY 2014 $	FY 2015 vs. FY 2014 %
Energy and Water Development and Related Agencies					
Energy Programs					
Energy Efficiency and Renewable Energy	1,691,757	1,900,641	2,316,749	+416,108	+21.9%
Electricity Delivery and Energy Reliability	129,196	147,242	180,000	+32,758	+22.2%
Nuclear Energy	708,429	888,376	863,386	-24,990	-2.8%
Fossil Energy Programs					
Clean Coal Technology	0	0	-6,600	-6,600	N/A
Fossil Energy Research and Development	498,715	561,931	475,500	-86,431	-15.4%
Naval Petroleum and Oil Shale Reserves	14,129	19,999	19,950	-49	-0.2%
Elk Hills School Lands Fund	0	0	15,580	+15,580	N/A
Strategic Petroleum Reserve	182,625	189,360	205,000	+15,640	+8.3%
Northeast Home Heating Oil Reserve	3,590	8,000	1,600	-6,400	-80.0%
Total, Fossil Energy Programs	***699,059***	***779,290***	***711,030***	***-68,260***	***-8.8%***
Uranium Enrichment D&D Fund	448,231	598,574	530,976	-67,598	-11.3%
Energy Information Administration	99,508	116,999	122,500	+5,501	+4.7%
Non-Defense Environmental Cleanup	223,457	231,741	226,174	-5,567	-2.4%
Science	4,681,195	5,066,372	5,111,155	+44,783	+0.9%
Advanced Research Projects Agency - Energy	250,636	280,000	325,000	+45,000	+16.1%
Departmental Administration	119,195	126,449	129,052	+2,603	+2.1%
Office of Indian Energy Policy and Programs	0	0	16,000	+16,000	N/A
Office of the Inspector General	39,803	42,120	39,868	-2,252	-5.3%
Title 17 - Innovative Technology					
Loan Guarantee Program	0	20,000	7,000	-13,000	-65.0%
Advanced Technology Vehicles Manufacturing Loan Program	5,686	6,000	4,000	-2,000	-33.3%
Total, Energy Programs	***9,096,152***	***10,203,804***	***10,582,890***	***+379,086***	***+3.7%***
Atomic Energy Defense Activities					
National Nuclear Security Administration					
Weapons Activities	6,966,855	7,781,000	8,314,902	+533,902	+6.9%
Defense Nuclear Nonproliferation	2,237,420	1,954,000	1,555,156	-398,844	-20.4%
Naval Reactors	994,118	1,095,000	1,377,100	+282,100	+25.8%
Federal Salaries and Expenses/1	377,457	377,000	410,842	+33,842	+9.0%
Cerro Grande Fire Activities	-61	0	0	0	N/A
Total, National Nuclear Security Administration	***10,575,789***	***11,207,000***	***11,658,000***	***+451,000***	***+4.0%***
Environmental and Other Defense Activities					
Defense Environmental Cleanup	4,627,054	5,000,000	5,327,538	+327,538	+6.6%
Other Defense Activities	760,030	755,000	753,000	-2,000	-0.3%
Defense Nuclear Waste Disposal	-727	0	0	0	N/A
Total, Environmental and Other Defense Activities	***5,386,357***	***5,755,000***	***6,080,538***	***+325,538***	***+5.7%***
Total, Atomic Energy Defense Activities	***15,962,146***	***16,962,000***	***17,738,538***	***+776,538***	***+4.6%***
Power Marketing Administrations					
Southeastern Power Administration	0	0	0	0	N/A
Southwestern Power Administration	11,243	11,892	11,400	-492	-4.1%
Western area Power Administration (CROM)	90,949	95,930	93,372	-2,558	-2.7%
Falcon and Amistad Operating and Maintenance Fund	220	420	228	-192	-45.7%
Colorado River Basins	-23,000	-23,000	-23,000	0	N/A
Transmission Infrastructure Program	0	0	0	0	N/A
Total, Power Marketing Administrations	***79,412***	***85,242***	***82,000***	***-3,242***	***-3.8%***
Federal Energy Regulatory Commission (FERC)	0	0	0	0	N/A
Subtotal, Energy and Water Development and Related Agencies	***25,137,710***	***27,251,046***	***28,403,428***	***+1,152,382***	***+4.2%***
Uranium Enrichment D&D Fund Discretionary Payments	0	0	-463,000	-463,000	N/A
Excess Fees and Recoveries, FERC	-279	-26,236	0	+26,236	+100.0%
Total, Discretionary Funding by Appropriation	**25,137,431**	**27,224,810**	**27,940,428**	**+715,618**	**+2.6%**

1/Formerly Office of the Administrator

Environmental Management
Proposed Appropriations Language

Defense Environmental Cleanup

For Department of Energy expenses, including the purchase, construction, and acquisition of plant and capital equipment and other expenses necessary for atomic energy defense environmental cleanup activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, and the purchase of not to exceed one sport utility vehicle, [three lube trucks, and] one heavy duty truck, two ambulances, and one ladder fire truck for replacement only, [$5,000,000,000] *$4,864,538,000*, to remain available until expended: Provided, That [$300,000,000] *$280,784,000* shall be available until September 30, [2015] *2016*, for program direction.

(Legislative proposal, not subject to PAYGO)

Contingent upon the enactment of legislation reauthorizing the Uranium Enrichment Decontamination and Decommissioning Fund, $463,000,000, which shall be transferred to "Uranium Enrichment Decontamination and Decommissioning Fund".

Non-Defense Environmental Cleanup

For Department of Energy expenses, including the purchase, construction, and acquisition of plant and capital equipment and other expenses necessary for non-defense environmental cleanup activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, [$231,765,000] *$226,174,000*, to remain available until expended.

Uranium Enrichment Decontamination and Decommissioning Fund

For necessary expenses in carrying out uranium enrichment facility decontamination and decommissioning, remedial actions, and other activities of title II of the Atomic Energy Act of 1954, and title X, subtitle A, of the Energy Policy Act of 1992, [$598,823,000] *$530,976,000*, to be derived from the Uranium Enrichment Decontamination and Decommissioning Fund, to remain available until expended.

Public Law Authorizations

- Public Law 95-91, "Department of Energy Organization Act (1977)"
- Public Law 102-579, "Waste Isolation Pilot Plant Land Withdrawal Act (1992)"
- H.R.776, "Energy Policy Act of 1992"
- Public Law 103-62, "Government Performance and Results Act of 1993"
- Public Law 111-352, "GPRA Modernization Act of 2010"
- Public Law 113-66, "National Defense Authorization Act for Fiscal Year 2014"

Environmental Management
($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request
Defense Environmental Cleanup	4,646,054	5,000,000	5,000,000	5,327,538
Non-Defense Environmental Cleanup	223,457	233,947	233,947	226,174
Uranium Enrichment Decontamination and Decommissioning Fund	448,231	598,574	598,574	530,976
Subtotal, Environmental Management	**5,317,742**	**5,832,521**	**5,832,521**	**6,084,688**
D&D Fund Offset	0	0	0	-463,000
Use of Prior Year (Defense Environmental Cleanup)	-19,000	0	0	0
Use of Prior year (Non-Defense Environmental Cleanup)	0	-2,206	-2,206	0
Total, Environmental Management	**5,298,742**	**5,830,315**	**5,830,315**	**5,621,688**

Overview

The Office of Environmental Management (EM) supports the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and Cold War activities. The EM program was established in 1989 and is responsible for the cleanup of millions of gallons of liquid radioactive waste, thousands of tons of spent (used) nuclear fuel and special nuclear material, disposition of large volumes of transuranic and mixed/low-level waste, huge quantities of contaminated soil and water, and deactivation and decommissioning of thousands of excess facilities. This is the largest environmental cleanup program in the world brought about from five decades of nuclear weapons development and production and Government-sponsored nuclear energy research. It involves some of the most dangerous materials known to humankind. In FY 2014, EM will complete and transfer of the Stanford Linear Accelerator Center to the Office of Science. With that, EM has completed cleanup activities at 91 sites in 30 states and in the Commonwealth of Puerto Rico; EM is responsible for the remaining cleanup at 16 sites in 11 states. It is EM's goal to complete the cleanup in approximately six decades within the currently estimated life-cycle cost range of $290,326,096,000 to $328,406,529,000. This includes $109,426,378,000 in actual costs from 1997 through 2013, and an additional estimate of $180,899,718,000 to $218,980,152,000 to complete EM's remaining mission between 2014 and 2070.

EM continues to pursue its cleanup objectives safely within a framework of regulatory compliance commitments and best business practices. The rationale for cleanup prioritization is based on achieving the highest risk reduction benefit per radioactive content (activities focused on wastes that contain the highest concentrations of radionuclides and sites with the highest radionuclide contamination). Taking many variables into account, EM has generally prioritized its cleanup activities as follows:

- Activities to 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, stabilization, and disposition
- Transuranic and mixed/low-level waste disposition
- Soil and groundwater remediation
- Excess facilities deactivation and decommissioning.

Most importantly, EM will continue to discharge its responsibilities by conducting cleanup within a "Safety First" culture that integrates environmental, safety, and health requirements and controls into all work activities. This ensures protection to the workers, public, and the environment.

EM has continued to make progress in cleaning up the complex. For example, in the High Level Tank Waste program area, EM is on schedule to complete closure of Tanks 5 and 6 at the Savannah River Site and initiate work on Tanks 12 and 16 in 2014. At Idaho, EM completed construction of the Accelerated Retrieval Project (ARP) VIII on schedule and under cost and continues the buried waste exhumation at ARP areas VII and VIII throughout FY 2014. This is the largest ARP constructed to date at 1.72 acres. At Los Alamos National Laboratory, EM will complete the campaign to remove 3,706 cubic meters of above-grade transuranic waste, in accordance with the Framework Agreement. At Oak Ridge, EM completed demolition of the North Tower of the K-25 uranium processing facility and initiated characterization at K-27 in FY 2014, and will continue activities to plan and prepare for the processing phase of the U-233 project, including physical preparations of Building 2026, where the downblending/processing will occur. At Moab in FY 2014, EM will continue project activities without curtailment to excavate, transport, and disposed of uranium mill tailings at the Crescent Junction disposal facility. Finally, key EM reforms in contract and project management are bearing fruit. The Government Accountability Office (GAO) has recognized EM's progress in this area in its February 14, 2013, biennial update of the high risk list. In recognition of EM's improvements in contract and project management, GAO narrowed the scope of its high risk designation to EM capital asset projects with life-cycle costs greater than $750 million.

American Recovery and Reinvestment Act

As of December 31, 2013, EM has expended $5,975,294,374 or 99.85 percent, of the $5,984,038,578 in ARRA funding to achieve footprint reduction and complete near-term cleanup activities. More than 11,000 highly skilled technical jobs were created by Recovery Act activities. The remaining $8,744,204 is expected to be expended by the end of FY 2015 to pay for final invoices on activities at the Richland, Oak Ridge, and Savannah River sites.

Highlights and Major Changes in the FY 2015 Budget Request

The FY 2015 investment of $5,621,688,000 in budget authority will be utilized to fund activities to maintain a safe, secure and compliant posture in the EM complex. We will engage with our federal and state regulators regarding compliance requirements that may result in changes to the cleanup milestones in 2015. Given this, we anticipate the FY 2015 funding level positions the EM program to meet enforceable agreement milestones due FY 2015. The FY 2015 budget request supports the continued construction of two unique and complex tank waste processing plants at the Savannah River Site and Office of River Protection. EM is working closely with our contractors to identify the most economical and timely path for completion. Eventually, these two sites will treat over 80 million gallons of radioactive tank waste for ultimate disposal.

In FY 2015 much progress will be made on the treatment of high level radioactive waste in tanks across the complex. The work on emptying liquid high level radioactive waste in tanks at Idaho will be completed in FY 2015. This budget supports the removal of tank sludges and the cleaning and grouting activities supporting the closure of the final four high level waste tanks at the site. At the Savannah River site, the FY 2015 request supports continued production of over 100 canisters of vitrified waste derived and processed from the high level waste tanks, and the construction of an additional on-site disposal space for saltstone, both activities contributing to high level radioactive liquid waste elimination and eventual tank closure.

Before the radioactive contaminated buildings in the Environmental Management program can be decontaminated and demolished, sufficient disposal space for debris must be made available. This budget supports the design and permitting of on-site disposal cells at Portsmouth and Paducah, enabling the work to commence on the disposition of waste from the decontamination and decommissioning of the gaseous diffusion plants at these locations.

The FY 2015 budget supports the ongoing cleanup effort at the East Tennessee Technology Park, at Oak Ridge. EM is in the process of decommissioning the last remaining gaseous diffusion plant, K-27, at the site. The budget also supports investment in mercury characterization and remediation technologies and the design for an eventual Mercury Treatment Facility.

The Department is working aggressively to complete and operate the treatment facilities and infrastructure to safely immobilize and dispose of Hanford's tank waste. This budget supports continued construction of the Low-Activity Waste Facility, Balance of Facilities and Analytical Laboratory, while resources are dedicated to promptly resolve the outstanding technical issues of the High-Level Waste and Pretreatment Facilities.

To help address many of the technical challenges involved with high-risk activities, EM is requesting $16,007,000 for the Technology Development and Deployment program. This program includes Site- and Headquarters- managed projects. For example, in FY 2015 we will begin testing multiple technologies to solidify/stabilize mercury in soil to minimize release across the Oak Ridge site when we begin decontamination and decommissioning of excess facilities. The Headquarters-managed projects, on the other hand, are applied research projects to be used in the development of applications of the technology in program activities across multiple sites. For example, in FY 2015 we will invest in a state-of-the-art modeling and analysis tool to simulate movement of subsurface contaminants in groundwater through various soil conditions. Progress in this area will allow cleanup efforts to move quickly to monitored natural attenuation, which has the potential to save billions in life-cycle costs. The budget also includes approximately $100 million to support mission activities and cleanup technology performed or developed by the Savannah River National Laboratory to enhance cleanup progress at Savannah River and across the EM complex. For example, in FY 2015 the lab will support tank waste technology development including means to separate the high activity radionuclides in order to disposition the high level waste along with various unit operations such as filtering, grinding, and retrieval; conduct sampling and analysis of special nuclear materials; develop tank waste mixing and tank closure technologies; develop flow sheets and models to support the processing of radioactive waste; develop groundwater remediation and facility decontamination and decommissioning technology; and develop next-generation cleanup technologies.

The FY 2015 Budget funds the following specific activities:

At Idaho, the FY 2015 request will support the completion of operations of the Sodium Bearing Waste Treatment facility. This facility will treat approximately 900,000 gallons of sodium bearing waste stored in tanks that are 35 to 45 years old. The treatment of this waste will enable EM to clean out the final four tanks at the site, and complete treatment of all liquid tank waste at Idaho.

Additionally, Idaho's FY 2015 request will support the requirements of the Idaho Settlement Agreement. These include disposing of remote-handled low-level waste at the Radioactive Waste Management Complex and mixed low-level waste at appropriate off-site disposal facilities, and packaging and characterizing and certifying remote-handled transuranic waste at the Idaho Nuclear Technology and Engineering Center. The request will provide for use of the Advanced Mixed Waste Treatment Facility to ship stored contact-handled transuranic waste, and for receipt, characterization, and certification of a small volume of transuranic waste from other DOE sites that do not have characterization capabilities. The request will also make progress in retrieving targeted waste at the Subsurface Disposal Area under the Accelerated Retrieval Project.

At the Office of River Protection, the FY 2015 budget request is designed to maintain safe operations for the tank farms; achieve regulatory commitments; enable the development of infrastructure necessary to enable waste treatment operations; while continuing construction on the Low-Activity Waste Facility, Balance of Facilities and Analytical Laboratory. Consistent with the Department's revised option for WTP, which is designed to move the WTP toward immobilization of waste as soon as practicable while resolution of technical issues continues, the FY 2015 budget includes support for analysis and preliminary design of an Low Activity Waste Pretreatment System.

At the Savannah River Site, the largest portion of the FY 2015 request supports the Liquid Tank Waste Management Program. The liquid waste tanks pose the highest public, worker, and environmental risk at the site; therefore, stabilization and preparation for disposal are a high funding priority. Scope includes the operation of the Defense Waste Processing Facility and management of the tank farms. In addition, the request supports continued construction of the Salt Waste Processing Facility, and operation of the Actinide Removal Process and Modular Caustic Side Extraction units. These units will be needed until the Salt Waste Processing Facility begins operation. The request also supports the operations of the Saltstone Facility and the Effluent Treatment Facility, and continuation of Saltstone Disposal Unit 6 construction activities.

The FY 2015 request allows the Savannah River site to continue to support the Global Threat Reduction Initiative through continued receipt and storage of foreign and domestic research reactor spent nuclear fuel. The request also supports continued activities to reduce the residual plutonium contamination in Building 235-F as committed in Defense Nuclear Safety Facilities Board Recommendation 2012-1 and processing of aluminum-clad spent (used) nuclear fuel in H Canyon. Additionally, the Savannah River site will continue to dissolve plutonium from K-Area in support of oxide production for MOX feed and will begin receipt of Canadian highly enriched uranium liquid and process highly enriched uranium used nuclear fuel in H-canyon for final disposition.

In FY 2015, the budget request will support the deactivation and decommissioning project at the Portsmouth Gaseous Diffusion Plant in Piketon, Ohio, by providing the site a total of $221,804,000. The majority of the funding request, $125,000,000, will be used for deactivation and decommissioning of gaseous diffusion plant ancillary facilities and systems, disposal of waste, small equipment removal, utility optimizations, and hazardous material abatement. The balance of $35,000,000 will provide for design and construction of an on-site landfill for the disposal of waste expected to be generated from the demolition of the Portsmouth Gaseous Diffusion Plant and associated facilities. In addition, $51,517,000 will be used to continue the safe operation of the DUF6 Conversion facility that converts depleted uranium hexafluoride into a more stable depleted uranium oxide form suitable for reuse or disposition.

In FY 2015, the Paducah site's budget request of $269,773,000 will support the continued transition of the Paducah Gaseous Diffusion Plant from the United States Enrichment Corporation to the Department of Energy after the United States Enrichment Corporation announced its decision to terminate its leased operations of the facility. Of that total, $198,215,000 of the requested funding, will support the continued transition and the initiation and completion of several projects chosen to reduce risks and lifecycle costs, as well as the continued environmental remediation activities in compliance with the Federal Facility Agreement. The balance of the FY 2015 request includes $9,000,000 for the design of the Paducah Potential On-Site Waste Disposal Facility project. This project will provide on-site disposal capacity for anticipated demolition debris and environmental remediation waste, should the on-site facility be selected as the appropriate remedy. Additionally, $51,517,000 is requested for continued safe operation of the DUF6 Conversion facility that converts depleted uranium hexafluoride into a more stable depleted uranium oxide form suitable for reuse or disposition.

The Richland Operations Office planned accomplishments for FY 2015 include the following significant activities: maintain safe operations and site-wide essential services for the Richland River Corridor Cleanup and for the Office of River Protection, continue progress towards Plutonium Finishing Plant cleanout and demolition to Slab-on-Grade by 2016, as well as completing the majority of the River Corridor cleanup, with the exception of the 618-11 burial grounds, Building 324 and its associated waste site, and the 100 K Area. In addition, construction of the KW Basin Sludge Treatment Project will be initiated. Cleanup work is accomplished while maintaining safe and compliant waste management, decontamination and decommissioning, and groundwater capabilities in the Central Plateau.

At Oak Ridge, the FY 2015 request will support the completion of preliminary design for the Mercury Treatment Facility at Outfall 200, continue studying and development of Mercury characterization techniques and remediation technologies, designing and preparation for construction of the Sludge Build-Out capital asset line item project at the Transuranic Waste

Processing Center, which is needed to dispose the sludge wastes stored in the Melton Valley storage tanks, and continue K-27 Building deactivation activities at the East Tennessee Technology Park. The processing and disposal of contact-handled and remote-handled transuranic waste will continue at the Transuranic Waste Processing Center in order to meet the Site Treatment Plan milestone. Additionally, the U-233 direct-disposition activities initiated in FY 2012 will continue in FY 2015 while maintaining Building 3019 in a safe operating condition.

EM continued to achieve major successes with our mature, nation-wide program for the transportation and disposition of transuranic waste at Carlsbad and low-level and mixed low-level waste at Nevada. Since opening the Waste Isolation Pilot Plant, near Carlsbad, New Mexico, EM has sent more than 11,000 shipments of transuranic waste for permanent disposal, safely emplacing nearly 90,000 cubic meters of waste through the end of calendar year 2013. The FY 2015 request will continue to prioritize shipments of transuranic waste from Los Alamos National Laboratory in accordance with the Framework Agreement. In addition, the FY 2015 request will continue to support cleanup activities across the DOE complex by disposing approximately 34,000 cubic meters of low-level waste/mixed low-level waste at Nevada.

Environmental Management
Funding by Congressional Control ($K)

	FY 2013 Current[a]	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
Closure Sites						
Closure Sites Administration	4,943	4,702	0	4,702	4,889	+187
Hanford Site						
Central Plateau Remediation	502,921	512,665	0	512,665	474,292	-38,373
Construction						
15-D-401: Containerized Sludge (KBC Sludge Removal Annex Construction), RL (RL-0012)	0	0	0	0	26,290	+26,290
Total, Central Plateau Remediation	502,921	512,665	0	512,665	500,582	-12,083
Richland Community and Regulatory Support	17,969	19,701	0	19,701	14,701	-5,000
River Corridor and Other Cleanup Operations	356,207	408,634	0	408,634	332,788	-75,846
Total, Hanford Site	**877,097**	**941,000**	**0**	**941,000**	**848,071**	**-92,929**
Idaho National Laboratory						
Idaho Cleanup and Waste Disposition	351,995	383,300	0	383,300	364,293	-19,007
Idaho Community and Regulatory Support	3,771	3,700	0	3,700	2,910	-790
Total, Idaho National Laboratory	**355,766**	**387,000**	**0**	**387,000**	**367,203**	**-19,797**
NNSA Sites						
Lawrence Livermore National Laboratory	1,998	1,476	0	1,476	1,366	-110
Los Alamos National Laboratory	192,033	224,789	0	224,789	196,017	-28,772
Construction						
15-D-406: Hexavalent Chromium Pump and Treatment Remedy Project, LANL (VL-LANL-0030)	0	0	0	0	28,600	+28,600
Total, Los Alamos National Laboratory	192,033	224,789	0	224,789	224,617	-172
Nevada	60,795	61,897	0	61,897	64,851	+2,954
Sandia National Laboratories	2,588	2,814	0	2,814	2,801	-13
Separations Processing Research Unit	21,795	23,700	0	23,700	0	-23,700
Total, NNSA Sites	**279,209**	**314,676**	**0**	**314,676**	**293,635**	**-21,041**
Oak Ridge						
Building 3019	34,025	0	0	0	0	0
OR Cleanup and Disposition	75,804	83,220	0	83,220	71,137	-12,083
Construction						

[a] Funding reflects the transfer of SBIR/STTR from Environmental Management to Science.

	FY 2013 Current[a]	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
15-D-405: Sludge Build-Out, OR (OR-0013B)	0	0	0	0	4,200	+4,200
Total, OR Cleanup and Disposition	75,804	83,220	0	83,220	75,337	-7,883
OR Nuclear Facility D&D	67,746	73,716	0	73,716	73,155	-561
Construction						
14-D-403: Outfall 200 Mercury Treatment Facility, OR (OR-0041)	0	4,608	0	4,608	9,400	+4,792
Total, OR Nuclear Facility D&D	67,746	78,324	0	78,324	82,555	+4,231
OR Reservation Community and Regulatory Support	5,894	4,365	0	4,365	4,365	0
OR Technology Development and Deployment	0	4,091	0	4,091	3,000	-1,091
U233 Disposition Program	0	45,000	0	45,000	41,626	-3,374
Total, Oak Ridge	**183,469**	**215,000**	**0**	**215,000**	**206,883**	**-8,117**
Office of River Protection						
Tank Farm Activities	463,085	520,216	0	520,216	522,000	+1,784
Construction						
15-D-409: Low Activity Waste Pretreatment System, Hanford (ORP-0014)	0	0	0	0	23,000	+23,000
Total, Tank Farm Activities	463,085	520,216	0	520,216	545,000	+24,784
Waste Treatment and Immobilization Plant	0	0	0	0	0	0
Construction						
01-D-16E: Pretreatment Facility, RL	118,927	180,000	0	180,000	115,000	-65,000
01-D-16-A-D: Waste Treatment and Immobilization Plant - Sub-Projects A-D, RL	515,429	510,000	0	510,000	575,000	+65,000
Total, Waste Treatment and Immobilization Plant	634,356	690,000	0	690,000	690,000	0
Total, Office of River Protection	**1,097,441**	**1,210,216**	**0**	**1,210,216**	**1,235,000**	**+24,784**
Savannah River Site						
Radioactive Liquid Tank Waste Stabilization and Disposition	579,144	565,533	0	565,533	553,175	-12,358
Construction						
05-D-405: Salt Waste Processing Facility, SR	106,816	125,000	0	125,000	135,000	+10,000
15-D-402: Saltstone Disposal Unit #6, SR (SR-0014C)	0	0	0	0	34,642	+34,642
Total, Radioactive Liquid Tank Waste Stabilization and Disposition	685,960	690,533	0	690,533	722,817	+32,284
Savannah River Risk Management Operations	397,761	432,491	0	432,491	416,276	-16,215
SR Community and Regulatory Support	11,014	11,210	0	11,210	11,013	-197
Total, Savannah River Site	**1,094,735**	**1,134,234**	**0**	**1,134,234**	**1,150,106**	**+15,872**
Waste Isolation Pilot Plant	197,838	216,193	0	216,193	216,020	-173
Program Support	**18,221**	**17,979**	**0**	**17,979**	**14,979**	**-3,000**
Program Direction	**295,770**	**300,000**	**0**	**300,000**	**280,784**	**-19,216**
Safeguards and Security	**231,757**	**241,000**	**0**	**241,000**	**233,961**	**-7,039**

	FY 2013 Current[a]	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Technology Development and Deployment						
Mission Support	**9,808**	**18,000**	**0**	**18,000**	**13,007**	**-4,993**
Federal Contribution to the Uranium Enrichment D&D Fund	**0**	**0**	**0**	**0**	**463,000**	**+463,000**
Total, Defense Environmental Cleanup	**4,646,054**	**5,000,000**	**0**	**5,000,000**	**5,327,538**	**+327,538**
Non-Defense Environmental Cleanup						
Fast Flux Test Reactor Facility D&D	2,562	2,542	0	2,542	2,562	+20
Gaseous Diffusion Plants						
Paducah Gaseous Diffusion Plant	49,702	46,870	0	46,870	52,886	+6,016
Portsmouth Gaseous Diffusion Plant	45,634	49,352	0	49,352	51,517	+2,165
Total, Gaseous Diffusion Plants	**95,336**	**96,222**	**0**	**96,222**	**104,403**	**+8,181**
Small Sites						
Brookhaven National Laboratory	7,471	0	0	0	0	0
Closure Sites Administration	0	0	0	0	8,408	+8,408
DOE-Sponsored Facilities (per P.L. 112-74)	9,478	17,786	0	17,786	0	-17,786
Energy Technology Engineering Center	8,868	9,404	0	9,404	8,959	-445
Idaho National Laboratory	4,863	4,993	0	4,993	4,900	-93
Moab	31,480	38,000	0	38,000	35,837	-2,163
Oak Ridge	0	0	0	0	2,119	+2,119
SLAC National Accelerator Laboratory	3,793	0	0	0	0	0
Southwest Experimental Fast Oxide Reactor (SEFOR)	0	1,000	0	1,000	0	-1,000
Total, Small Sites	**65,953**	**71,183**	**0**	**71,183**	**60,223**	**-10,960**
West Valley Demonstration Project	**59,606**	**64,000**	**0**	**64,000**	**58,986**	**-5,014**
Total, Non-Defense Environmental Cleanup	**223,457**	**233,947**	**0**	**233,947**	**226,174**	**-7,773**
Uranium Enrichment Decontamination and Decommissioning Fund						
Oak Ridge	200,366	195,741	0	195,741	137,898	-57,843
Paducah	92,534	265,220	0	265,220	207,215	-58,005
Portsmouth	155,331	137,613	0	137,613	160,000	+22,387
Pension and Community and Regulatory Support						
Oak Ridge	0	0	0	0	21,693	+21,693
Paducah Gaseous Diffusion Plant	0	0	0	0	2,375	+2,375
Portsmouth Gaseous Diffusion Plant	0	0	0	0	1,795	+1,795
Total, Pension and Community and Regulatory Support	**0**	**0**	**0**	**0**	**25,863**	**+25,863**
Total, Uranium Enrichment Decontamination and Decommissioning Fund	**448,231**	**598,574**	**0**	**598,574**	**530,976**	**-67,598**

	FY 2013 Current[a]	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Total, Environmental Management	**5,317,742**	**5,832,521**	**0**	**5,832,521**	**6,084,688**	**+252,167**
D&D Fund Offset	0	0	0	0	-463,000	-463,000
Use of Prior Year (Defense Environmental Cleanup)	-19,000	0	0	0	0	0
Use of Prior year (Non-Defense Environmental Cleanup)	0	-2,206	0	-2,206	0	+2,206
Total, Environmental Management	**5,298,742**	**5,830,315**	**0**	**5,830,315**	**5,621,688**	**-208,627**
Federal FTEs	**1,413**	**1,398**	**0**	**1,398**	**1,500**	**+102**

SBIR/STTR:

- FY 2013 Transferred: SBIR: $273; STTR: $35
- FY 2014 Projected: SBIR $619; STTR $88
- FY 2015 Request: SBIR $464; STTR $64

Environmental Management
Funding by Budget Chapters ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Carlsbad	202,293	221,170	0	221,170	220,475	-695
Idaho	360,629	391,993	0	391,993	372,103	-19,890
Oak Ridge	402,680	429,541	0	429,541	384,975	-44,566
Paducah	149,533	324,524	0	324,524	269,773	-54,751
Portsmouth	217,437	199,465	0	199,465	221,804	+22,339
Richland	943,327	1,012,620	0	1,012,620	914,301	-98,319
River Protection	1,097,441	1,210,216	0	1,210,216	1,235,000	+24,784
Savannah River	1,214,284	1,255,430	0	1,255,430	1,282,302	+26,872
Lawrence Livermore National Laboratory	1,998	1,476	0	1,476	1,366	-110
Los Alamos National Laboratory	192,033	224,789	0	224,789	224,617	-172
Nevada	60,795	61,897	0	61,897	64,851	+2,954
Sandia Site Office	2,588	2,814	0	2,814	2,801	-13
Separations Process Research Unit (SPRU)	21,795	23,700	0	23,700	0	-23,700
West Valley Demonstration Project	61,077	66,015	0	66,015	60,457	-5,558
Brookhaven National Laboratory	7,471	0	0	0	0	0
Energy Technology Engineering Center	8,868	9,404	0	9,404	8,959	-445
Moab	31,480	38,000	0	38,000	35,837	-2,163
SLAC National Accelerator Laboratory	3,793	0	0	0	0	0
Other Sites						
Closure Sites Administration	4,943	4,702	0	4,702	13,297	+8,595
DOE-Sponsored Facilities (per P.L. 112-74)	9,478	17,786	0	17,786	0	-17,786
Southwest Experimental Fast Oxide Reactor (SEFOR)	0	1,000	0	1,000	0	-1,000
Total, Other Sites	14,421	23,488	0	23,488	13,297	-10,191
Program Direction	295,770	300,000	0	300,000	280,784	-19,216
D&D Fund Deposit	0	0	0	0	463,000	+463,000
Mission Support	28,029	35,979	0	35,979	27,986	-7,993
Subtotal, Environmental Management	**5,317,742**	**5,832,521**	**0**	**5,832,521**	**6,084,688**	**+252,167**

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
D&D Fund Offset	0	0	0	0	-463,000	-463,000
Use of Prior Year (Defense Environmental Cleanup)	-19,000	0	0	0	0	0
Use of Prior year (Non-Defense Environmental Cleanup)	0	-2,206	0	-2,206	0	+2,206
Total, Environmental Management	**5,298,742**	**5,830,315**	**0**	**5,830,315**	**5,621,688**	**-208,627**

Environmental Management
Capital Summary ($K)

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Current
Capital Operating Expenses Summary (including (Major Items of Equipment (MIE))							
Capital Equipment > $500K (including MIE)	0	0	0	0	0	0	0
Plant Projects (GPP and IGPP) (<$10M)	**0**	**364**	**1,788**	**10,029**	**10,029**	**914**	**-9,115**
Total, Capital Operating Expenses	**0**	**364**	**1,788**	**10,029**	**10,029**	**914**	**-9,115**
Capital Equipment > $500K (including MIE)	0	0	0	0	0	0	0
Total, Capital Equipment (including MIE)	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Plant Projects (GPP and IGPP) (Total Estimated Cost (TEC) <$10M)							
Oak Ridge							
SWSA 5	0	364	1,294	1,422	1,422	0	-1,422
Site Access Control Buildout	0	0	234	0	0	0	0
Total, Oak Ridge	**0**	**364**	**1,528**	**1,422**	**1,422**	**0**	**-1,422**
Richland							
ISS SSE Construction and Erection (105KE)	0	0	260	0	0	0	0
Total, Richland	**0**	**0**	**260**	**0**	**0**	**0**	**0**
Waste Isolation Pilot Plant							
Upgrade Site PA system	0	0	0	250	250	0	-250
Sandblast and Repaint Salt Hoist Headframe	0	0	0	0	0	220	+220
Sandblast and Repaint AIS Headframe	0	0	0	110	110	0	-110
Replace obsolete equipment on Met Tower	0	0	0	200	200	0	-200
Replacement of Central UPS	0	0	0	259	259	0	-259

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Current
Upgrade Automatic Guided Vehicles software	0	0	0	0	0	90	+90
Repair/Refurbish 140/25 Ton for Continuous Use	0	0	0	140	140	0	-140
Repair/Refurbish Pivot Rail Equipment Salt Hoist	0	0	0	0	0	4	+4
Upgrade Remote Handled Waste Swipe Robot	0	0	0	0	0	100	+100
Replace Facility Cask Loading Room Turntable	0	0	0	148	148	0	-148
Refurbish Bldg 451 – Skin, Interior, Showers, Locker, HVAC	0	0	0	0	0	500	+500
New Support Building (estimate sq. ft. 50,000)	0	0	0	7,500	7,500	0	-7,500
Total, Waste Isolation Pilot Plant	**0**	**0**	**0**	**8,607**	**8,607**	**914**	**-7,693**
Total, Plant Projects (GPP and IGPP) (Total Estimated (TEC) <$10M	**0**	**364**	**1,788**	**10,029**	**10,029**	**914**	**-9,115**
Total, Capital Summary	**0**	**364**	**1,788**	**10,029**	**10,029**	**914**	**-9,115**

Environmental Management
Construction Projects Summary ($K)

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
01-D-416, Waste Treatment and Immobilization Plant, Hanford WA							
01-D-16A-D WTP Subprojects A-D							
Total Estimate Cost (TEC)	7,063,535	4,776,133	515,429	510,000	510,000	575,000	+65,000
Other Project Costs (OPC)	0	0	0	0	0	0	+0
01-D-16E Pretreatment Facility							
Total Estimate Cost (TEC)	5,199,465	3,097,123	118,927	180,000	180,000	115,000	-$65,000
Other Project Costs (OPC)	0	0	0	0	0	0	+0
Total Project Cost (TPC) 01-D-416	**12,263,000**	**7,873,256**	**634,356**	**690,000**	**690,000**	**690,000**	**+0**
05-D-405, Salt Waste Processing Facility, Aiken, SC							
Total Estimate Cost (TEC)	1,422,122	1,150,613	72,509	92,000	92,000	107,000	+15,000
Other Project Costs (OPC)	171,983	103,020	7,963	33,000	33,000	28,000	-5,000
Total Project Cost (TPC) 05-D-405	**1,594,105**	**1,253,633**	**80,472**	**125,000**	**125,000**	**135,000**	**+10,000**
14-D-403, Outfall 200 Mercury Treatment Facility, OR (OR-0041)							
Total Estimate Cost (TEC)	TBD	0	0	4,608	4,608	9,400	+4,792
Other Project Costs (OPC)	TBD	0	0	0	0	1,000	+1,000
Total Project Cost (TPC) 15-D-403	**TBD**	**0**	**0**	**4,608**	**4,608**	**10,400**	**+5,792**
KW Basin Sludge Removal Project, Hanford Washington (RL-0012)							
SNF Stabilization and Disposition (RL-0012)							
Total Estimate Cost (TEC)	230,355	45,975	25,245	21,946	21,946	0	-21,946
Other Project Costs (OPC)	77,918	38,022	4,382	3,465	3,465	0	-3,465
Subtotal, KW Basin Sludge Removal Project, Hanford Washington (RL-0012)	**308,273**	**83,997**	**29,627**	**25,411**	**25,411**	**0**	**-25,411**

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
15-D-401, KW Basin Sludge Removal Project, Hanford Washington (RL-0012)							
Total Estimate Cost (TEC)	0	0	0	0	0	26,290	+26,290
Other Project Costs (OPC)	0	0	0	0	0	5,344	+5,344
Subtotal, 15-D-401, KW Basin Sludge Removal Project, Hanford Washington (RL-0012)	**0**	**0**	**0**	**0**	**0**	**31,634**	**+31,634**
Total Project Cost (TPC) 15-D401	**308,273**	**83,997**	**29,627**	**25,411**	**25,411**	**31,634**	**+6,223**
Saltstone Disposal Unit #6, SR (SR-0014C)							
Savannah River Tank Waste (SR-0014C)							
Total Estimate Cost (TEC)	127,628	3,984	12,413	34,618	34,618	0	-34,618
Other Project Costs (OPC)	15,572	3,753	1,995	2,178	2,178	0	-2,178
Subtotal, Saltstone Disposal Unit #6, SR (SR-0014C)	**143,200**	**7,737**	**14,408**	**36,796**	**36,796**	**0**	**-36,796**
15-D-402, Saltstone Disposal Unit #6, SR (SR-0014C)							
Total Estimate Cost (TEC)	0	0	0	0	0	34,642	+34,642
Other Project Costs (OPC)	0	0	0	0	0	2,694	+2,694
Subtotal, 15-D-402, Saltstone Disposal Unit #6, SR (SR-0014C)	**0**	**0**	**0**	**0**	**0**	**37,336**	**+37,336**
Total Project Cost (TPC) 15-D-402	**143,200**	**7,737**	**14,408**	**37,300**	**37,300**	**37,336**	**+36**
Sludge Build Out, OR (OR-0013B)							
Oak Ridge Solid Waste (OR-0013B)							
Total Estimate Cost (TEC)	TBD	0	0	0	0	0	+0
Other Project Costs (OPC)	TBD	10,177	5,428	7,000	7,000	0	-7,000
Subtotal, Sludge Build Out, OR-0013B	**TBD**	**10,177**	**5,428**	**7,000**	**7,000**	**0**	**-7,000**
15-D-405, Sludge Build Out, OR (OR-0013B)							
Total Estimate Cost (TEC)	TBD	0	0	0	0	4,200	+4,200
Other Project Costs (OPC)	TBD	0	0	0	0	8,900	+8,900
Subtotal, 15-D-405, Sludge Build Out, OR (OR-0013B)	**TBD**	**0**	**0**	**0**	**0**	**13,100**	**+13,100**
Total Project Cost (TPC) 15-D-405	**TBD**	**10,177**	**5,428**	**7,000**	**7,000**	**13,100**	**+6,100**

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Hexavalent Chromium Pump and Treatment Remedy Project, LANL (VL-LANL-0030)							
LANL Soil and Water (VL-LANL-0030)							
Total Estimate Cost (TEC)	45,600	0	0	0	0	0	+0
Other Project Costs (OPC)	4,400	0	0	500	500	0	-$500
Subtotal, Hexavalent Chromium Pump and Treatment Remedy Project, LANL (VL-LANL-0030)	**50,000**	**0**	**0**	**500**	**500**	**0**	**-$500**
15-D-406, Hexavalent Chromium Pump and Treatment Remedy Project, LANL (VL-LANL-0030)							
Total Estimate Cost (TEC)	0	0	0	0	0	28,600	+28,600
Other Project Costs (OPC)	0	0	0	0	0	2,500	+2,500
Subtotal, 15-D-406, Hexavalent Chromium Pump and Treatment Remedy Project, LANL (VL-LANL-0030)	0	0	0	0	0	31,100	+31,100
Total Project Cost (TPC) 15-D-406	50,000	0	0	500	500	31,100	+30,600
15-U-407, On Site Waste Disposal Facility (PA-0040)							
Total Estimate Cost (TEC)	281,986	0	0	0	0	8,486	+8,486
Other Project Costs (OPC)	8,014	0	0	0	0	514	+514
Total Project Cost (TPC) 15-U-407	**290,000**	**0**	**0**	**0**	**0**	**9,000**	**+9,000**
15-U-408, On Site Waste Disposal Facility (PO-0040)							
Total Estimate Cost (TEC)	287,326	0	0	0	0	28,539	+28,539
Other Project Costs (OPC)	22,674	0	0	0	0	6,461	+6,461
Total Project Cost (TPC) 15-U-408	**310,000**	**0**	**0**	**0**	**0**	**35,000**	**+35,000**
15-D-409, Low Activity Waste Pretreatment System (Hanford) (ORP-0014)							
Total Estimate Cost (TEC)	TBD	0	0	0	0	23,000	+23,000
Other Project Costs (OPC)	TBD	0	0	10,000	10,000	0	-10,000
Total Project Cost (TPC) 15-D-409	**TBD**	**0**	**0**	**10,000**	**10,000**	**23,000**	**+13,000**

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Total All Construction Projects							
Total Estimate Cost (TEC)	14,658,017	9,073,828	744,523	843,172	843,172	960,157	+116,985
Other Project Costs (OPC)	300,561	154,972	19,768	56,143	56,143	55,413	-730
Total Project Cost (TPC) All Construction Projects	**14,958,578**	**9,228,800**	**764,291**	**899,315**	**899,315**	**1,015,570**	**+116,255**

ANCILLARY TABLES

Environmental Management

Appropriation/Fund Type/Site ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 Request vs FY 2014 Enacted
Defense Environmental Cleanup						
Operating						
Carlsbad						
CB-0020 - S&S	4,455	4,977	0	4,977	4,455	-522
CB-0080 - Operate Facility	137,157	153,516	0	153,516	145,316	-8,200
CB-0081 - Characterization	37,105	33,200	0	33,200	41,647	8,447
CB-0090 - Transportation	23,576	29,477	0	29,477	29,057	-420
	202,293	221,170	0	221,170	220,475	-695
Idaho						
ID-0012B-D - SNF - 2012	7,300	7,450	0	7,450	12,400	4,950
ID-0013 - Solid Waste	187,258	212,980	0	212,980	191,800	-21,180
ID-0014B - Tank Waste	110,950	106,600	0	106,600	84,650	-21,950
ID-0030B - Soil and Water	46,487	56,270	0	56,270	75,443	19,173
ID-0100 - Comm. & Reg.	3,771	3,700	0	3,700	2,910	-790
	355,766	387,000	0	387,000	367,203	-19,797
Oak Ridge						
OR-0011D - U233 Disposition Program	0	45,000	0	45,000	41,626	-3,374
OR-0011Z - U-233	34,025	0	0	0	0	0
OR-0013B - Solid Waste	75,804	83,220	0	83,220	71,137	-12,083
OR-0020 - S&S	18,845	18,800	0	18,800	16,382	-2,418
OR-0041 - D&D - Y-12	27,446	35,229	0	35,229	34,666	-563
OR-0042 - D&D - ORNL	40,198	38,387	0	38,387	38,387	0
OR-0043 - D&D - ETTP	102	100	0	100	102	2
OR-0100 - Comm. & Reg.	5,894	4,365	0	4,365	4,365	0
OR-TD-0100 - Tech Dev	0	4,091	0	4,091	3,000	-1,091
	202,314	229,192	0	229,192	209,665	-19,527
Paducah						
PA-0020 - S&S	7,297	12,434	0	12,434	7,297	-5,137

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 Request vs FY 2014 Enacted
Portsmouth						
PO-0020 - S&S	16,472	12,500	0	12,500	8,492	-4,008
Richland						
RL-0011 - PFP	160,056	142,670	0	142,670	168,228	25,558
RL-0012 - SNF	89,506	98,369	0	98,369	76,777	-21,592
RL-0013C - Solid Waste	118,480	130,126	0	130,126	112,371	-17,755
RL-0020 - S&S	63,668	69,078	0	69,078	63,668	-5,410
RL-0030 - Soil & Water	134,879	141,500	0	141,500	116,916	-24,584
RL-0040 - D&D Rem. Of Hanford	61,943	70,992	0	70,992	65,922	-5,070
RL-0041 - D&D River Corridor	294,264	337,642	0	337,642	266,866	-70,776
RL-0100 - Comm. & Reg.	17,969	19,701	0	19,701	14,701	-5,000
	940,765	1,010,078	0	1,010,078	885,449	-124,629
River Protection						
ORP-0014 - Tank Waste	463,085	520,216	0	520,216	522,000	1,784
Savannah River						
SR-0011C - Nuclear Material	264,903	272,000	0	272,000	259,910	-12,090
SR-0012 - SNF	40,259	44,684	0	44,684	42,707	-1,977
SR-0013 - Solid Waste	42,480	60,369	0	60,369	47,590	-12,779
SR-0014C - Tank Waste	579,144	565,533	0	565,533	553,175	-12,358
SR-0020 - S&S	119,549	121,196	0	121,196	132,196	11,000
SR-0030 - Soil and Water	50,119	55,438	0	55,438	66,069	10,631
SR-0100 - Comm. & Reg.	11,014	11,210	0	11,210	11,013	-197
	1,107,468	1,130,430	0	1,130,430	1,112,660	-17,770
Lawrence Livermore National Laboratory						
VL-FOO-0013B-D - Solid Waste	237	238	0	238	238	0
VL-LLNL-0031 - Soil and Water	1,761	1,238	0	1,238	1,128	-110
	1,998	1,476	0	1,476	1,366	-110
Los Alamos National Laboratory						
VL-FAO-0101 - AIP	2,355	4,103	0	4,103	2,355	-1,748
VL-LANL-0013 - Solid Waste	124,843	119,686	0	119,686	90,000	-29,686
VL-LANL-0030 - Soil and Water	64,835	100,000	0	100,000	94,662	-5,338
VL-LANL-0040-D - D&D	0	1,000	0	1,000	9,000	8,000
	192,033	224,789	0	224,789	196,017	-28,772

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 Request vs FY 2014 Enacted
Nevada						
VL-NV-0030 - Soil and Water	45,951	41,826	0	41,826	44,416	2,590
VL-NV-0080 - Waste Disposal Fac.	10,830	16,578	0	16,578	16,940	362
VL-NV-0100 - Comm. & Reg.	4,014	3,493	0	3,493	3,495	2
	60,795	61,897	0	61,897	64,851	2,954
Sandia Site Office						
VL-SN-0030 - Soil and Water	2,588	2,814	0	2,814	2,801	-13
Separations Process Research Unit						
VL-SPRU-0040 - D&D	21,795	23,700	0	23,700	0	-23,700
West Valley Demonstration Project						
OH-WV-0020 - S&S	1,471	2,015	0	2,015	1,471	-544
Other Sites						
CBC-0100-FN - Closure Admin Fernald	0	1,500	0	1,500	1,500	0
CBC-0100-RF - Closure Admin RF	4,943	3,202	0	3,202	3,389	187
	4,943	4,702	0	4,702	4,889	187
Mission Support						
EM-HBCU0100 - Minority Serving Institution Partnerships Program	8,095	8,000	0	8,000	8,000	0
HQ-MS-0100 - Program Support	10,126	9,979	0	9,979	6,979	-3,000
HQ-TD-0100 - TDD	9,808	18,000	0	18,000	13,007	-4,993
	28,029	35,979	0	35,979	27,986	-7,993
Program Direction						
HQ-PD-0100 - Program Direction	295,770	300,000	0	300,000	280,784	-19,216
D&D Fund Deposit						
HQ-DD-0100 - D&D Fund	0	0	0	0	463,000	463,000
Subtotal, Operating	3,904,882	4,180,392	0	4,180,392	4,376,406	196,014

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 Request vs FY 2014 Enacted
Line Item Construction						
Oak Ridge						
OR-0013B - Solid Waste	0	0	0	0	4,200	4,200
OR-0041 - D&D - Y-12	0	4,608	0	4,608	9,400	4,792
	0	4,608	0	4,608	13,600	8,992
Richland						
RL-0012 - SNF Stabilization and Disposition	0	0	0	0	26,290	26,290
River Protection						
ORP-0014 - Tank Waste	0	0	0	0	23,000	23,000
ORP-0060 - Waste Treatment Plant	634,356	690,000	0	690,000	690,000	0
	634,356	690,000	0	690,000	713,000	23,000
Savannah River						
SR-0014C - Tank Waste	106,816	125,000	0	125,000	169,642	44,642
Los Alamos National Laboratory						
VL-LANL-0030 - Soil and Water	0	0	0	0	28,600	28,600
Subtotal, Line Item Construction	741,172	819,608	0	819,608	951,132	131,524
Total, Defense Environmental Cleanup	4,646,054	5,000,000	0	5,000,000	5,327,538	327,538
Non-Defense Environmental Cleanup						
Operating						
Brookhaven National Laboratory						
BRNL-0030 - Soil and Water	7,471	0	0	0	0	0
Energy Technology Engineering Center						
CBC-ETEC-0040 - D&D	8,868	9,404	0	9,404	8,959	-445
Idaho						
ID-0012B-N - SNF	4,863	4,993	0	4,993	4,900	-93
Moab						
CBC-MOAB-0031 - Soil and Water	31,480	38,000	0	38,000	35,837	-2,163

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 Request vs FY 2014 Enacted
Oak Ridge						
OR-0104 - Comm and Reg	0	0	0	0	2,119	2,119
Other Sites						
CBC-LBNL-0040 - D&D	9,478	17,786	0	17,786	0	-17,786
CBC-ND-0100 - Closure Admin ND Sites	0	0	0	0	8,408	8,408
SEFOR	0	1,000	0	1,000	0	-1,000
	9,478	18,786	0	18,786	8,408	-10,378
Paducah						
PA-0011 - NM S&D	1,369	1,369	0	1,369	1,369	0
PA-0011X - DUF6	48,333	45,501	0	45,501	51,517	6,016
	49,702	46,870	0	46,870	52,886	6,016
Portsmouth						
PO-0011X - DUF6	45,634	49,352	0	49,352	51,517	2,165
Richland						
RL-0042 - FFTF	2,562	2,542	0	2,542	2,562	20
SLAC National Accelerator Laboratory						
CBC-SLAC-0030 - Soil and Water	3,793	0	0	0	0	0
West Valley Demonstration Project						
OH-WV-0013 - Solid Waste	13,900	15,500	0	15,500	7,938	-7,562
OH-WV-0040 - D&D	45,706	48,500	0	48,500	51,048	2,548
	59,606	64,000	0	64,000	58,986	-5,014
Subtotal, Operating	223,457	233,947	0	233,947	226,174	-7,773
Total, Non-Defense Environmental Cleanup	223,457	233,947	0	233,947	226,174	-7,773
Uranium Enrichment Decontamination and Decommissioning Fund						
Operating						
Oak Ridge						
OR-0040 - D&D - ETTP	177,366	176,815	0	176,815	137,898	-38,917
OR-0102 - Liab. & Admin.	23,000	18,926	0	18,926	21,693	2,767
	200,366	195,741	0	195,741	159,591	-36,150

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 Request vs FY 2014 Enacted
Paducah						
PA-0040 - D&D	90,009	262,057	0	262,057	198,729	-63,328
PA-0102 - Liab. & Admin.	2,525	1,438	0	1,438	650	-788
PA-0103 - Comm. & Reg.	0	1,725	0	1,725	1,725	0
	92,534	265,220	0	265,220	201,104	-64,116
Portsmouth						
PO-0040 - D&D	153,337	135,818	0	135,818	131,461	-4,357
PO-0103 - Liab. & Admin.	775	775	0	775	775	0
PO-0104 - Comm. & Reg.	1,219	1,020	0	1,020	1,020	0
	155,331	137,613	0	137,613	133,256	-4,357
Subtotal, Operating	448,231	598,574	0	598,574	493,951	-104,623
Line Item Construction						
Paducah						
PA-0040 - D&D	0	0	0	0	8,486	8,486
Portsmouth						
PO-0040 - D&D	0	0	0	0	28,539	28,539
Subtotal, Line Item Construction	0	0	0	0	37,025	37,025
Total, UE D&D Fund	448,231	598,574	0	598,574	530,976	-67,598
Subtotal, Environmental Management	5,317,742	5,832,521	0	5,832,521	6,084,688	252,167
D&D Fund Offset	0	0	0	0	-463,000	-463,000
Use of Prior Year (Defense)	-19,000	0	0	0	0	0
Use of Prior Year (Non-Defense)	0	-2,206	0	-2,206	0	2,206
Total, Environmental Cleanup	5,298,742	5,830,315	0	5,830,315	5,621,688	-208,627

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 Request vs FY 2014 Enacted
Summary						
Defense						
Operating	3,904,882	4,180,392	0	4,180,392	4,376,406	196,014
Line Item Construction	741,172	819,608	0	819,608	951,132	131,524
Subtotal, Defense	4,646,054	5,000,000	0	5,000,000	5,327,538	327,538
Non-Defense						
Operating	223,457	233,947	0	233,947	226,174	-7,773
Line Item Construction	0	0	0	0	0	0
Subtotal, Non-Defense	223,457	233,947	0	233,947	226,174	-7,773
UED&D						
Operating	448,231	598,574	0	598,574	493,951	-104,623
Line Item Construction	0	0	0	0	37,025	37,025
Subtotal, UED&D	448,231	598,574	0	598,574	530,976	-67,598
Subtotal, Environmental Management						
Offsets	-19,000	-2,206	0	-2,206	-463,000	-460,794
Total, Environmental Management	5,298,742	5,830,315	0	5,830,315	5,621,688	-208,627

Total Operating	4,576,570	5,012,913	0	5,012,913	5,096,531	83,618
Total Line Item Construction	741,172	819,608	0	819,608	988,157	168,549
Offsets	-19,000	-2,206	0	-2,206	-463,000	-460,794
Total, Environmental Management	5,298,742	5,830,315	0	5,830,315	5,621,688	-208,627

Environmental Management Federal Staffing

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Carlsbad	50	51	0	51	51	0
Idaho	43	40	0	40	40	0
Oak Ridge	73	72	0	72	72	0
Portsmouth/Paducah Project Office	51	52	0	52	57	+5
Richland	248	251	0	251	251	0
River Protection	137	137	0	137	158	+21
Savannah River	275	269	0	269	284	+15
Small Sites	31	28	0	28	28	0
Nevada Site Office	19	19	0	19	19	0
Los Alamos Site Office	22	22	0	22	22	0
Subtotal, Field, Full-Time Equivalents	949	941	0	941	982	+41
Headquarters Operations	312	308	0	308	308	0
Consolidated Business Center	152	149	0	149	210	+61
Total, Field, Full-Time Equivalents	1,413	1,398	0	1,398	1,500	+102

[a]Corporate Performance Measures – EM Totals

	Cumulative FY 2013 Actual	Cumulative FY 2014 Target	Cumulative FY 2015 Target	Life-cycle Estimate
Geographic Sites Eliminated (number of sites)	90	91	91	107
Plutonium Metal or Oxide packaged for long-term storage (Number of Containers)	5,089	5,089	5,089	5,089
Enriched Uranium packaged for disposition (Number of Containers)	8,016	8,016	8,016	8,198
Plutonium or Uranium Residues packaged for disposition (Kilograms of Bulk)	107,828	107,828	107,828	107,828
Depleted and Other Uranium packaged for disposition (Metric Tons)	46,030	68,730	100,230	737,514
Liquid Waste in Inventory eliminated (Thousands of Gallons)	6,133	7,343	8,833	90,814
Liquid Waste Tanks closed (Number of Tanks)	11	13	13	239
High-Level Waste packaged for final disposition (Number of Containers)	4,028	4,153	4,273	24,134
Spent Nuclear Fuel packaged for final disposition (Metric Tons of Heavy Metal)	2,128	2,128	2,128	2,450
Transuranic Waste Dispositioned (Cubic meters) - CH	95,721	102,112	109,890	141,237
Transuranic Waste Dispositioned (Cubic meters) - RH	295	479	724	7,339
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	1,265,992	1,298,854	1,310,184	1,582,842
Material Access Areas eliminated (Number of Material Access Areas)	30	30	30	35
Nuclear Facility Completions (Number of Facilities)	131	138	141	489
Radioactive Facility Completions (Number of Facilities)	555	561	566	1,029
Industrial Facility Completions (Number of Facilities)	2,055	2,070	2,084	4,134
Remediation Complete (Number of Release Sites)	7,849	8,035	8,165	10,860

[a] Performance measures are currently being updated.

[a]Corporate Performance Measures – EM Totals

	Cumulative FY 2013 Actual	Cumulative FY 2014 Target	Cumulative FY 2015 Target	Life-cycle Estimate
All Other Sites				
California Site Support (Non-Defense)				
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	272	272	272	272
Remediation Complete (Number of Release Sites)	3	3	3	3
Ames Laboratory				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Argonne National Laboratory-East				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Radioactive Facility Completions (Number of Facilities)	80	80	80	80
Remediation Complete (Number of Release Sites)	443	443	443	443
Transuranic Waste Dispositioned (Cubic meters) - CH	22	22	22	22
Transuranic Waste Dispositioned (Cubic meters) - RH	21	21	21	21
Brookhaven National Laboratory				
Geographic Sites Eliminated (number of sites)	0	0	0	1
Nuclear Facility Completions (Number of Facilities)	1	1	1	1
Radioactive Facility Completions (Number of Facilities)	13	13	13	13
Remediation Complete (Number of Release Sites)	77	77	77	77
Chicago Operations Office				
Geographic Sites Eliminated (number of sites)	3	3	3	3
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	537	537	537	537
Remediation Complete (Number of Release Sites)	30	30	30	30
Energy Technology Engineering Center				
Geographic Sites Eliminated (number of sites)	0	0	0	1
Industrial Facility Completions (Number of Facilities)	29	29	29	31
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	1,895	1,895	1,895	1,895
Radioactive Facility Completions (Number of Facilities)	5	5	5	7
Remediation Complete (Number of Release Sites)	4	4	4	14
Fermi National Accelerator Laboratory				
Geographic Sites Eliminated (number of sites)	1	1	1	1
General Atomics				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Legacy and Newly Generated Low-Level and Mixed	1,716	1,716	1,716	1,716

[a] Performance measures are currently being updated.

	Cumulative FY 2013 Actual	Cumulative FY 2014 Target	Cumulative FY 2015 Target	Life-cycle Estimate
Low-Level Waste disposed (Cubic meters)				
Remediation Complete (Number of Release Sites)	2	2	2	2
Spent Nuclear Fuel packaged for final disposition (Metric Tons of Heavy Metal)	1	1	1	1
General Electric				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Geothermal Test Facility				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Grand Junction				
Geographic Sites Eliminated (number of sites)	2	2	2	2
Inhalation Toxicology Laboratory				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	359	359	359	359
Remediation Complete (Number of Release Sites)	9	9	9	9
Laboratory for Energy-Related Health Research				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Industrial Facility Completions (Number of Facilities)	2	2	2	2
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	944	944	944	944
Remediation Complete (Number of Release Sites)	16	16	16	16
Lawrence Berkeley National Laboratory				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Remediation Complete (Number of Release Sites)	194	194	194	194
Moab				
Geographic Sites Eliminated (number of sites)	0	0	0	1
Offsites				
Geographic Sites Eliminated (number of sites)	2	2	2	2
Princeton Plasma Physics Laboratory				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Stanford Linear Accelerator Center				
Geographic Sites Eliminated (number of sites)	0	1	1	1
Remediation Complete (Number of Release Sites)	43	57	57	57
Oak Ridge				
Oak Ridge				
Geographic Sites Eliminated (number of sites)	2	2	2	2
Industrial Facility Completions (Number of Facilities)	418	425	426	641
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	199,427	199,855	199,977	200,612

	Cumulative FY 2013 Actual	Cumulative FY 2014 Target	Cumulative FY 2015 Target	Life-cycle Estimate
Nuclear Facility Completions (Number of Facilities)	9	9	10	26
Radioactive Facility Completions (Number of Facilities)	58	58	58	101
Remediation Complete (Number of Release Sites)	450	450	450	692
Transuranic Waste Dispositioned (Cubic meters) - CH	972	1,160	1,361	1,502
Transuranic Waste Dispositioned (Cubic meters) - RH	110	290	485	600
FUSRAP				
Geographic Sites Eliminated (number of sites)	25	25	25	25
Oak Ridge Reservation				
Geographic Sites Eliminated (number of sites)	0	0	0	1
Weldon Spring Site				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Headquarters				
Headquarters				
Geographic Sites Eliminated (number of sites)	24	24	24	24
NNSA Sites				
Nevada Offsites				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Nevada National Security Site				
Geographic Sites Eliminated (number of sites)	0	0	0	1
Industrial Facility Completions (Number of Facilities)	1	1	1	1
Radioactive Facility Completions (Number of Facilities)	10	10	10	11
Remediation Complete (Number of Release Sites)	1,168	1,184	1,219	2,106
Transuranic Waste Dispositioned (Cubic meters) - CH	1,246	1,246	1,246	1,246
Kansas City Plant				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Remediation Complete (Number of Release Sites)	43	43	43	43
Lawrence Livermore National Laboratory				
Geographic Sites Eliminated (number of sites)	1	1	1	2
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	5,312	5,312	5,312	5,312
Remediation Complete (Number of Release Sites)	194	194	194	198
Transuranic Waste Dispositioned (Cubic meters) - CH	125	125	125	125
Los Alamos National Laboratory				
Geographic Sites Eliminated (number of sites)	0	0	0	1
Industrial Facility Completions (Number of Facilities)	6	6	6	6
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	9,439	9,447	9,447	9,447
Nuclear Facility Completions (Number of Facilities)	1	1	1	1
Radioactive Facility Completions (Number of	19	19	21	101

	Cumulative FY 2013 Actual	Cumulative FY 2014 Target	Cumulative FY 2015 Target	Life-cycle Estimate
Facilities)				
Remediation Complete (Number of Release Sites)	1,562	1,658	1,658	1,906
Transuranic Waste Dispositioned (Cubic meters) - CH	6,134	7,094	7,344	9,489
Transuranic Waste Dispositioned (Cubic meters) - RH	16	16	16	94
New Mexico Site Support				
Geographic Sites Eliminated (number of sites)	5	5	5	5
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	1,319	1,319	1,319	1,319
Remediation Complete (Number of Release Sites)	155	155	155	155
NNSA Service Center				
Geographic Sites Eliminated (number of sites)	1	1	1	2
Nuclear Facility Completions (Number of Facilities)	0	6	6	6
Remediation Complete (Number of Release Sites)	6	7	7	7
Pantex Plant				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Industrial Facility Completions (Number of Facilities)	4	4	4	4
Remediation Complete (Number of Release Sites)	237	237	237	237
Sandia National Laboratory				
Geographic Sites Eliminated (number of sites)	1	1	1	2
Radioactive Facility Completions (Number of Facilities)	1	1	1	1
Remediation Complete (Number of Release Sites)	265	265	265	265
Idaho				
Pinellas Plant - Idaho				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Monticello Remedial Action Project - Idaho				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Argonne National Laboratory - West				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Remediation Complete (Number of Release Sites)	37	37	37	37
Idaho National Laboratory				
Geographic Sites Eliminated (number of sites)	0	0	0	1
Enriched Uranium packaged for disposition (Number of Containers)	1,586	1,586	1,586	1,586
High-Level Waste packaged for final disposition (Number of Containers)	0	0	0	6,660
Industrial Facility Completions (Number of Facilities)	177	177	177	254
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	77,332	80,111	82,471	82,471
Liquid Waste in Inventory eliminated (Thousands of Gallons)	0	410	900	900
Liquid Waste Tanks closed (Number of Tanks)	7	7	7	11

	Cumulative FY 2013 Actual	Cumulative FY 2014 Target	Cumulative FY 2015 Target	Life-cycle Estimate
Material Access Areas eliminated (Number of Material Access Areas)	1	1	1	1
Nuclear Facility Completions (Number of Facilities)	55	55	55	88
Radioactive Facility Completions (Number of Facilities)	66	66	66	76
Remediation Complete (Number of Release Sites)	288	288	288	288
Spent Nuclear Fuel packaged for final disposition (Metric Tons of Heavy Metal)	0	0	0	285
Transuranic Waste Dispositioned (Cubic meters) - CH	55,694	60,194	64,694	72,080
Transuranic Waste Dispositioned (Cubic meters) - RH	122	125	125	125
Idaho Operations Office				
Remediation Complete (Number of Release Sites)	233	233	233	233
Maxey Flats				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Closure Sites				
Ashtabula				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Industrial Facility Completions (Number of Facilities)	7	7	7	7
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	3,707	3,707	3,707	3,707
Radioactive Facility Completions (Number of Facilities)	28	28	28	28
Remediation Complete (Number of Release Sites)	3	3	3	3
Columbus				
Geographic Sites Eliminated (number of sites)	2	2	2	2
Nuclear Facility Completions (Number of Facilities)	1	1	1	1
Radioactive Facility Completions (Number of Facilities)	14	14	14	14
Remediation Complete (Number of Release Sites)	2	2	2	2
Fernald				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Industrial Facility Completions (Number of Facilities)	1	1	1	1
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	7,085	7,085	7,085	7,085
Radioactive Facility Completions (Number of Facilities)	29	29	29	29
Remediation Complete (Number of Release Sites)	6	6	6	6
Miamisburg				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Depleted and Other Uranium packaged for disposition (Metric Tons)	0	0	0	0
Industrial Facility Completions (Number of Facilities)	116	116	116	116
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	3,947	3,947	3,947	3,947

	Cumulative FY 2013 Actual	Cumulative FY 2014 Target	Cumulative FY 2015 Target	Life-cycle Estimate
Nuclear Facility Completions (Number of Facilities)	8	8	8	8
Radioactive Facility Completions (Number of Facilities)	11	11	11	11
Remediation Complete (Number of Release Sites)	178	178	178	178
Rocky Flats Environmental Technology Site				
Geographic Sites Eliminated (number of sites)	1	1	1	1
Industrial Facility Completions (Number of Facilities)	317	317	317	317
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	602,188	602,188	602,188	602,188
Material Access Areas eliminated (Number of Material Access Areas)	7	7	7	7
Nuclear Facility Completions (Number of Facilities)	6	6	6	6
Plutonium Metal or Oxide packaged for long-term storage (Number of Containers)	1,895	1,895	1,895	1,895
Plutonium or Uranium Residues packaged for disposition (Kilograms of Bulk)	103,901	103,901	103,901	103,901
Radioactive Facility Completions (Number of Facilities)	54	54	54	54
Remediation Complete (Number of Release Sites)	360	360	360	360
Transuranic Waste Dispositioned (Cubic meters) - CH	15,036	15,036	15,036	15,036
West Valley Demonstration Project				
West Valley Demonstration Project				
Geographic Sites Eliminated (number of sites)	0	0	0	1
High-Level Waste packaged for final disposition (Number of Containers)	275	275	275	275
Industrial Facility Completions (Number of Facilities)	14	15	15	41
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	31,838	31,838	31,838	34,609
Liquid Waste in Inventory eliminated (Thousands of Gallons)	814	814	814	814
Nuclear Facility Completions (Number of Facilities)	3	3	3	25
Radioactive Facility Completions (Number of Facilities)	4	6	6	31
Transuranic Waste Dispositioned (Cubic meters) - CH	0	0	0	596
Transuranic Waste Dispositioned (Cubic meters) - RH	0	0	0	1,125
Portsmouth				
Portsmouth Gaseous Diffusion Plant				
Geographic Sites Eliminated (number of sites)	0	0	0	1
Depleted and Other Uranium packaged for disposition (Metric Tons)	9,895	19,625	33,125	254,073
Industrial Facility Completions (Number of Facilities)	42	42	42	257
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	56,980	78,001	78,001	78,001
Nuclear Facility Completions (Number of Facilities)	0	0	0	12
Radioactive Facility Completions (Number of Facilities)	8	8	8	11
Remediation Complete (Number of Release Sites)	150	150	150	150

	Cumulative FY 2013 Actual	Cumulative FY 2014 Target	Cumulative FY 2015 Target	Life-cycle Estimate
Paducah				
Paducah Gaseous Diffusion Plant				
Geographic Sites Eliminated (number of sites)	0	0	0	1
Depleted and Other Uranium packaged for disposition (Metric Tons)	9,854	22,824	40,824	457,160
Enriched Uranium packaged for disposition (Number of Containers)	0	0	0	182
Industrial Facility Completions (Number of Facilities)	19	19	19	172
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	22,670	22,786	22,786	28,105
Nuclear Facility Completions (Number of Facilities)	0	0	0	18
Radioactive Facility Completions (Number of Facilities)	7	7	7	24
Remediation Complete (Number of Release Sites)	109	109	111	203
Savannah River				
Savannah River Site				
Geographic Sites Eliminated (number of sites)	0	0	0	1
Depleted and Other Uranium packaged for disposition (Metric Tons)	23,181	23,181	23,181	23,181
Enriched Uranium packaged for disposition (Number of Containers)	3,472	3,472	3,472	3,472
High-Level Waste packaged for final disposition (Number of Containers)	3,753	3,878	3,998	7,532
Industrial Facility Completions (Number of Facilities)	253	253	253	848
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	149,854	156,944	165,792	270,462
Liquid Waste in Inventory eliminated (Thousands of Gallons)	5,319	6,119	7,119	33,100
Liquid Waste Tanks closed (Number of Tanks)	4	6	6	51
Material Access Areas eliminated (Number of Material Access Areas)	2	2	2	3
Nuclear Facility Completions (Number of Facilities)	11	11	11	201
Plutonium Metal or Oxide packaged for long-term storage (Number of Containers)	919	919	919	919
Plutonium or Uranium Residues packaged for disposition (Kilograms of Bulk)	490	490	490	490
Radioactive Facility Completions (Number of Facilities)	21	21	21	54
Remediation Complete (Number of Release Sites)	402	402	407	516
Spent Nuclear Fuel packaged for final disposition (Metric Tons of Heavy Metal)	3	3	3	40
Transuranic Waste Dispositioned (Cubic meters) - CH	10,729	11,473	11,513	15,007
Transuranic Waste Dispositioned (Cubic meters) - RH	26	26	76	105
Carlsbad				
Waste Isolation Pilot Plant				
Geographic Sites Eliminated (number of sites)	0	0	0	1

	Cumulative FY 2013 Actual	Cumulative FY 2014 Target	Cumulative FY 2015 Target	Life-cycle Estimate
Richland				
Hanford Site				
Geographic Sites Eliminated (number of sites)	0	0	0	1
Depleted and Other Uranium packaged for disposition (Metric Tons)	3,100	3,100	3,100	3,100
Enriched Uranium packaged for disposition (Number of Containers)	2,958	2,958	2,958	2,958
Industrial Facility Completions (Number of Facilities)	649	656	669	1,308
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	52,336	52,336	52,336	52,336
Material Access Areas eliminated (Number of Material Access Areas)	20	20	20	24
Nuclear Facility Completions (Number of Facilities)	36	37	38	78
Plutonium Metal or Oxide packaged for long-term storage (Number of Containers)	2,275	2,275	2,275	2,275
Plutonium or Uranium Residues packaged for disposition (Kilograms of Bulk)	3,437	3,437	3,437	3,437
Radioactive Facility Completions (Number of Facilities)	127	131	134	269
Remediation Complete (Number of Release Sites)	1,175	1,234	1,322	2,152
Spent Nuclear Fuel packaged for final disposition (Metric Tons of Heavy Metal)	2,124	2,124	2,124	2,124
Transuranic Waste Dispositioned (Cubic meters) - CH	5,763	5,763	5,763	24,580
Transuranic Waste Dispositioned (Cubic meters) - RH	0	0	0	858
River Protection				
River Protection				
High-Level Waste packaged for final disposition (Number of Containers)	0	0	0	9,667
Industrial Facility Completions (Number of Facilities)	0	0	0	128
Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	36,836	38,256	38,256	197,519
Liquid Waste in Inventory eliminated (Thousands of Gallons)	0	0	0	56,000
Liquid Waste Tanks closed (Number of Tanks)	0	0	0	177
Nuclear Facility Completions (Number of Facilities)	0	0	0	18
Radioactive Facility Completions (Number of Facilities)	0	0	0	114
Remediation Complete (Number of Release Sites)	5	5	5	278
Transuranic Waste Dispositioned (Cubic meters) - CH	0	0	0	1,555
Transuranic Waste Dispositioned (Cubic meters) - RH	0	0	0	4,410

Corporate Performance Measure Quantities by Project Baseline Summary[abc]

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
All Other Sites							
Argonne National Laboratory-East	CH-ANLE-0040.NEW						
		Transuranic Waste Dispositioned (Cubic meters) - CH	22	22	22	0	22
		Transuranic Waste Dispositioned (Cubic meters) - RH	21	21	21	0	21
		Radioactive Facility Completions (Number of Facilities)	2	2	2	0	2
Brookhaven National Laboratory	BRNL-0041.NEW						
		Radioactive Facility Completions (Number of Facilities)	1	1	1	0	1
Brookhaven National Laboratory	BRNL-0030						
		Radioactive Facility Completions (Number of Facilities)	3	3	3	0	3
		Remediation Complete (Number of Release Sites)	75	75	75	0	75
Brookhaven National Laboratory	BRNL-0040						
		Nuclear Facility Completions (Number of Facilities)	1	1	1	0	1
		Radioactive Facility Completions (Number	7	7	7	0	7

[a] Life-cycle estimates for release sites, facilities, and high-level waste canisters include pre-1997 actuals. Quantities for all other measures except low-level and mixed low-level waste disposal begin in 1997. Low-level and mixed low-level waste disposal begins in 1998.

[b] This chart provides a consistent set of performance measures for the EM program by PBS. The project-level justification provides a description of significant activities for each project including performance measures and project-specific budget milestones, as applicable.

[c] Annual results and targets, as well as life-cycle numbers, are under configuration control. In enforcing the Assistant Secretary's added emphasis on project management principles, EM's Configuration Control Board maintains strict configuration control of these numbers to ensure performance and accountability is firmly established and reported.

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		of Facilities)					
		Remediation Complete (Number of Release Sites)	1	1	1	0	1
Brookhaven National Laboratory	BRNL-0041						
		Radioactive Facility Completions (Number of Facilities)	2	2	2	0	2
		Remediation Complete (Number of Release Sites)	1	1	1	0	1
California Site Support (Non-Defense)	CBC-CA-0013B-N						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	83	83	83	0	83
Energy Technology Engineering Center	CBC-ETEC-0040						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	1,075	1,075	1,075	0	1,075
		Radioactive Facility Completions (Number of Facilities)	4	4	4	+2	6
		Industrial Facility Completions (Number of Facilities)	24	24	24	+2	26
		Remediation Complete (Number of Release Sites)	4	4	4	+10	14
Inhalation Toxicology Laboratory	CBC-ITL-0030						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	359	359	359	0	359
		Remediation Complete (Number of Release Sites)	9	9	9	0	9
Lawrence Berkeley National Laboratory	CBC-LBNL-0030						
		Remediation Complete (Number of	181	181	181	0	181

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		Release Sites)					
Stanford Linear Accelerator Center	CBC-SLAC-0030						
		Remediation Complete (Number of Release Sites)	42	56	56	0	56
Argonne National Laboratory-East	CH-ANLE-0030						
		Remediation Complete (Number of Release Sites)	443	443	443	0	443
Argonne National Laboratory-East	CH-ANLE-0040						
		Radioactive Facility Completions (Number of Facilities)	78	78	78	0	78
Chicago Operations Office	CH-OPS-0900						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	537	537	537	0	537
		Remediation Complete (Number of Release Sites)	30	30	30	0	30
Laboratory for Energy-Related Health Research	LEHR-0040						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	944	944	944	0	944
		Industrial Facility Completions (Number of Facilities)	1	1	1	0	1
		Remediation Complete (Number of Release Sites)	16	16	16	0	16
Energy Technology Engineering Center	VL-ETEC-0040						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	820	820	820	0	820
		Radioactive Facility Completions (Number	1	1	1	0	1

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		of Facilities)					
		Industrial Facility Completions (Number of Facilities)	5	5	5	0	5
California Site Support (Non-Defense)	VL-FOO-0900-N						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	189	189	189	0	189
		Remediation Complete (Number of Release Sites)	3	3	3	0	3
General Atomics	VL-GA-0012						
		Spent Nuclear Fuel packaged for final disposition (Metric Tons of Heavy Metal)	1	1	1	0	1
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	1,716	1,716	1,716	0	1,716
		Remediation Complete (Number of Release Sites)	2	2	2	0	2
Lawrence Berkeley National Laboratory	VL-LBNL-0030						
		Remediation Complete (Number of Release Sites)	13	13	13	0	13
Laboratory for Energy-Related Health Research	VL-LEHR-0040						
		Industrial Facility Completions (Number of Facilities)	1	1	1	0	1
Stanford Linear Accelerator Center	VL-SLAC-0030						
		Remediation Complete (Number of Release Sites)	1	1	1	0	1
Closure Sites							
Ashtabula	OH-AB-0030						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	3,707	3,707	3,707	0	3,707

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		Radioactive Facility Completions (Number of Facilities)	28	28	28	0	28
		Industrial Facility Completions (Number of Facilities)	7	7	7	0	7
		Remediation Complete (Number of Release Sites)	3	3	3	0	3
Columbus	OH-CL-0040						
		Nuclear Facility Completions (Number of Facilities)	1	1	1	0	1
		Radioactive Facility Completions (Number of Facilities)	14	14	14	0	14
		Remediation Complete (Number of Release Sites)	2	2	2	0	2
Fernald	OH-FN-0013						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	7,085	7,085	7,085	0	7,085
		Remediation Complete (Number of Release Sites)	4	4	4	0	4
Fernald	OH-FN-0030						
		Remediation Complete (Number of Release Sites)	2	2	2	0	2
Fernald	OH-FN-0050						
		Radioactive Facility Completions (Number of Facilities)	29	29	29	0	29
		Industrial Facility Completions (Number of Facilities)	1	1	1	0	1
Miamisburg	OH-MB-0013						
		Depleted and Other Uranium packaged for disposition (Metric Tons)	0	0	0	0	0
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	3,947	3,947	3,947	0	3,947
Miamisburg	OH-MB-0030						
		Depleted and Other Uranium packaged	0	0	0	0	0

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		for disposition (Metric Tons)					
		Remediation Complete (Number of Release Sites)	178	178	178	0	178
Miamisburg	OH-MB-0040						
		Nuclear Facility Completions (Number of Facilities)	8	8	8	0	8
		Radioactive Facility Completions (Number of Facilities)	11	11	11	0	11
		Industrial Facility Completions (Number of Facilities)	116	116	116	0	116
Rocky Flats Environmental Technology Site	RF-0011						
		Plutonium Metal or Oxide packaged for long-term storage (Number of Containers)	1,895	1,895	1,895	0	1,895
		Plutonium or Uranium Residues packaged for disposition (Kilograms of Bulk)	103,901	103,901	103,901	0	103,901
Rocky Flats Environmental Technology Site	RF-0013						
		Transuranic Waste Dispositioned (Cubic meters) - CH	15,036	15,036	15,036	0	15,036
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	602,188	602,188	602,188	0	602,188
Rocky Flats Environmental Technology Site	RF-0030						
		Remediation Complete (Number of Release Sites)	360	360	360	0	360
Rocky Flats Environmental Technology Site	RF-0040						
		Material Access Areas eliminated	6	6	6	0	6

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		(Number of Material Access Areas)					
		Nuclear Facility Completions (Number of Facilities)	6	6	6	0	6
		Radioactive Facility Completions (Number of Facilities)	22	22	22	0	22
		Industrial Facility Completions (Number of Facilities)	141	141	141	0	141
Rocky Flats Environmental Technology Site	RF-0041						
		Material Access Areas eliminated (Number of Material Access Areas)	1	1	1	0	1
		Radioactive Facility Completions (Number of Facilities)	32	32	32	0	32
		Industrial Facility Completions (Number of Facilities)	176	176	176	0	176
Idaho							
Idaho National Laboratory	ID-0012B						
		Spent Nuclear Fuel packaged for final disposition (Metric Tons of Heavy Metal)	0	0	0	+285	285
Idaho National Laboratory	ID-0013B.NEW						
		Transuranic Waste Dispositioned (Cubic meters) - RH	3	3	3	0	3
Idaho National Laboratory	ID-0040B.NEW						
		Nuclear Facility Completions (Number of Facilities)	11	11	11	0	11
		Radioactive Facility Completions (Number of Facilities)	7	7	7	0	7
		Industrial Facility Completions (Number of Facilities)	1	1	1	0	1
Argonne National Laboratory - West	CH-ANLW-0030						

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		Remediation Complete (Number of Release Sites)	37	37	37	0	37
Idaho National Laboratory	HQ-SNF-0012X						
Idaho National Laboratory	ID-0011						
		Enriched Uranium packaged for disposition (Number of Containers)	1,586	1,586	1,586	0	1,586
		Material Access Areas eliminated (Number of Material Access Areas)	1	1	1	0	1
Idaho National Laboratory	ID-0013						
		Transuranic Waste Dispositioned (Cubic meters) - CH	50,193	54,693	59,193	5,487	64,680
		Transuranic Waste Dispositioned (Cubic meters) - RH	119	122	122	0	122
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	77,332	80,111	82,471	0	82,471
Idaho National Laboratory	ID-0014B						
		Liquid Waste in Inventory eliminated (Thousands of Gallons)	0	410	900	0	900
		Liquid Waste Tanks closed (Number of Tanks)	7	7	7	0	11
		High-Level Waste packaged for final disposition (Number of Containers)	0	0	0	+6,660	6,660
Idaho National Laboratory	ID-0030B						
		Transuranic Waste Dispositioned (Cubic meters) - CH	5,501	5,501	6,251	+1,149	7,400
		Remediation Complete (Number of Release Sites)	288	288	288	0	288
Idaho National Laboratory	ID-0040B						

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		Nuclear Facility Completions (Number of Facilities)	44	44	44	0	44
		Radioactive Facility Completions (Number of Facilities)	24	24	24	0	24
		Industrial Facility Completions (Number of Facilities)	33	33	33	0	33
Idaho National Laboratory	ID-0040C						
		Nuclear Facility Completions (Number of Facilities)	0	0	0	+33	33
		Radioactive Facility Completions (Number of Facilities)	0	0	0	+10	10
		Industrial Facility Completions (Number of Facilities)	0	0	0	+77	77
Idaho National Laboratory	ID-0050B						
		Radioactive Facility Completions (Number of Facilities)	35	35	35	0	35
		Industrial Facility Completions (Number of Facilities)	143	143	143	0	143
Idaho Operations Office	ID-0900						
		Remediation Complete (Number of Release Sites)	233	233	233	0	233
NNSA Sites							
Lawrence Livermore National Laboratory	HQ-SW-0013Y.LLNL						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	2,546	2,546	2,546	0	2,546
Nevada National Security Site	NV-0030						
		Remediation Complete (Number of Release Sites)	53	53	53	0	53
New Mexico Site Support	VL-FAO-0900						

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	1,319	1,319	1,319	0	1,319
		Remediation Complete (Number of Release Sites)	155	155	155	0	155
Kansas City Plant	VL-KCP-0030						
		Remediation Complete (Number of Release Sites)	43	43	43	0	43
Los Alamos National Laboratory	VL-LANL-0013						
		Transuranic Waste Dispositioned (Cubic meters) - CH	6,134	7,094	7,344	+2,145	9,489
		Transuranic Waste Dispositioned (Cubic meters) - RH	16	16	16	+78	94
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	4,013	4,021	4,021	0	4,021
Los Alamos National Laboratory	VL-LANL-0030						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	5,426	5,426	5,426	0	5,426
		Remediation Complete (Number of Release Sites)	1,562	1,658	1,658	+248	1,906
Los Alamos National Laboratory	VL-LANL-0040-D						
		Nuclear Facility Completions (Number of Facilities)	1	1	1	0	1
		Radioactive Facility Completions (Number of Facilities)	15	15	17	+80	97
		Industrial Facility Completions (Number of Facilities)	5	5	5	0	5
Los Alamos National Laboratory	VL-LANL-0040-N						
		Radioactive Facility Completions (Number	4	4	4	0	4

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		of Facilities)					
		Industrial Facility Completions (Number of Facilities)	1	1	1	0	1
Lawrence Livermore National Laboratory	VL-LLNL-0013						
		Transuranic Waste Dispositioned (Cubic meters) - CH	125	125	125	0	125
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	2,766	2,766	2,766	0	2,766
Lawrence Livermore National Laboratory	VL-LLNL-0030						
		Remediation Complete (Number of Release Sites)	120	120	120	0	120
Lawrence Livermore National Laboratory	VL-LLNL-0031						
		Remediation Complete (Number of Release Sites)	74	74	74	+4	78
Nevada National Security Site	VL-NV-0013						
		Transuranic Waste Dispositioned (Cubic meters) - CH	1,246	1,246	1,246	0	1,246
Nevada National Security Site	VL-NV-0030						
		Radioactive Facility Completions (Number of Facilities)	10	10	10	+1	11
		Industrial Facility Completions (Number of Facilities)	1	1	1	0	1
		Remediation Complete (Number of Release Sites)	1,115	1,131	1,166	+887	2,053
Pantex Plant	VL-PX-0030						
		Remediation Complete (Number of Release Sites)	237	237	237	0	237
Pantex Plant	VL-PX-0040						
		Industrial Facility Completions (Number	4	4	4	0	4

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		of Facilities)					
Sandia National Laboratory	VL-SN-0030						
		Radioactive Facility Completions (Number of Facilities)	1	1	1	0	1
		Remediation Complete (Number of Release Sites)	265	265	265	0	265
NNSA Service Center	VL-SPRU-0040						
		Nuclear Facility Completions (Number of Facilities)	0	6	6	0	6
		Remediation Complete (Number of Release Sites)	5	6	6	0	6
NNSA Service Center	VL-SV-0100						
		Remediation Complete (Number of Release Sites)	1	1	1	0	1
Oak Ridge							
Oak Ridge	HQ-SW-0013Y.Y12						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	16,252	16,252	16,252	0	16,252
Oak Ridge	OR-0041.NEW						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	44,277	44,277	44,277	0	44,277
		Nuclear Facility Completions (Number of Facilities)	1	1	1	0	1
		Industrial Facility Completions (Number of Facilities)	4	4	4	0	4
Oak Ridge	OR-0042.NEW						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	511	511	511	0	511
		Radioactive Facility Completions (Number of Facilities)	19	19	19	0	19

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		Industrial Facility Completions (Number of Facilities)	12	12	12	0	12
Oak Ridge	HQ-SW-0013X-OR						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	7,157	7,157	7,157	0	7,157
Oak Ridge	OR-0011Y						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	93	93	93	0	93
		Nuclear Facility Completions (Number of Facilities)	4	4	4	0	4
Oak Ridge	OR-0011Z						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	160	242	259	17	259
Oak Ridge	OR-0013A						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	48,584	48,584	48,584	0	48,584
Oak Ridge	OR-0013B						
		Transuranic Waste Dispositioned (Cubic meters) - CH	972	1,160	1,361	+141	1,502
		Transuranic Waste Dispositioned (Cubic meters) - RH	110	290	485	+115	600
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	17,967	17,985	18,090	0	18,090
Oak Ridge	OR-0030						
		Nuclear Facility Completions (Number of Facilities)	2	2	2	0	2
		Radioactive Facility Completions (Number of Facilities)	15	15	15	0	15
		Industrial Facility Completions (Number	2	2	2	0	2

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		of Facilities)					
		Remediation Complete (Number of Release Sites)	106	106	106	0	106
Oak Ridge	OR-0031						
		Remediation Complete (Number of Release Sites)	7	7	7	+1	8
Oak Ridge	OR-0040						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	5,178	5,178	5,178	0	5,178
		Nuclear Facility Completions (Number of Facilities)	2	2	2	+2	4
		Radioactive Facility Completions (Number of Facilities)	10	10	11	+19	30
		Industrial Facility Completions (Number of Facilities)	380	387	388	+168	556
		Remediation Complete (Number of Release Sites)	123	123	123	+42	165
Oak Ridge	OR-0041						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	22,054	22,054	22,054	0	22,054
		Industrial Facility Completions (Number of Facilities)	2	2	2	+1	3
		Remediation Complete (Number of Release Sites)	30	30	30	+108	138
Oak Ridge	OR-0042						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	4,215	4,543	4,858	+337	5,195
		Nuclear Facility Completions (Number of Facilities)	0	0	0	+15	15
		Radioactive Facility Completions (Number of Facilities)	14	14	14	+23	37
		Industrial Facility Completions (Number	8	8	8	+16	24

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		of Facilities)					
		Remediation Complete (Number of Release Sites)	87	87	87	+91	178
Oak Ridge	OR-0043						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	32,979	32,979	32,979	0	32,979
		Industrial Facility Completions (Number of Facilities)	7	7	7	+30	37
Oak Ridge	OR-0900-D						
		Remediation Complete (Number of Release Sites)	74	74	74	0	74
Oak Ridge	OR-0900-N						
		Industrial Facility Completions (Number of Facilities)	3	3	3	0	3
		Remediation Complete (Number of Release Sites)	23	23	23	0	23
Paducah							
Paducah Gaseous Diffusion Plant	PA-0011						
		Enriched Uranium packaged for disposition (Number of Containers)	0	0	0	+182	182
		Radioactive Facility Completions (Number of Facilities)	1	1	1	0	1
Paducah Gaseous Diffusion Plant	PA-0011X						
		Depleted and Other Uranium packaged for disposition (Metric Tons)	9,854	22,824	40,824	+416,336	457,160
Paducah Gaseous Diffusion Plant	PA-0013						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	22,529	22,529	22,529	0	22,529
Paducah Gaseous Diffusion Plant	PA-0040						

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	141	257	257	+5,319	5,576
		Nuclear Facility Completions (Number of Facilities)	0	0	0	+18	18
		Radioactive Facility Completions (Number of Facilities)	6	6	6	+17	23
		Industrial Facility Completions (Number of Facilities)	19	19	19	+153	172
		Remediation Complete (Number of Release Sites)	108	108	110	+92	202
Paducah Gaseous Diffusion Plant	PA-0900						
		Remediation Complete (Number of Release Sites)	1	1	1	0	1
Portsmouth							
Portsmouth Gaseous Diffusion Plant	PO-0011X						
		Depleted and Other Uranium packaged for disposition (Metric Tons)	9,895	19,625	33,125	+220,948	254,073
Portsmouth Gaseous Diffusion Plant	PO-0013						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	36,702	36,702	36,702	0	36,702
Portsmouth Gaseous Diffusion Plant	PO-0040						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	20,278	41,299	41,299	0	41,299
		Nuclear Facility Completions (Number of Facilities)	0	0	0	+12	12
		Radioactive Facility Completions (Number of Facilities)	8	8	8	+3	11
		Industrial Facility Completions (Number	42	42	42	+215	257

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		of Facilities)					
		Remediation Complete (Number of Release Sites)	20	20	20	0	20
Portsmouth Gaseous Diffusion Plant	PO-0900						
		Remediation Complete (Number of Release Sites)	130	130	130	0	130
Richland							
Hanford Site	RL-0011						
		Plutonium Metal or Oxide packaged for long-term storage (Number of Containers)	2,275	2,275	2,275	0	2,275
		Plutonium or Uranium Residues packaged for disposition (Kilograms of Bulk)	3,437	3,437	3,437	0	3,437
		Material Access Areas eliminated (Number of Material Access Areas)	20	20	20	0	20
		Nuclear Facility Completions (Number of Facilities)	23	23	23	+5	28
		Radioactive Facility Completions (Number of Facilities)	7	7	7	+10	17
		Industrial Facility Completions (Number of Facilities)	10	10	10	+14	24
Hanford Site	RL-0012						
		Spent Nuclear Fuel packaged for final disposition (Metric Tons of Heavy Metal)	2,117	2,117	2,117	0	2,117
Hanford Site	RL-0013						
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	1,317	1,317	1,317	0	1,317
Hanford Site	RL-0013C						
		Transuranic Waste Dispositioned (Cubic meters) - CH	5,763	5,763	5,763	+18,817	24,580
		Transuranic Waste Dispositioned (Cubic meters) - RH	0	0	0	+858	858
		Legacy and Newly Generated Low-Level	51,019	51,019	51,019	0	51,019

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		and Mixed Low-Level Waste disposed (Cubic meters)					
		Material Access Areas eliminated (Number of Material Access Areas)	0	0	0	+4	4
Hanford Site	RL-0040						
		Nuclear Facility Completions (Number of Facilities)	6	6	6	+29	35
		Radioactive Facility Completions (Number of Facilities)	21	21	21	+110	131
		Industrial Facility Completions (Number of Facilities)	277	277	277	+546	823
		Remediation Complete (Number of Release Sites)	81	81	81	+776	857
Hanford Site	RL-0041						
		Enriched Uranium packaged for disposition (Number of Containers)	2,958	2,958	2,958	0	2,958
		Depleted and Other Uranium packaged for disposition (Metric Tons)	3,100	3,100	3,100	0	3,100
		Nuclear Facility Completions (Number of Facilities)	7	8	9	+2	11
		Radioactive Facility Completions (Number of Facilities)	99	103	106	+7	113
		Industrial Facility Completions (Number of Facilities)	362	369	382	+47	429
		Remediation Complete (Number of Release Sites)	1,094	1,153	1,241	+54	1,295
Hanford Site	RL-0042						
		Spent Nuclear Fuel packaged for final disposition (Metric Tons of Heavy Metal)	7	7	7	0	7
		Nuclear Facility Completions (Number of Facilities)	0	0	0	+4	4
		Radioactive Facility Completions (Number of Facilities)	0	0	0	+8	8
		Industrial Facility Completions (Number of Facilities)	0	0	0	+32	32

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
River Protection							
River Protection	ORP-0014						
		Liquid Waste in Inventory eliminated (Thousands of Gallons)	0	0	0	+56,000	56,000
		Liquid Waste Tanks closed (Number of Tanks)	0	0	0	+177	177
		High-Level Waste packaged for final disposition (Number of Containers)	0	0	0	+9,667	9,667
		Transuranic Waste Dispositioned (Cubic meters) - CH	0	0	0	+1,555	1,555
		Transuranic Waste Dispositioned (Cubic meters) - RH	0	0	0	+3,864	3,864
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	36,836	38,256	38,256	+159,263	197,519
		Nuclear Facility Completions (Number of Facilities)	0	0	0	+18	18
		Radioactive Facility Completions (Number of Facilities)	0	0	0	+114	114
		Industrial Facility Completions (Number of Facilities)	0	0	0	+128	128
		Remediation Complete (Number of Release Sites)	5	5	5	+273	278
River Protection	ORP-0060						
		Transuranic Waste Dispositioned (Cubic meters) - RH	0	0	0	+546	546
Savannah River							
Savannah River Site	SR-0011B						
		Plutonium Metal or Oxide packaged for long-term storage (Number of Containers)	919	919	919	0	919
		Plutonium or Uranium Residues packaged for disposition (Kilograms of Bulk)	490	490	490	0	490
Savannah River Site	SR-0011C						
		Enriched Uranium packaged for	3,472	3,472	3,472	0	3,472

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
		disposition (Number of Containers)					
		Depleted and Other Uranium packaged for disposition (Metric Tons)	11,536	11,536	11,536	0	11,536
Savannah River Site	SR-0012						
		Spent Nuclear Fuel packaged for final disposition (Metric Tons of Heavy Metal)	3	3	3	+37	40
Savannah River Site	SR-0013						
		Depleted and Other Uranium packaged for disposition (Metric Tons)	11,645	11,645	11,645	0	11,645
		Transuranic Waste Dispositioned (Cubic meters) - CH	10,729	10,757	11,513	+3,494	15,007
		Transuranic Waste Dispositioned (Cubic meters) - RH	26	26	76	+29	105
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	149,854	156,944	165,792	+104,670	270,462
Savannah River Site	SR-0014C						
		Liquid Waste in Inventory eliminated (Thousands of Gallons)	5,319	6,119	7,119	+25,387	33,100
		Liquid Waste Tanks closed (Number of Tanks)	4	6	6	+43	51
		High-Level Waste packaged for final disposition (Number of Containers)	3,753	3,878	3,998	+3,534	7,532
Savannah River Site	SR-0020						
		Material Access Areas eliminated (Number of Material Access Areas)	2	2	2	+1	3
Savannah River Site	SR-0030						
		Nuclear Facility Completions (Number of Facilities)	0	0	0	+190	190
		Radioactive Facility Completions (Number of Facilities)	14	14	14	+33	47
		Industrial Facility Completions (Number of Facilities)	21	21	21	+595	616
		Remediation Complete (Number of Release Sites)	402	402	407	+109	516

Office / Installation	Project Number	Project Name / Measure	Complete Through 2013	Targeted Completion Through 2014	Targeted Completion Through 2015	Balance Remaining	Life-Cycle Quantity
Savannah River Site	SR-0040						
		Nuclear Facility Completions (Number of Facilities)	11	11	11	0	11
		Radioactive Facility Completions (Number of Facilities)	7	7	7	0	7
		Industrial Facility Completions (Number of Facilities)	232	232	232	0	232
West Valley Demonstration Project							
West Valley Demonstration Project	OH-WV-0013						
		Liquid Waste in Inventory eliminated (Thousands of Gallons)	814	814	814	0	814
		High-Level Waste packaged for final disposition (Number of Containers)	275	275	275	0	275
		Transuranic Waste Dispositioned (Cubic meters) - CH	0	0	0	+596	596
		Transuranic Waste Dispositioned (Cubic meters) - RH	0	0	0	+1,125	1,125
		Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)	31,838	31,838	31,838	+2,771	34,609
West Valley Demonstration Project	OH-WV-0040						
		Nuclear Facility Completions (Number of Facilities)	3	3	3	+15	25
		Radioactive Facility Completions (Number of Facilities)	4	6	6	+25	31
		Industrial Facility Completions (Number of Facilities)	14	15	15	+26	41

Environmental Management
Program Life-Cycle (LCC) Cost Range
($M at 50% and 80% Confidence Levels)

Site	LCC Total Range (Single Value indicates 50% and 80% Confidence Levels are the same, or reflects actual completion cost)		
Argonne National Laboratory-East	163	-	
Ashtabula	138	-	
Brookhaven National Laboratory	476	-	477
Columbus	172	-	
Energy Technology Engineering Center	305	-	348
Fernald	3,433	-	
Hanford Site	58,121	-	63,449
Headquarters	2,165	-	
Idaho National Laboratory	19,608	-	23,504
Inhalation Toxicology Laboratory	13	-	
Kansas City Plant	30	-	
Laboratory for Energy-Related Health Research	40	-	
Lawrence Berkeley National Laboratory	54	-	
Lawrence Livermore National Laboratory	382	-	392
Los Alamos National Laboratory	2,859	-	3,115
Miamisburg	1,353	-	
Moab	889	-	896
Nevada Test Site	2,604	-	
Oak Ridge Reservation	10,747	-	10,872
Office of River Protection	65,768	-	73,441
Other	1,456	-	
Paducah Gaseous Diffusion Plant	11,226	-	17,989
Pantex Plant	206	-	
Portsmouth Gaseous Diffusion Plant	9,214	-	15,892
Program Direction	11,912	-	
Rocky Flats Environmental Technology Site	8,955	-	
Sandia National Laboratory	263	-	267
Savannah River Site	65,878	-	72,575
Stanford Linear Accelerator Center	68	-	
Technology Development and Deployment	2,966	-	
Waste Isolation Pilot Plant	7,033	-	7,524
West Valley Demonstration Project	1,846	-	1,955
		-	
Total EM Program	290,326	-	328,407

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
Argonne National Laboratory-East						
CH-ANLE-0030	Soil and Water Remediation	30,244	0	0	30,244	30,244
CH-ANLE-0040	Nuclear Facility D&D	69,803	0	0	69,803	69,803
CH-ANLE-0040.NEW	Argonne Recovery Act Project	63,235	0	0	63,235	63,235
	Argonne National Laboratory-East Total	163,282	0	0	163,282	163,282
Ashtabula						
OH-AB-0030	Soil and Water Remediation-Ashtabula	137,911	0	0	137,911	137,911
	Ashtabula Total	137,911	0	0	137,911	137,911
Brookhaven National Laboratory						
BRNL-0030	Soil and Water Remediation-Brookhaven National Laboratory	260,827	0	0	260,827	260,827
BRNL-0040	Nuclear Facility D&D-Brookhaven Graphite Research Reactor	137,210	0	0	137,210	137,210
BRNL-0041	Nuclear Facility D&D-High Flux Beam Reactor	61,268	10,729	11,545	71,997	72,813
BRNL-0041.NEW	A/B Waste Lines Removal and FHWMF Perimeter Area Soils Remediation	3,351	0	0	3,351	3,351

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
BRNL-0100	Brookhaven Community and Regulatory Support	2,801	75	75	2,876	2,876
	Brookhaven National Laboratory Total	465,457	10,804	11,620	476,261	477,077
Columbus						
OH-CL-0040	Columbus Nuclear Facility D&D	172,289	0	0	172,289	172,289
	Columbus Total	172,289	0	0	172,289	172,289
Energy Technology Engineering Center						
CBC-ETEC-0040	Nuclear Facility D&D-Energy Technology Engineering Center	237,550	67,177	110,513	304,727	348,063
	Energy Technology Engineering Center Total	237,550	67,177	110,513	304,727	348,063
Fernald						
OH-FN-0013	Solid Waste Stabilization and Disposition-Fernald	1,626,711	0	0	1,626,711	1,626,711
OH-FN-0020	Safeguards and Security-Fernald	15,509	0	0	15,509	15,509
OH-FN-0030	Soil and Water Remediation-Fernald	1,338,667	0	0	1,338,667	1,338,667
OH-FN-0050	Non-Nuclear Facility D&D-Fernald	226,037	0	0	226,037	226,037
OH-FN-0100	Fernald Post-Closure Administration	0	211,857	211,857	211,857	211,857

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
OH-FN-0101	Fernald Community and Regulatory Support	13,902	0	0	13,902	13,902
	Fernald Total	3,220,826	211,857	211,857	3,432,683	3,432,683
Hanford Site						
HQ-SNF-0012X-RL	SNF Stabilization and Disposition-Storage Operations Awaiting Geologic Repository	2,785	0	0	2,785	2,785
RL-0011	NM Stabilization and Disposition-PFP	2,220,453	411,147	670,243	2,631,600	2,890,696
RL-0012	SNF Stabilization and Disposition	2,655,997	325,667	333,365	2,981,664	2,989,362
RL-0013C	Solid Waste Stabilization & Disposition	2,757,958	9,351,377	9,673,610	12,109,335	12,431,568
RL-0020	Safeguards and Security	804,539	3,496,141	3,496,141	4,300,680	4,300,680
RL-0030	Soil and Water Remediation-Groundwater/Vadose Zone	1,780,939	7,510,584	8,093,289	9,291,523	9,874,228
RL-0040	Nuclear Facility D&D-Remainder of Hanford	1,809,030	17,305,902	21,391,767	19,114,932	23,200,797
RL-0041	Nuclear Facility D&D-River Corridor Closure Project	3,773,639	1,014,000	1,014,000	4,787,639	4,787,639
RL-0042	Nuclear Facility D&D-Fast Flux Test Facility Project	317,376	1,046,543	1,116,037	1,363,919	1,433,413

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
RL-0043	HAMMER Facility	7,426	0	0	7,426	7,426
RL-0044	B-Reactor Museum	1,940	0	0	1,940	1,940
RL-0080	Operate Waste Disposal Facility	71,232	0	0	71,232	71,232
RL-0100	Richland Community and Regulatory Support	263,236	1,060,944	1,060,944	1,324,180	1,324,180
RL-0900	Pre-2004 Completions	132,586	0	0	132,586	132,586
	Hanford Site Total	16,599,136	41,522,305	46,849,396	58,121,441	63,448,532
Headquarters						
HQ-MS-0100	Policy, Management, and Technical Support	792,903	749,101	749,101	1,542,004	1,542,004
HQ-UR-0100	Uranium/Thorium Reimbursements	411,949	211,398	211,398	623,347	623,347
	Headquarters Total	1,204,852	960,499	960,499	2,165,351	2,165,351
Idaho National Laboratory						
CH-ANLW-0030	Soil and Water Remediation-Argonne National Laboratory-West	8,245	0	0	8,245	8,245
HQ-SNF-0012X	SNF Stabilization and Disposition-Storage Operations Awaiting Geologic Repository	60,089	0	0	60,089	60,089
HQ-SNF-0012X-	SNF Stabilization and Disposition-Storage	18,995	0	0	18,995	18,995

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
ID	Operations Awaiting Geologic Repository					
HQ-SNF-0012Y	SNF Stabilization and Disposition-New/Upgraded Facilities Awaiting Geologic Repository	66,844	0	0	66,844	66,844
ID-0011	NM Stabilization and Disposition	19,058	0	0	19,058	19,058
ID-0012B	SNF Stabilization and Disposition (Defense)	539,815	2,765,614	4,053,251	3,305,429	4,593,066
ID-0012B-N	SNF Stabilization and Disposition (Non-Defense)	48,859	166,643	175,637	215,502	224,496
ID-0012C	SNF Stabilization and Disposition-2035	0	0	0	0	0
ID-0013B	Solid Waste Stabilization and Disposition	3,128,470	1,864,797	2,368,846	4,993,267	5,497,316
ID-0013B.NEW	INL Recovery Act Project--TRU Waste	115,315	0	0	115,315	115,315
ID-0014B	Radioactive Liquid Tank Waste Stabilization and Disposition-2012	2,193,624	3,636,063	5,576,752	5,829,687	7,770,376
ID-0014B-T	Radioactive Liquid Tank Waste Stabilization and Disposition-2012 (T)	71,140	0	0	71,140	71,140
ID-0014C	Radioactive Liquid Tank Waste Stabilization and Disposition-2035	0	0	0	0	0
ID-0030B	Soil and Water Remediation-2012	1,359,977	1,466,370	1,621,129	2,826,347	2,981,106

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
ID-0030C	Soil and Water Remediation-2035	0	0	0	0	0
ID-0040B	Nuclear Facility D&D-2012	698,416	0	0	698,416	698,416
ID-0040B.NEW	D&D NE Facilities (New)	90,956	0	0	90,956	90,956
ID-0040B	Nuclear Facility D&D-2012	698,416	0	0	698,416	698,416
ID-0040C	Nuclear Facility D&D-2035	0	0	0	0	0
ID-0050B	Non-Nuclear Facility D&D-2012	122,763	0	0	122,763	122,763
ID-0050C	Non-Nuclear Facility D&D-2035	0	0	0	0	0
ID-0100	Idaho Community and Regulatory Support	78,051	79,560	79,560	157,611	157,611
ID-0900	Pre-2004 Completions	310,264	0	0	310,264	310,264
	Idaho National Laboratory Total	9,629,297	9,979,047	13,875,175	19,608,344	23,504,472
Inhalation Toxicology Laboratory						
CBC-ITL-0030	Soil and Water Remediation - ITL	12,537	0	0	12,537	12,537
VL-ITL-0030	Soil and Water Remediation-Inhalation Toxicology Laboratory	13	0	0	13	13
	Inhalation Toxicology Laboratory Total	12,550	0	0	12,550	12,550
Kansas City Plant						

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
VL-KCP-0030	Soil and Water Remediation-Kansas City Plant	30,277	0	0	30,277	30,277
	Kansas City Plant Total	30,277	0	0	30,277	30,277
Laboratory for Energy-Related Health Research						
LEHR-0040	Nuclear Facility D&D-Laboratory for Energy-Related Health Research	39,549	0	0	39,549	39,549
VL-LEHR-0040	Nuclear Facility D&D-Laboratory for Energy-Related Health Research	534	0	0	534	534
	Laboratory for Energy-Related Health Research Total	40,083	0	0	40,083	40,083
Lawrence Berkeley National Laboratory						
CBC-LBNL-0030	Soil and Water Remediation-Lawrence Berkeley National Laboratory	34,559	0	0	34,559	34,559
VL-LBNL-0030	Soil and Water Remediation-Lawrence Berkeley National Laboratory	1,539	0	0	1,539	1,539
	Lawrence Berkeley National Laboratory Total	36,098	0	0	36,098	36,098
Lawrence Livermore National Laboratory						
VL-LLNL-0013	Solid Waste Stabilization and Disposition-Lawrence Livermore National Laboratory	71,966	0	0	71,966	71,966

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
VL-LLNL-0030	Soil and Water Remediation-Lawrence Livermore National Laboratory - Main Site	136,158	0	0	136,158	136,158
VL-LLNL-0031	Soil and Water Remediation-Lawrence Livermore National Laboratory - Site 300	130,973	43,201	53,231	174,174	184,204
	Lawrence Livermore National Laboratory Total	339,097	43,201	53,231	382,298	392,328
Los Alamos National Laboratory						
VL-FAO-0101	Miscellaneous Programs and Agreements in Principle	95,802	6,103	6,103	101,905	101,905
VL-LANL-0013	Solid Waste Stabilization and Disposition-LANL Legacy	813,521	255,708	274,293	1,069,229	1,087,814
VL-LANL-0030	Soil and Water Remediation-LANL	1,497,588	123,866	350,070	1,621,454	1,847,658
VL-LANL-0040-D	Nuclear Facility D&D-LANL (Defense)	49,250	8,078	18,978	57,328	68,228
VL-LANL-0040-N	Nuclear Facility D&D-LANL (Non-Defense)	9,351	0	0	9,351	9,351
	Los Alamos National Laboratory Total	2,465,512	393,755	649,444	2,859,267	3,114,956
Miamisburg						
OH-MB-0013	Solid Waste	264,692	0	0	264,692	264,692

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
OH-MB-0020	Safeguards and Security-Miamisburg	28,284	0	0	28,284	28,284
OH-MB-0030	Soil and Water	263,711	0	0	263,711	263,711
OH-MB-0031	Soil and Water Remediation - OU-1	0	0	0	0	0
OH-MB-0031.NEW	Mound Operable Unit 1 Recovery Act Project	17,700	0	0	17,700	17,700
OH-MB-0100	Miamisburg Post-Closure Administration	86,578	682,488	682,488	769,066	769,066
OH-MB-0101	Miamisburg Community and Regulatory Support	9,710	0	0	9,710	9,710
	Miamisburg Total	670,675	682,488	682,488	1,353,163	1,353,163
Moab						
CBC-MOAB-0031	Soil and Water Remediation-Moab	340,763	547,784	555,329	888,547	896,092
	Moab Total	340,763	547,784	555,329	888,547	896,092
Nevada Test Site						
VL-NV-0013	Solid Waste Stabilization and Disposition-Nevada	107,769	0	0	107,769	107,769
VL-NV-0030	Soil and Water Remediation - Nevada	989,348	744,532	744,532	1,733,880	1,733,880
VL-NV-0080	Operate Waste Disposal Facility-Nevada	136,930	491,789	491,789	628,719	628,719

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
VL-NV-0100	Nevada Community and Regulatory Support	59,809	73,445	73,445	133,254	133,254
	Nevada Test Site Total	1,293,856	1,309,766	1,309,766	2,603,622	2,603,622
Oak Ridge Reservation						
HQ-SW-0013X-OR	Solid Waste Stabilization and Disposition-Science Current Generation	143,584	0	0	143,584	143,584
OR-0011Y	NM Stabilization and Disposition-ETTP Uranium Facilities Management	52,409	0	0	52,409	52,409
OR-0011Z	Downblend of U-233 in Building 3019	293,537	60,898	60,898	354,435	354,435
OR-0013A	Solid Waste Stabilization and Disposition-2006	464,926	0	0	464,926	464,926
OR-0013B	Solid Waste Stabilization and Disposition-2012	1,466,899	267,892	289,491	1,734,791	1,756,390
OR-0020	Safeguards and Security	252,418	48,273	50,421	300,691	302,839
OR-0030	Soil and Water Remediation-Melton Valley	350,609	0	0	350,609	350,609
OR-0031	Soil and Water Remediation-Offsites	60,023	0	0	60,023	60,023
OR-0040	Nuclear Facility D&D-East Tennessee Technology Park (D&D Fund)	2,930,675	727,030	728,431	3,657,705	3,659,106

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
OR-0041	Nuclear Facility D&D-Y-12	551,718	491,287	545,328	1,043,005	1,097,046
OR-0041.NEW	Y-12 Recovery Act Project	156,499	0	0	156,499	156,499
OR-0042	Nuclear Facility D&D-Oak Ridge National Laboratory	650,925	416,475	456,609	1,067,400	1,107,534
OR-0042.NEW	Oak Ridge Recovery Act Project	32,502	5	687	32,507	33,189
OR-0043	Nuclear Facility D&D-East Tennessee Technology Park (Defense)	86,967	31,065	32,477	118,032	119,444
OR-0100	Oak Ridge Reservation Community & Regulatory Support (Defense)	121,880	21,225	22,048	143,105	143,928
OR-0101	Oak Ridge Contract/Post-Closure Liabilities/Administration	105,169	0	0	105,169	105,169
OR-0102	East Tennessee Technology Park Contract/Post-Closure Liabilities/Administration	221,704	60,859	63,570	282,563	285,274
OR-0103	Oak Ridge Reservation Community & Regulatory Support (D&D Fund)	44,375	0	0	44,375	44,375
OR-0104	Community and Regulatory (Non-Defense)	0	2,119	2,119	TBD	TBD
OR-0900-D	Pre-2004 Completions (Defense)	16,828	0	0	16,828	16,828

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
OR-0900-N	Pre-2004 Completions (Non-Defense)	618,520	0	0	618,520	618,520
	Oak Ridge Reservation Total	8,622,167	2,127,128	2,252,079	10,747,176	10,872,127
Office of River Protection						
HQ-HLW-0014X-RV	Radioactive Liquid Tank Waste Stabilization and Disposition-Storage Operations Awaiting Geologic Rep	0	122,239	122,239	122,239	122,239
ORP-0014	Radioactive Liquid Tank Waste Stabilization and Disposition	6,275,436	47,453,444	55,126,107	53,728,880	61,401,543
ORP-0060	Major Construction-Waste Treatment Plant	8,086,569	3,395,478	3,395,478	11,482,047	11,482,047
ORP-0061	Pre-Waste Treatment Plan, Transition Activity	433,314	0	0	433,314	433,314
ORP-0100	Office of River Protection Community and Regulatory Support	1,458	0	0	1,458	1,458
	Office of River Protection Total	14,796,777	50,971,161	58,643,824	65,767,938	73,440,601
Other						
CBC-0100-FN	CBC Post Closure Administration - Fernald	62,093	0	0	62,093	62,093
CBC-0100-MD	CBC Post Closure Administration - Mound	1,549	0	0	1,549	1,549

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
CBC-0100-RF	CBC Post Closure Administration - Rocky Flats	14,914	0	0	14,914	14,914
CBC-CA-0013B-N	Solid Waste Stabilization and Disposition-California Sites-2012 (Non-Defense)	6,226	0	0	6,226	6,226
CBC-CA-0100-N	Community and Regulatory Support (Non-Defense)	2,932	0	0	2,932	2,932
CH-OPS-0900	Pre-2004 Completions	98,862	0	0	98,862	98,862
CH-PPPL-0030	Soil and Water Remediation-Princeton Site A/B	309	0	0	309	309
CBC-SEFOR-0040N	Southwest Experimental Fast Oxide Reactor (SEFOR) to the University of Arkansas	0	1	1	1	1
NV-0030	Soil and Water Remediation - Offsites	88,373	0	0	88,373	88,373
OH-OPS-0900-D	Pre-2004 Completions	57,659	0	0	57,659	57,659
OH-OPS-0900-N	Pre-2004 Completions (Non-Defense)	396,924	0	0	396,924	396,924
VL-FAO-0100-D	Nuclear Material Stewardship (Defense)	108,725	0	0	108,725	108,725
VL-FAO-0100-N	Nuclear Material Stewardship (Non-Defense)	15,044	0	0	15,044	15,044
VL-FAO-0101	Miscellaneous Programs and Agreements	95,802	6,103	6,103	101,905	101,905

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
	in Principle					
VL-FAO-0900	Pre-2004 Completions	232,740	0	0	232,740	232,740
VL-FOO-0013B-D	Solid Waste	14,924	239	239	15,163	15,163
VL-FOO-0013B-N	Solid Waste Stabilization and Disposition-Oakland Sites-2012 (Non-Defense)	68	0	0	68	68
VL-FOO-0100-D	LLNL Community and Regulatory Support	5,617	0	0	5,617	5,617
VL-FOO-0100-N	Oakland Community and Regulatory Support (Non-Defense)	89	0	0	89	89
VL-FOO-0900-N	Pre-2004 Completions (Non-Defense)	20,896	0	0	20,896	20,896
VL-GA-0012	SNF Stabilization and Disposition-General Atomics	15,169	0	0	15,169	15,169
VL-SPRU-0040	Nuclear Facility D&D-Separations Process Research Unit	204,481	0	0	204,481	204,481
VL-SV-0100	South Valley Superfund	6,061	0	0	6,061	6,061
	Other Total	1,449,457	6,342	6,342	1,455,799	1,455,799
Paducah Gaseous Diffusion Plant						
GDP D&D	Nuclear Facility D&D-Paducah	0	5,800,000	12,500,000	5,800,000	12,500,000

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
PA-0011	NM Stabilization and Disposition-Paducah Uranium Facilities Management	47,966	12,478	12,935	60,444	60,901
PA-0011X	NM Stabilization and Disposition-Depleted Uranium Hexafluoride Conversion	590,996	1,881,747	1,881,747	2,472,743	2,472,743
PA-0013	Solid Waste Stabilization and Disposition	285,244	0	0	285,244	285,244
PA-0020	Safeguards and Security	81,182	66,133	70,320	147,315	151,502
PA-0040	Nuclear Facility D&D-Paducah	1,232,900	1,120,235	1,176,542	2,353,135	2,409,442
PA-0100	Paducah Community and Regulatory Support (Non-Defense)	10,534	0	0	10,534	10,534
PA-0102	Paducah Contract/Post-Closure Liabilities/Administration (D&D Fund)	37,669	3,391	4,096	41,060	41,765
PA-0103	Paducah Community and Regulatory Support (D&D Fund)	30,178	25,130	26,918	55,308	57,096
	Paducah Gaseous Diffusion Plant Total	2,316,669	8,909,114	15,672,558	11,225,783	17,989,227
Pantex Plant						
VL-PX-0030	Soil and Water Remediation-Pantex	191,067	0	0	191,067	191,067
VL-PX-0040	Nuclear Facility D&D-Pantex	15,209	0	0	15,209	15,209

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
	Pantex Plant Total	206,276	0	0	206,276	206,276
Portsmouth Gaseous Diffusion Plant						
PO-0011	NM Stabilization and Disposition-Portsmouth Uranium Facilities Management	101,708	0	0	101,708	101,708
PO-0011X	NM Stabilization and Disposition-Depleted Uranium Hexafluoride Conversion	569,317	1,192,129	1,192,129	1,761,446	1,761,446
PO-0013	Solid Waste Stabilization and Disposition	443,951	0	0	443,951	443,951
PO-0020	Safeguards and Security	168,449	563,052	563,052	731,501	731,501
PO-0040	Nuclear Facility D&D-Portsmouth	1,507,760	4,161,990	10,840,224	5,669,750	12,347,984
PO-0041	Nuclear Facility D&D-Portsmouth GCEP	66,094	0	0	66,094	66,094
PO-0101	Portsmouth Cold Standby	372,486	0	0	372,486	372,486
PO-0103	Portsmouth Contract/Post-Closure Liabilities/Administration (D&D Fund)	10,314	33,067	33,067	43,381	43,381
PO-0104	Portsmouth Community and Regulatory Support (D&D Fund)	7,722	15,543	15,543	23,265	23,265
	Portsmouth Gaseous Diffusion Plant Total	3,247,801	5,965,781	12,644,015	9,213,582	15,891,816

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
Program Direction						
HQ-PD-0100	Program Direction	5,172,580	6,739,838	6,739,838	11,912,418	11,912,418
	Program Direction Total	5,172,580	6,739,838	6,739,838	11,912,418	11,912,418
Rocky Flats Environmental Technology Site						
CBC-RF-0102	Rocky Flats Future Use	3,061	0	0	3,061	3,061
RF-0011	NM Stabilization and Disposition	470,485	0	0	470,485	470,485
RF-0013	Solid Waste Stabilization and Disposition	892,507	0	0	892,507	892,507
RF-0020	Safeguards and Security	300,388	0	0	300,388	300,388
RF-0030	Soil and Water	2,087,781	0	0	2,087,781	2,087,781
RF-0040	Nuclear Facility D&D-North Side Facility Closures	1,920,826	0	0	1,920,826	1,920,826
RF-0041	Nuclear Facility D&D-South Side Facility Closures	756,890	0	0	756,890	756,890
RF-0100	RFETS	102,257	2,383,683	2,383,683	2,485,940	2,485,940
RF-0101	Rocky Flats Community and Regulatory Support	37,041	0	0	37,041	37,041
	Rocky Flats Environmental Technology Site Total	6,571,236	2,383,683	2,383,683	8,954,919	8,954,919

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
Sandia National Laboratory						
VL-SN-0030	Soil and Water Remediation-Sandia	244,539	18,701	22,331	263,240	266,870
	Sandia National Laboratory Total	244,539	18,701	22,331	263,240	266,870
Savannah River Site						
HQ-SNF-0012X-SR	SNF Stabilization and Disposition-Storage Operations Awaiting Geologic Repository	68,140	0	0	68,140	68,140
SR-0011A	NM Stabilization and Disposition-2006	134,065	0	0	134,065	134,065
SR-0011B	NM Stabilization and Disposition-2012	3,671,583	0	0	3,671,583	3,671,583
SR-0011C	NM Stabilization and Disposition-2035	2,527,401	4,092,497	4,666,784	6,619,898	7,194,185
SR-0012	SNF Stabilization and Disposition	465,390	5,427,768	5,868,120	5,893,158	6,333,510
SR-0013	Solid Waste Stabilization and Disposition	1,847,021	4,945,150	5,472,718	6,792,171	7,319,739
SR-0014C	Radioactive Liquid Tank Waste Stabilization and Disposition-2035	9,508,842	13,729,690	17,157,505	23,238,532	26,666,347
SR-0014C-T	Radioactive Liquid Tank Waste Stabilization and Disposition-2035 (T)	137,603	0	0	137,603	137,603
SR-0020	Safeguards and Security	1,823,964	3,537,447	3,938,691	5,361,411	5,762,655
SR-0030	Area Completion	1,994,830	10,498,082	11,823,295	12,492,912	13,818,125

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
SR-0040	Nuclear Facility D&D	494,319	0	0	494,319	494,319
SR-0040B	Nuclear Facility D&D-2012	778	0	0	778	778
SR-0100	Non-Closure Mission Support	214,470	396,226	396,226	610,696	610,696
SR-0101	Savannah River Community and Regulatory Support	164,742	0	0	164,742	164,742
SR-0900	Pre-2004 Completions	198,242	0	0	198,242	198,242
	Savannah River Site Total	23,251,390	42,626,860	49,323,339	65,878,250	72,574,729
Stanford Linear Accelerator Center						
CBC-SLAC-0030	Soil and Water Remediation-Stanford Linear Accelerator Center	67,332	664	664	67,996	67,996
	Stanford Linear Accelerator Center Total	67,332	664	664	67,996	67,996
Technology Development and Deployment						
HQ-TD-0100	Technology Development	1,763,806	1,202,254	1,202,254	2,966,060	2,966,060
	Technology Development and Deployment Total	1,763,806	1,202,254	1,202,254	2,966,060	2,966,060
Waste Isolation Pilot Plant						
CB-0020	Safeguards and Security - WIPP	45,207	145,789	145,789	190,996	190,996
CB-0080	Operate Waste Disposal Facility-WIPP	2,466,041	2,571,399	2,944,603	5,037,440	5,410,644

Environmental Management Lifecycle Costs by Program Baseline Summary (PBS) ($K)						
PBS Code	**PBS Name**	**Prior Costs (97 - 2013)**	**FY14 and Remaining Cost (Low Range)**	**FY14 and Remaining Cost (High Range)**	**Lifecycle Cost (Low Range)**	**Lifecycle Cost (High Range)**
CB-0081	Central Characterization Project	349,495	296,292	350,905	645,787	700,400
CB-0090	Transportation-WIPP	427,749	453,620	516,780	881,369	944,529
CB-0100	US/Mexico/Border/Material Partnership	11,405	0	0	11,405	11,405
CB-0101	Community and Regulatory Support	258,398	0	0	258,398	258,398
CB-0900	Pre-2004 Completions	7,137	0	0	7,137	7,137
	Waste Isolation Pilot Plant Total	3,565,432	3,467,100	3,958,077	7,032,532	7,523,509
West Valley Demonstration Project						
OH-WV-0012	SNF Stabilization and Disposition-West Valley	32,319	0	0	32,319	32,319
OH-WV-0013	Nuclear Facility D&D West Valley	318,095	140,785	140,785	458,880	458,880
OH-WV-0014	Radioactive Liquid Tank Waste Stabilization and Disposition-West Valley High-Level Waste Storage	0	0	0	0	0
OH-WV-0020	Safeguards and Security-West Valley	25,477	38,285	38,849	63,762	64,326
OH-WV-0040	Nuclear Facility D&D-West Valley	715,514	575,458	684,315	1,290,972	1,399,829
	West Valley Demonstration Project Total	1,091,405	754,528	863,949	1,845,933	1,955,354
	Grand Total	109,426,378	180,901,838	218,982,271	290,326,096	328,406,529

Environmental Management Project Schedule Range 50% to 80% Confidence Level (Single date indicates both 50% and 80% Confidence Levels are the same)	
Site	**Completion Date**
Stanford Linear Accelerator Center	2014
Los Alamos National Laboratory	2015[a]
Separations Process Research Unit	2015 - 2016
Brookhaven National Laboratory	2019
Lawrence Livermore National Laboratory	2020
Sandia National Laboratory	2020
Energy Technology Engineering Center	2020 - 2025
Oak Ridge	2021 - 2022
Moab	2025
Nevada Nuclear Security Site	2030
Waste Isolation Pilot Plant	2035 - 2039
Paducah Gaseous Diffusion Plant	2038
Portsmouth Gaseous Diffusion Plant	2044 - 2052
Idaho National Laboratory	2042 - 2050
Savannah River Site	2042
West Valley Demonstration Project	2040 - 2045
Hanford Site	2070

[a]EM will continue to aggressively pursue cleanup at LANL in accordance with the Consent Order while working with regulators to facilitate cleanup as quickly as possible.

Carlsbad

Overview

The Carlsbad Field Office will support the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and Cold War activities. The Carlsbad Field Office has the responsibility for management of the National Transuranic Waste Program and the Waste Isolation Pilot Plant, the Nation's only mined geologic repository for the permanent disposal of defense-generated transuranic waste. The Carlsbad Field Office's National Transuranic Waste Program coordinates with all DOE sites that generate transuranic waste to retrieve, repackage, characterize, ship, and dispose of transuranic waste resulting in cleaning up sites, reducing risks, and decreasing nuclear footprints. This involves a number of activities: characterizing, transporting, storing and disposing of legacy transuranic wastes that have been stored at DOE sites for decades, as well as, transuranic wastes generated through ongoing facility deactivation, environmental remediation activities at currently contaminated DOE sites and transuranic wastes generated by other DOE mission activities.

Direct maintenance and repair at the Carlsbad Field Office is estimated to be $14,434,000 in FY 2015.

Highlights of the FY 2015 Budget Request

The funding supports the operation of the Waste Isolation Pilot Plant (Operations, Central Characterization Program and Transportation) at a capability to receive up to 26 shipments per week (contact-handled and remote-handled transuranic waste combined) for an estimated 41 shippable weeks including full year Central Characterization Program for legacy transuranic waste disposition at Idaho National Laboratory (transportation certification only, where Idaho National Laboratory funds characterization certification), Los Alamos National Laboratory, and the Oak Ridge National Laboratory. The funding also supports newly generated transuranic waste disposition at Los Alamos National Laboratory (where National Nuclear Security Administration funds certifications costs), and Savannah River Site (where Savannah River Site funds certification costs).

FY 2015 Key Milestones/Outlook

- (Jan 2015) Implement new panel closure design with closures installed in all filled panels.

Regulatory Framework

The Waste Isolation Pilot Plant has four primary regulators: 1) the Environmental Protection Agency, which regulates the radioactive constituents of waste and repository certification; 2) the New Mexico Environment Department, which regulates the hazardous constituents of waste; 3) the Nuclear Regulatory Commission, which certifies Type B shipping containers; and 4) the Department of Transportation, which regulates highway transportation and Type B shipping containers.

In the Waste Isolation Pilot Plant Land Withdrawal Act of 1992, as amended, (Public Law 102-579), Congress established regulatory conditions and standards covering limits on the types and quantities of waste that DOE could place in the repository. The Waste Isolation Pilot Plant operates under a renewed Resource Conservation and Recovery Act, Part B, Hazardous Waste Facility Permit issued by the New Mexico Environment Department in December 2010. The Environmental Protection Agency regulates the Waste Isolation Pilot Plant under specific criteria established in 40 Code of Federal Regulations Part 194 that require DOE to demonstrate that the Waste Isolation Pilot Plant would meet containment standards. The Environmental Protection Agency initially certified the Waste Isolation Pilot Plant's compliance with these regulations on May 18, 1998. The Department received its second Compliance Recertification from the Environmental Protection Agency in March 2006, and the third in November 2010. The fourth Compliance Recertification Application will be submitted in 2014.

Contractual Framework

Program planning and management at the Carlsbad Field Office, which manages the nation's only transuranic waste repository, is conducted through the issuance and execution of contracts to large and small businesses. The Carlsbad Field Office develops near-term and long-term planning approaches in order to develop contract strategies and operations plans at a more detailed level. Selected contractors then execute these plans to complete cleanup.

The Waste Isolation Pilot Plant contract is a Management and Operating Contract. It was awarded to Nuclear Waste Partnership, LLC, on a cost plus award fee basis (with mostly Performance Based Incentives) with a base performance period of October 1, 2012, to September 30, 2017, with one 5 year option period of October 1, 2017, to September 30, 2022.

This contract covers all site operations at the Waste Isolation Pilot Plant, including the receipt and handling of transuranic waste shipments, characterization of waste at generator sites, and verification/certification of waste documentation.

The Carlsbad Field Office also manages several small non-Management and Operating contracts which provide management analysis, site integration, transportation services, transportation communications support, and electric utilities. This includes prime small business contracts with Cast Specialty Transportation, Inc, and Visionary Solutions for transportation services. These are indefinite delivery/indefinite quantity contracts. The Cast Specialty contract is for the period January 9, 2012, to January 12, 2017. The Visionary Solutions contract is for the period January 9, 2012, to July 27, 2017. As transportation requirements become known during the term of the contract, the Contracting Officer will place fixed price per unit task orders with each contractor for the transportation of transuranic waste. There are two contracts to allow peaks in transportation needs to be addressed.

Strategic Management

In support of the Department's Strategic Plan, the Carlsbad Field Office will continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and Cold War activities. The Department will work aggressively to address cleanup priorities at Transuranic Waste Sites across the complex through disposal of transuranic waste streams. The Carlsbad Field Office is key to the ultimate cleanup across the DOE complex, as well as, support to other DOE mission programs.

Carlsbad
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
Waste Isolation Pilot Plant						
CB-0080 / Operate Waste Disposal Facility-WIPP	137,157	153,516	0	153,516	145,316	-8,200
CB-0081 / Central Characterization Project	37,105	33,200	0	33,200	41,647	+8,447
CB-0090 / Transportation-WIPP	23,576	29,477	0	29,477	29,057	-420
Subtotal, Waste Isolation Pilot Plant	**197,838**	**216,193**	**0**	**216,193**	**216,020**	**-173**
Safeguards and Security						
CB-0020 / Safeguards and Security	4,455	4,977	0	4,977	4,455	-522
Total, Defense Environmental Cleanup	**202,293**	**221,170**	**0**	**221,170**	**220,475**	**-695**

Carlsbad
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup	
Safeguards and Security	
CB-0020 / Safeguards and Security	
• The reduction is the result of applying risk management prioritization to site security services to optimize efficiency in site access operations (barricades and badge issuance), personnel security clearances, cyber security maintenance and testing, materials safeguards monitoring, and protective force staffing and training.	-522
Waste Isolation Pilot Plant	
CB-0080 / Operate Waste Disposal Facility-WIPP	
• Decrease primarily reflects planned construction completion of new support building.	-8,200
CB-0081 / Central Characterization Project	
• Increase reflects a higher level of waste of characterization and certification activities conducted at generator sites, especially at Oak Ridge.	+8,447
CB-0090 / Transportation-WIPP	
• No significant change.	-420
Total, Carlsbad	**-695**

Operate Waste Disposal Facility-WIPP (PBS: CB-0080)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This operation supports activities related to the disposal of contact-handled and remote-handled transuranic waste at the Waste Isolation Pilot Plant. Key elements of this system are: 1) operation of the disposal repository – including mining, waste handling, and the infrastructure to safely maintain the facility and operations in compliance with all Federal and state laws, regulations, and environmental requirements; 2) Environmental Compliance – maintenance of compliance certification through monitoring and verifying the performance of the systems sensitive parameters; and 3) National Transuranic Waste Program – integration and infrastructure activities required to certify the transuranic waste and coordinate all activities across the transuranic waste complex for shipments of waste to the Waste Isolation Pilot Plant. Contact-handled transuranic waste disposal began in 1999; remote-handled transuranic waste disposal began in 2007. Although the volume of waste emplaced each year is dependent upon the specific waste streams shipped and payload constraints, the cumulative actual volumes of transuranic waste (in cubic meters) emplaced at the Waste Isolation Pilot Plant Repository through FY 2013 has led to the removal of all legacy transuranic waste from 22 sites across the United States.

UPDATED: Data current as of January 31, 2014

Transuranic Waste Emplaced in the WIPP Repository

Contact Handled (CH), Container Volume by Site (cubic meters)											
Fiscal Year	**ANL-E**	**Hanford**	**INL**	**LANL**	**LLNL**	**NTS**	**ORNL**	**RFETS**	**SRS**	**WIPP**	**Cumulative Total**
1999	0	0	15	190	0	0	0	62	0	0.0	**266**
2000	0	13	87	0	0	0	0	252	0	0.0	**618**
2001	0	68	717	74	0	0	0	1044	62	0.3	**2,583**
2002	0	18	2065	8	0	0	0	2903	141	0.5	**7,717**
2003	97	250	567	327	0	0	0	4017	2285	0.0	**15,259**
2004	24	448	342	0	0	106	0	4650	3240	0.2	**24,069**
2005	0	853	2564	171	146	235	0	2134	1554	0.0	**31,726**
2006	0	715	7890	546	0	64	0	0	1340	0.0	**42,282**
2007	0	765	5390	823	0	0	0	0	1548	0.0	**50,808**
2008	0	622	3304	689	0	0	12	0	1267	0.3	**56,703**
2009	0	9	4621	727	0	0	37	0	719	2.5	**62,817**
2010	0	475	5114	1063	0	0	230	0	862	0.0	**70,561**
2011	0	825	4211	1014	0	0	79	0	1138	0.0	**77,827**
2012	0	0	2620	1514	0	0	57	0	1469	0.0	**83,487**
2013	0	0	2101	1463	0	0	0	0	1465	0.0	**88,516**
2014*	0	0	1043	524	0	0	0	0	394	0	**90,477**
Site Totals:	**121**	**5,061**	**42,649**	**9,131**	**146**	**405**	**415**	**15,062**	**17,484**	**4**	**90,477**

Remote Handled (RH), Container Volume by Site (cubic meters)									
Fiscal Year	**ANL-E**	**BAPL**	**GEVNC**	**INL**	**LANL**	**ORNL**	**SNL**	**SRS**	**Cumulative Total**
2007	0.0	0.0	0.0	22.7	0.0	0.0	0.0	0.0	**22.7**
2008	2.5	0.0	0.0	47.4	0.0	0.0	0.0	0.0	**72.6**
2009	7.4	0.0	0.6	15.7	14.2	5.0	0.0	18.4	**134.0**
2010	7.3	0.0	19.1	18.9	0.0	32.8	0.0	0.0	**212.1**
2011	17.5	1.9	0.0	17.4	0.0	5.0	0.0	5.0	**259.0**
2012	15.4	1.3	0.0	14.7	0.0	3.2	4.6	1.7	**299.7**
2013	12.9	0.0	0.0	38.9	0.0	0.0	0.0	0.0	**351.5**
2014*	3.7	0	0	1.1	0	0	0	0	**356.3**
Site Totals:	**66.6**	**3.2**	**19.7**	**176.8**	**14.2**	**46.0**	**4.6**	**25.1**	**356.3**

*Data is as of January 31, 2014

The volumes provided here reflect certified TRU waste volumes emplaced at the Waste Isolation Pilot Plant, including total unfilled disposal package volume. This differs from the "TRU Dispositioned" corporate performance metric, which reflects waste inventories at generator sites, prior to full characterization and processing. A significant portion of the "TRU Dispositioned" inventory may be disposed of, after characterization, as low-level waste which is not disposed at the Waste Isolation Pilot Plant.

Operate Waste Disposal Facility-WIPP (PBS: CB-0080)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
153,516	**145,316**	**-$8,200**
• Maintain safety and personnel health programs, surface and underground operations and maintenance, program administration, generator site interface, public affairs programs, payments to the National Institute of Standards and Technology and other organizations for independent oversight, environmental oversight, and right-of-ways. • Provide materials required for disposal of contact-handled transuranic waste including slip sheets and MgO (Magnesium Oxide), as well as, engineering services and contact-handled transuranic waste handling (including support for TRUPACT-III and payload containers at the generator sites and the Waste Isolation Pilot Plant). • Support handling of remote-handled waste, borehole drilling, and shield plugs required at the Waste Isolation Pilot Plant to receive and dispose of remote-handled transuranic waste. • Support handling of contact-handled waste to receive and dispose of contact-handled transuranic waste at the Waste Isolation Pilot Plant. • Provide funding for 40 Code of Federal Regulations Part 191/194 compliance, site environmental compliance, Resource Conservation and Recovery Act permit compliance, Quality Assurance, and payments to regulatory agencies.	• Maintain safety and personnel health programs, surface and underground operations and maintenance, program administration, generator site interface, public affairs programs, payments to the National Institute of Standards and Technology and other organizations for independent oversight, environmental oversight, and right-of-ways. • Provide materials required for disposal of contact-handled transuranic waste including slip sheets and MgO (Magnesium Oxide), as well as engineering services and contact-handled transuranic waste handling (including support for TRUPACT-III and payload containers at the generator sites and the Waste Isolation Pilot Plant). • Support handling of remote-handled waste, borehole drilling, and shield plugs required at the Waste Isolation Pilot Plant to receive and dispose of remote-handled transuranic waste. • Support handling of contact-handled waste to receive and dispose of contact-handled transuranic waste at the Waste Isolation Pilot Plant. • Provide funding for 40 Code of Federal Regulations Part 191/194 compliance, site environmental compliance, Resource Conservation and Recovery Act permit compliance, Quality Assurance, and payments to regulatory agencies.	• Decrease reflects planned operational efficiencies while maintaining steady state operations.

Operate Waste Disposal Facility-WIPP (PBS: CB-0080)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
• Address infrastructure maintenance such as obsolete equipment, obsolete controls, and degradation of some critical site components. • Support underground fan renovation, capital equipment purchases, road maintenance, facility modifications and construction, as well as upgrade underground fiber optic cabling. • Support site maintenance items; there will be an annual Waste Isolation Pilot Plant site maintenance outage to allow for maintenance functions in the underground and surface facility. • Continue new panel closure design with closures installed in all filled panels. Support receipt of up to 21 shipments per week, which increases DOE's ability to support transuranic waste generator sites commitments to corresponding federal, state, and local agencies.	• Support site routine general maintenance items; there will be an annual Waste Isolation Pilot Plant site maintenance outage to allow for maintenance functions in the underground and surface facility. • Implement new panel closure design with closures installed in all filled panels.	

Central Characterization Project (PBS: CB-0081)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The Carlsbad Field Office manages the National Transuranic Waste Integration Program—integration and infrastructure activities required to certify the transuranic waste and coordinate all activities across the transuranic waste complex for shipments of waste to the Waste Isolation Pilot Plant.

This project scope includes labor, materials, and supplies for operation of mobile waste characterization systems deployed to DOE generator sites for characterization of transuranic waste to be disposed at the Waste Isolation Pilot Plant, as well as centralized transuranic waste analytical services at the Carlsbad Environmental Monitoring and Research Center. It also includes generator site services at selected sites to characterize transuranic waste for transportation to the Waste Isolation Pilot Plant or to another site for final certification, when cost-effective. The use of mobile systems provides generator sites with a highly regulated program that has already been certified for use. DOE reviews have concluded that the Central Characterization Program provides the most cost-effective and reliable characterization capabilities. This program also provides a DOE-wide single certification program for remote-handled transuranic waste shipments to the Waste Isolation Pilot Plant at the generator/shipping sites and a DOE-wide transuranic waste shipping confirmation process required by the Waste Isolation Pilot Plant's Hazardous Waste Facility Permit issued by the New Mexico Environment Department.

Central Characterization Project (PBS: CB-0081)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
33,200	**41,647**	**+$8,447**
• Provide acceptable knowledge and procedural support, mobile waste loading support at select generator sites, waste certification support, headspace gas analysis, and soils and solids analysis required for characterization activities. • Support generator site interface for the Central Characterization Project activities, Central Characterization Project administration, and Performance Demonstration Program for Resource Conservation and Recovery Act constituents. • Support Central Characterization Program for legacy transuranic waste disposition at Idaho	• Provide acceptable knowledge and procedural support, mobile waste loading support at select generator sites and waste certification support required for characterization activities. • Support generator site interface for the Central Characterization Project activities, Central Characterization Project administration, and Performance Demonstration Program for Resource Conservation and Recovery Act constituents. • Support Central Characterization Program for legacy transuranic waste disposition at Idaho National Laboratory (transportation certification	• Increase reflects a higher level of waste of characterization and certification activities conducted at generator sites, especially at Oak Ridge.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
National Laboratory (transportation certification only, where Idaho National Laboratory funds characterization certification), Los Alamos National Laboratory, and the Oak Ridge National Laboratory. • Support Central Characterization Program for newly generated transuranic waste disposition at Los Alamos National Laboratory (where National Nuclear Security Administration funds certification costs), and Savannah River Site (where Savannah River Site funds certification costs).	only, where Idaho National Laboratory funds characterization certification), Los Alamos National Laboratory, and the Oak Ridge National Laboratory. • Support Central Characterization Program for newly generated transuranic waste disposition at Los Alamos National Laboratory (where National Nuclear Security Administration funds certification costs), and Savannah River Site (where Savannah River Site funds certification costs).	

Transportation-WIPP (PBS: CB-0090)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This program includes all transportation activities required to support the disposal of both contact-handled and remote-handled transuranic waste to the Waste Isolation Pilot Plant, or transport to other designated sites for treatment and/or characterization prior to shipment for disposal. This includes carrier services, transportation packaging, shipping coordination, and stakeholder interfaces related to transportation. As required in the Waste Isolation Pilot Plant Land Withdrawal Act, as amended, this program provides for technical assistance to states and communities for the purpose of training public safety officials and other emergency responders in any State or Indian tribal lands through which DOE plans to transport transuranic waste to or from the Waste Isolation Pilot Plant and inter-site transfers of transuranic waste.

Transportation-WIPP (PBS: CB-0090)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
29,477	**29,057**	**-$420**
• Provides funding for the carrier contracts. • Supports shipping corridor readiness, contact-handled and remote-handled waste packaging, and shipping services, including Nuclear Regulatory Commission fees. • Supports a nominal rate of up to 21 shipments (contact-handled and remote-handled combined) per week for 41 weeks per year to the Waste Isolation Pilot Plant. These shipments will be from generator sites, mainly Idaho, Los Alamos National Laboratory, Savannah River Site, and Oak Ridge National Laboratory, where characterization activities are being performed to the Waste Isolation Pilot Plant. Actual shipment rate will depend on specific waste streams certified and available for shipment and the respective type of shipping package used. Packaging to be used in transport waste will include TRUPACT II's, Half	• Provides funding for the carrier contracts. • Supports shipping corridor readiness, contact-handled and remote-handled waste packaging, and shipping services including Nuclear Regulatory Commission fees. • Supports up to 26 shipments (contact-handled and remote-handled combined) per week for 41 weeks per year. These shipments will be from generator sites, mainly Idaho National Laboratory, Los Alamos National Laboratory, Savannah River Site, and Oak Ridge National Laboratory, where characterization activities are being performed to the Waste Isolation Pilot Plant. Actual shipment rate will depend on specific waste streams certified and available for shipment and the respective type of shipping package used. Packaging to be used in transport waste will include TRUPACT II's, Half PACTS, TRUPACT III's,	• No significant change.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
PACTS, TRUPACT III's, and RH-72B's (for remote-handled and contact-handled transuranic waste).	and RH-72B's (for remote-handled and contact-handled transuranic waste).	

Safeguards and Security (PBS: CB-0020)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The Waste Isolation Pilot Plant in Carlsbad, New Mexico, is the nation's only mined geologic repository for the permanent disposal of defense-generated transuranic waste. The scope of the Security Program at the Waste Isolation Pilot Plant includes, but is not limited to, planning, administering, and executing a program that protects government assets and ensures the security of disposed sensitive wastes.

Safeguards and Security (PBS: CB-0020)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
4,977	**4,455**	**-$522**
• Maintain the physical, information, personnel, and cyber security activities required to manage and operate secure facilities and programs at the Waste Isolation Pilot Plant. • Repair/upgrade of security systems or the replacement of antiquated security equipment at the Waste Isolation Pilot Plant. • Initiate special safeguarded waste campaigns.	• Provide site safeguards and security services for protection program management, emergency response, physical security, information protection, Protective Force, Personnel Security, Cyber Security and Nuclear Material Control and Accountability supporting site cleanup mission priorities and protecting government equipment, materials, information, and the site workforce. • Design and implement enhanced security posture to support receipt of transuranic waste from Savannah River Site's surplus plutonium disposition project.	• The reduction is the result of applying risk management prioritization to site security services to optimize efficiency in site access operations (barricades and badge issuance), personnel security clearances, cyber security maintenance and testing, materials safeguards monitoring, and protective force staffing and training.

Carlsbad Capital Summary ($K)

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Current
Capital Operating Expenses Summary (including (Major Items of Equipment (MIE))							
Plant Projects (GPP and IGPP) (<$10M)	**0**	**0**	**0**	**8,607**	**8,607**	**914**	**-7,693**
Total, Capital Operating Expenses	**0**	**0**	**0**	**8,607**	**8,607**	**914**	**-7,693**
Plant Projects (GPP and IGPP) (Total Estimated Cost (TEC) <$10M)							
Waste Isolation Pilot Plant							
Upgrade Site PA system	0	0	0	250	250	0	-250
Sandblast and Repaint Salt Hoist Headframe	0	0	0	0	0	220	+220
Sandblast and Repaint AIS Headframe	0	0	0	110	110	0	-110
Replace obsolete equipment on Met Tower	0	0	0	200	200	0	-200
Replacement of Central UPS	0	0	0	259	259	0	-259
Upgrade Automatic Guided Vehicles software	0	0	0	0	0	90	+90
Repair/Refurbish 140/25 Ton for Continuous Use	0	0	0	140	140	0	-140
Repair/Refurbish Pivot Rail Equipment Salt Hoist	0	0	0	0	0	4	+4
Upgrade Remote Handled Waste Swipe Robot	0	0	0	0	0	100	+100
Replace Facility Cask Loading Room Turntable	0	0	0	148	148	0	-148
Refurbish Bldg 451 – Skin, Interior, Showers, Locker, HVAC	0	0	0	0	0	500	+500
New Support Building (estimate sq. ft. 50,000)	0	0	0	7,500	7,500	0	-7,500
Total, Waste Isolation Pilot Plant	**0**	**0**	**0**	**8,607**	**8,607**	**914**	**-7,693**
Total, Plant Projects (GPP and IGPP) (Total Estimated (TEC) <$10M	**0**	**0**	**0**	**8,607**	**8,607**	**914**	**-7,693**
Total, Capital Summary	**0**	**0**	**0**	**8,607**	**8,607**	**914**	**-7,693**

Idaho

Overview

The Idaho Site will support the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and Cold War activities. The Idaho Cleanup Project is responsible for the treatment, storage and disposition of a variety of radioactive and hazardous waste streams, removal and disposition of targeted buried waste, protection of the Snake River Plain Aquifer, removal or deactivation of unneeded facilities, and the removal of DOE's inventory of spent (used) nuclear fuel and high level waste from Idaho.

By the end of FY 2015, the Idaho Site is expected to have achieved significant risk reduction, in particular, removal of sodium bearing waste from tanks above the aquifer. Near-term remaining work includes Subsurface Disposal Area waste exhumation, closure of the tank farm and placement of all nuclear materials in safe storage ready for disposal.

Longer term work-scope will include any remaining legacy spent (used) nuclear fuel not acceptable for Nuclear Energy's missions, decontamination and decommissioning, and completing Comprehensive Environmental Response, Compensation and Liability Act Record of Decision cleanup requirements, including TAN groundwater remediation, completion of buried waste exhumations, and final caps.

Direct maintenance and repair at the Idaho National Laboratory is estimated to be $22,700,000.

Highlights of the FY 2015 Budget Request

The waste being encountered is more difficult than initially planned. Issues such as sodium contamination on remote-handled transuranic waste and greater than expected volume expansion during treatment of contact-handled transuranic sludge waste have created additional challenges that require additional funding to adequately address. The additional funding is needed to support longer processing times and additional material needs than were initially anticipated.

The funding request reflects the increased costs associated with delays in starting sodium bearing waste treatment operations, which results in an additional year of operations. An overpressure event occurred with the liquid waste processing facility in 2012, which has resulted in an additional year of operation of the facility beyond baseline the plan.

The request reflects significant progress in completing buried waste exhumation under the Accelerated Retrieval Project. Six of the total 9 retrieval areas have been completed to date.

FY 2015 Key Milestones/Outlook

- (Dec 2014) Maintain a 2000 m3 Rolling Average of Legacy TRU Waste Over Three Years Shipped Out of Idaho
- (Dec 2014) Complete treatment of Sodium Bearing Waste.

Regulatory Framework

There are two primary regulators of the Idaho Site: the United States Environmental Protection Agency, and the State of Idaho Department of Environmental Quality. The United States Nuclear Regulatory Commission monitors DOE activities related to radioactive liquid waste tank stabilization and disposition. It also licenses the Independent Spent Fuel Storage Installation containing Three Mile Island fuel debris. Five primary compliance agreements, amendments and consent orders executed between 1991 and 2000 govern cleanup work at the Idaho National Laboratory Site. Those five agreements encompass the majority of the cleanup requirements and commitments. The five primary agreements are:

Federal Facility Agreement and Consent Order (1991): The Federal Facility Agreement and Consent Order for the Idaho National Engineering Laboratory between DOE, the United States Environmental Protection Agency, and Idaho Department of Environmental Quality established a strategy and plan for cleanup at the Idaho Site. The agreement divides the Idaho Site into ten waste area groups based on similar characteristics or geographic boundaries. Nine groups generally correspond to

the Site's major facility areas. The tenth group assesses overall risk to the aquifer beneath the site, addresses sites outside the boundaries of the Idaho Site's primary facility areas, and allows for inclusion of newly identified release sites.

Notice of Non-Compliance Consent Order (1992): This consent order (between DOE, the State of Idaho Department of Environmental Quality, and the United States Environmental Protection Agency) establishes actions and milestones to resolve Resource Conservation and Recovery Act inspection issues including configuration of stored transuranic waste and liquid waste in the Idaho Nuclear Technology and Engineering Center tank farm.

Idaho Settlement Agreement (1995): This agreement (between DOE, State of Idaho, and United States Navy) resolved a lawsuit regarding the receipt of spent (used) nuclear fuel at the Idaho National Laboratory. The agreement specifies milestones such as the removal of all spent (used) nuclear fuel from the Idaho Site by January 1, 2035, and treatment of liquid radioactive waste by December 31, 2012. (An overpressure event occurred with the liquid waste processing facility in 2012, which has caused the treatment completion date to slip to December 2014.)

Site Treatment Plan: To fulfill requirements in the 1992 Federal Facility Compliance Act, the Idaho National Engineering Laboratory prepared the Idaho National Engineering Laboratory Site Treatment Plan to address the treatment and long-term storage of mixed low-level waste (radioactive waste mixed with hazardous chemicals). The plan also has prescriptive schedules and requirements for processing of mixed waste. This enforceable plan was approved by the State of Idaho and is updated annually.

Section 3116 of the Ronald W. Reagan National Defense Authorization Act of FY 2005 (Public Law 108-375): The Federal Facility Agreement defines the enforceable commitments for completing the closure of non-compliant radioactive waste tanks at Idaho. Originally, all tanks were to be closed in accordance with the waste incidental to reprocessing methodology in DOE Order 435.1. Section 3116 of the FY 2005 National Defense Authorization Act allows the Secretary of Energy, in consultation with the Nuclear Regulatory Commission, to determine when waste from reprocessing of spent (used) nuclear fuel is appropriate for onsite disposal as other than high level waste when certain criteria are met. To meet criteria established in the statute, DOE must remove waste to the maximum extent practical.

Contractual Framework

Program planning and management at the Idaho Cleanup Project is conducted through the issuance and execution of contracts to large and small businesses. Idaho develops near-term-and long-term planning approaches in order to develop contract strategies and program/project plans at a more detailed level. Selected contractors then execute these plans to complete cleanup on schedule.

- The main contractor for EM work at Idaho is CH2M-WG Idaho, LLC. The Idaho Cleanup Project contract is a cost plus incentive basis with performance from March 23, 2005, to September 30, 2015. There are no options on the contract. This contract covers spent (used) nuclear fuel and high-level waste storage and disposition, sodium bearing tank waste disposition, soil and groundwater remediation, and decommissioning work at the site.
- The Idaho Treatment Group, LLC, contractor performs waste processing at the Advanced Mixed Waste Treatment Project. The Idaho Treatment Group is responsible for processing and disposing of transuranic waste and mixed low-level waste retrievably stored at the Idaho site's transuranic waste storage area. The period of performance for that contract is October 1, 2011, to September 30, 2015. There are no options.
- The site is currently in the early stages of acquisition planning (through a master acquisition plan) for the future EM cleanup efforts at the site.

Strategic Management

The Idaho site will identify disposal pathways and schedules for liquid sodium-bearing waste, tank farm closure, calcined waste, and spent (used) nuclear fuel to meet key Idaho National Laboratory commitments.

The following factors present the strongest impacts to the overall achievement of the program's strategic goal:

- Availability of shipping assets (containers, tractors, trailers and drivers, and shipping schedules) for the shipment of transuranic waste to the Waste Isolation Pilot Plant.
- Availability of spent (used) nuclear fuel data and inter-site coordination for foreign and domestic research reactor receipts;
- Off-site disposition of the high-level waste and spent (used) nuclear fuel.

Idaho
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
Idaho National Laboratory						
Idaho Cleanup and Waste Disposition						
ID-0012B-D / SNF Stabilization and Disposition-2012 (Defense)	7,300	7,450	0	7,450	12,400	+4,950
ID-0013 / Solid Waste Stabilization and Disposition	187,258	212,980	0	212,980	191,800	-21,180
ID-0014B / Radioactive Liquid Tank Waste Stabilization and Disposition-2012	110,950	106,600	0	106,600	84,650	-21,950
ID-0030B / Soil and Water Remediation-2012	46,487	56,270	0	56,270	75,443	+19,173
Subtotal, Idaho Cleanup and Waste Disposition	**351,995**	**383,300**	**0**	**383,300**	**364,293**	**-19,007**
Idaho Community and Regulatory Support						
ID-0100 / Idaho Community and Regulatory Support	3,771	3,700	0	3,700	2,910	-790
Total, Idaho National Laboratory	**355,766**	**387,000**	**0**	**387,000**	**367,203**	**-19,797**
Non-Defense Environmental Cleanup						
Small Sites						
Idaho National Laboratory						
ID-0012B-N / SNF Stabilization and Disposition-2012 (Non-Defense)	4,863	4,993	0	4,993	4,900	-93
Total, Idaho	**360,629**	**391,993**	**0**	**391,993**	**372,103**	**-19,890**

Idaho
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup	
Idaho National Laboratory	
Idaho Cleanup and Waste Disposition	
ID-0012B-D / SNF Stabilization and Disposition-2012 (Defense)	
• The increase reflects planned resumption of offsite fuel receipts following completion of sodium bearing waste treatment operations and supports efforts to replace the resin bed in the Chemical Processing Plant building-666.	+4,950
ID-0013 / Solid Waste Stabilization and Disposition	
• The decrease reflects anticipated completion of processing EM owned remote-handled wastes in mid FY 2015.	-21,180
ID-0014B / Radioactive Liquid Tank Waste Stabilization and Disposition-2012	
• The decrease reflects anticipated completion of sodium bearing waste operations in early FY 2015.	-21,950
ID-0030B / Soil and Water Remediation-2012	
• The increase reflects an increased rate of buried waste exhumation activities, consistent with the approved project plans.	+19,173
Idaho Community and Regulatory Support	
ID-0100 / Idaho Community and Regulatory Support	
• The decrease reflects reduced funding requirements in the area of groundwater monitoring activities.	-790
Non-Defense Environmental Cleanup	
Small Sites	
ID-0012B-N / SNF Stabilization and Disposition-2012 (Non-Defense)	
• The decrease reflects efficiencies realized in spent nuclear fuel management activities.	-93
Total, Idaho	**-19,890**

SNF Stabilization and Disposition-2012 (Defense) (PBS: ID-0012B-D)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This project includes safe and secure storage of legacy spent (used) nuclear fuel and managing the receipt of off-site spent (used) nuclear fuel shipments. EM currently manages and stores approximately 262 metric tons of spent (used) nuclear fuel at the Idaho Site and in Colorado. The EM plan includes the receipt of approximately 22 metric tons of spent nuclear fuel from off-site locations, including Foreign and Domestic Research Reactor spent (used) nuclear fuel from FY 2005 through FY 2027.

SNF Stabilization and Disposition-2012 (Defense) (PBS: ID-0012B-D)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
7,450	**12,400**	**+$4,950**
• Maintain all dry spent (used) nuclear fuel storage facilities. • Maintain the Chemical Processing Plant building-666 spent (used) nuclear fuel wet basin and facility. • Retrieve EBR II fuel from storage for transfer to the Materials and Fuels Complex. • Conduct scientific applied research and technology development activities to assure safe extended storage of spent (used) nuclear fuel. • Receive and store up to 15 shipments of Advanced Test Reactor spent (used) nuclear fuel.	• Maintain all dry spent (used) nuclear fuel storage facilities. • Maintain the Chemical Processing Plant building-666 and 603 with accompanying spent (used) nuclear fuel. • Retrieve EBR II fuel from storage for transfer to the Materials and Fuels Complex. • Conduct scientific applied research and technology development activities to assure safe extended storage of spent (used) nuclear fuel. • Receive and store up to 15 shipments of Advanced Test Reactor spent (used) nuclear fuel. • Replace resin bed in Chemical Processing Plant building-666. • Plan for and resume receipt of foreign and domestic research reactor spent (used) nuclear fuel from off-site.	• The increase reflects planned resumption of offsite fuel receipts following completion of sodium bearing waste treatment operations and supports efforts to replace the resin bed in the Chemical Processing Plant building-666.

Solid Waste Stabilization and Disposition (PBS: ID-0013)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This waste treatment and disposal activity accelerates the disposition of stored transuranic waste, low-level waste, Resource Conservation and Recovery Act hazardous waste, and mixed low-level waste backlog; closes on-site low-level waste disposal facilities at the Radioactive Waste Management Complex; and accelerates the consolidation of waste management facilities to reduce operating costs. The various waste inventories to be disposed by this project were generated primarily by other DOE sites and also active operations at the Idaho Site. Completion of these activities is necessary for reducing the footprint and completing cleanup of the site.

Solid Waste Stabilization and Disposition (PBS: ID-0013)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
212,980	**191,800**	**-$21,180**
• Provide for site-wide environmental compliance. • Maintain and operate the Radioactive Waste Management Complex infrastructure including utility systems, project management, engineering, training, environmental safety and health and quality assurance. This project also includes monitoring of air, water, soils, and biota (plant and animal life) surveillance. • Meet requirements of the Idaho Settlement Agreement and Site Treatment Plan by disposing of remote-handled low-level waste at the Radioactive Waste Management Complex disposal facility; repackage and characterize remote-handled transuranic waste at the Idaho Nuclear Technology and Engineering Center in preparation for shipment to the Waste Isolation Pilot Plant; continue preparation of facilities, install equipment, and start treatment of sodium contaminated remote-handled transuranic and mixed low-level waste; and receive, characterize,	• Provide for site-wide environmental compliance. • Maintain and operate the Radioactive Waste Management Complex infrastructure including utility systems, project management, engineering, training, environmental safety and health and quality assurance. This project also includes monitoring of air, water, soils, and biota surveillance. • Meet requirements of the Idaho Settlement Agreement and Site Treatment Plan by repackaging and characterizing remote-handled transuranic waste at the Idaho Nuclear Technology and Engineering Center and contact-handled transuranic waste at the Advanced Mixed Waste Treatment Project in preparation for shipment to the Waste Isolation Pilot Plant. • Prepare approximately 4,500 cubic meters of contact-handled transuranic waste for shipment to the Waste Isolation Pilot Plant. • Perform treatment of sodium contaminated	• The decrease reflects anticipated completion of processing EM owned remote-handled wastes in mid FY 2015.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
certify, transuranic waste from other DOE sites in preparation for shipment to the Waste Isolation Pilot Plant. • Prepare approximately 4,500 cubic meters of contact-handled transuranic waste for shipment to the Waste Isolation Pilot Plant. • Continue processing of sludge drums in ARP-V. • Procure additional Ten Drum Overpacks, which also support increased shipments to the Waste Isolation Pilot Plant and reduce waste inventory backlog. • Dispose mixed low-level and low-level waste off-site. • Retrofit an existing facility to increase the capability for treating sodium bonded transuranic waste and mixed low-level waste as required by the Site Treatment Plan; start treatment of sodium contaminated wastes. • Repackage and characterize remote-handled transuranic waste for shipment to the Waste Isolation Pilot Plant, including increased support for waste certification to support targeted increase in shipments to the Waste Isolation Pilot Plant.	remote-handled transuranic waste. • Retrieve, repackage, and characterize contact-handled transuranic waste from other DOE sites and ship to the Waste Isolation Pilot Plant. • Treat and dispose mixed low-level and low-level waste offsite. • Complete sludge drum processing.	

Radioactive Liquid Tank Waste Stabilization and Disposition-2012 (PBS: ID-0014B)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The overall objectives of this project are to treat and dispose of the sodium-bearing tank waste; close the tank farm tanks, associated piping and infrastructure; and operate and maintain Idaho Nuclear Technology and Engineering Center. This project also includes activities to support the preparation of stored high-level waste calcine for final disposition. Completion of this project will close the last four high-level liquid waste tanks and cap the tank farm area leading to the reduction of the most significant environmental, safety and health threat.

Radioactive Liquid Tank Waste Stabilization and Disposition-2012 (PBS: ID-0014B)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
106,600	**84,650**	**-$21,950**
• Initiate Sodium Bearing waste treatment operations to treat 900,000 gallons of sodium bearing waste. • Maintain tank farm and systems necessary for safe delivery of sodium bearing waste until treatment is complete. • Continue providing reliable Idaho Nuclear Technology and Engineering Center utilities, maintenance and operations for the process waste system, support laboratories, and existing process facilities.	• Complete sodium bearing waste treatment operations. • Develop and implement the regulatory path forward for disposal of the sodium bearing waste treatment product. • Maintain tank farm and systems necessary for safe delivery of sodium bearing waste until treatment is complete. • Continue providing acceptable Idaho Nuclear Technology and Engineering Center utilities, maintenance and operations for the process waste system, support laboratories, and existing process facilities. • Remove and process tank sludges and initiate tank heel removal, flushing and cleaning, grouting and activities supporting Resource Conservation and Recovery Act closure of the final four high-level waste tanks.	• The decrease reflects anticipated completion of sodium bearing waste operations in early FY 2015.

Soil and Water Remediation (PBS: ID-0030B)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The objective of this project is remediation of contaminated soil and groundwater and closure of legacy Comprehensive Environmental Response, Compensation, and Liability Act sites at the Idaho National Laboratory. Voluntary Consent Order scope for closure of tanks and facilities also contributes to reduction of risk to the Snake River Plain Aquifer. Completion of this project will contribute to reducing the footprint and the completion of the Idaho Cleanup Project.

Soil and Water Remediation-2012 (PBS: ID-0030B)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
56,270	**75,443**	**+$19,173**
• Provide risk reduction through implementation of the Comprehensive Environmental Response, Compensation, and Liability Act Record of Decision for buried transuranic waste at the Waste Area Group 7 (Radioactive Waste Management Complex) subsurface disposal area. • Ship retrieved Waste Area Group 7 buried targeted waste to the Waste Isolation Pilot Plant. • Maintain the remedies at Waste Area Group 2 (Test Reactor Area); Waste Area Group 4 (Central Facilities Area); Waste Area Group 5 (Power Burst Facility/Auxiliary Reactor Area); and Waste Area Group 6 (Experimental Breeder Reactor/BORAX). • Implement the Comprehensive Environmental Response, Compensation, and Liability Act Record of Decision for the Waste Area Group 3 (Operable Unit 3-14) (Idaho Nuclear Technology and Engineering Center) tank farm soils and groundwater protection. • Implement the Comprehensive Environmental Response, Compensation, and Liability Act Record	• Provide risk reduction through implementation of the Comprehensive Environmental Response, Compensation, and Liability Act Record of Decision for buried transuranic waste at the Waste Area Group 7 (Radioactive Waste Management Complex) subsurface disposal area. • Ship retrieved Waste Area Group 7 buried targeted waste to the Waste Isolation Pilot Plant. • Maintain the remedies at Waste Area Group 2 (Test Reactor Area); Waste Area Group 4 (Central Facilities Area); Waste Area Group 5 (Power Burst Facility/Auxiliary Reactor Area); and Waste Area Group 6 (Experimental Breeder Reactor/BORAX). • Implement the Comprehensive Environmental Response, Compensation, and Liability Act Record of Decision for the Waste Area Group 3 (Operable Unit 3-14) (Idaho Nuclear Technology and Engineering Center) tank farm soils and groundwater. • Implement the Comprehensive Environmental Response, Compensation, and Liability Act Record	• The increase reflects an increased rate of buried waste exhumation activities, consistent with the approved project plans.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
of Decision for Waste Area Group 10 (Operable Unit 10-08) site wide ground water, miscellaneous sites, and future sites. • Implement the Comprehensive Environmental Response, Compensation, and Liability Act Record of Decision for Waste Area Group 10 (Operable Unit 10-04) unexploded ordinance. • Maintain Idaho Comprehensive Environmental Response, Compensation, and Liability Act Disposal Facility operations. • Maintain Radioactive Waste Management Complex infrastructure. • Continue exhumation of targeted waste in the subsurface disposal area.	of Decision for Waste Area Group 1 (Operable Unit 1-07B) TAN Groundwater. • Implement the Comprehensive Environmental Response, Compensation, and Liability Act Record of Decision for Waste Area Group 10 (Operable Unit 10-08) site wide ground water, miscellaneous sites, and future sites. • Implement the Comprehensive Environmental Response, Compensation, and Liability Act Record of Decision for Waste Area Group 10 (Operable unit 10-04) unexploded ordinance. • Maintain Radioactive Waste Management Complex infrastructure. • Maintain Idaho Comprehensive Environmental Response, Compensation, and Liability Act Disposal Facility operations. • Provide for site-wide environmental compliance.	

Idaho Community and Regulatory Support (PBS: ID-0100)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This project scope includes work in three major areas for environmental regulatory oversight and stakeholder interactions and support:
1) State of Idaho Department of Environmental Quality (Resource Conservation and Recovery Act compliance, and Air Quality Permitting Fees-Federal Facility Agreement/Consent Order) and Environmental Protection Agency support.
2) The United States Geological Survey performs groundwater monitoring and subsurface investigation on the regional (Eastern Snake River Plain Aquifer) and sub-regional (site-wide) scale for the Idaho Site.
3) The Idaho Site Citizens Advisory Board is chartered by the DOE as an EM Site-Specific Advisory Board.

Idaho Community and Regulatory Support (PBS: ID-0100)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
3,700	**2,910**	**-$790**
• Continue groundwater monitoring and subsurface investigation with analysis of contaminants and transport mechanisms affecting the Snake River Aquifer, both on-site and off-site. • Payment of fees for the Title V Air Permit and technical assistance for air quality compliance. • Provide grant to the State of Idaho Department of Environmental Quality. • Support groundwater monitoring activities by the U.S. Geological Survey.	• Continue groundwater monitoring and subsurface investigation with analysis of contaminants and transport mechanisms affecting the Snake River Aquifer, both on-site and off-site. • Payment of fees for the Title V Air Permit and technical assistance for air quality compliance. • Provide grant to the State of Idaho Department of Environmental Quality.	• The decrease reflects reduced funding requirements in the area of ground water monitoring activities.

SNF Stabilization and Disposition-2012 (Non-Defense) (PBS: ID-0012B-N)

Overview

This PBS can be found within the Non-Defense Environmental Cleanup appropriation.

The purpose of this project is to maintain and operate the Nuclear Regulatory Commission licensed Independent Spent (Used) Fuel Storage Installation in accordance with license basis documents. This includes the management of approximately 15 metric tons of spent (used) nuclear fuel presently stored at Fort St. Vrain in Colorado and approximately 82 metric tons of spent (used) nuclear fuel presently stored on-site in the Three Mile Island Independent Spent (Used) Nuclear Fuel Storage Installation and payment of licensing fees for the Idaho Spent (Used) Fuel Facility that is designed and licensed, but not yet built.

SNF Stabilization and Disposition-2012 (Non-Defense) (PBS: ID-0012B-N)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
4,993	**4,900**	**-$93**
• Provide payments to the Nuclear Regulatory Commission to implement license and for licensing-related activities related to both Fort St. Vrain and Three Mile Island-2 Spent (Used) Nuclear Fuel. • Provide security for Fort St. Vrain Spent (Used) Nuclear Fuel. • Continue to monitor Three Mile Island-2 Spent (Used) Nuclear Fuel. • Implement Nuclear Regulatory Commission license renewal for Three Mile Island-2.	• Provide payments to the Nuclear Regulatory Commission to implement license and for licensing-related activities related to Fort St. Vrain, Three Mile Island-2 Spent (Used) Nuclear Fuel, and Idaho Spent Fuel Facility. • Provide security for Fort St. Vrain Spent (Used) Nuclear Fuel. • Continue to operate and monitor Fort St. Vrain and Three Mile Island-2 Spent (Used) Nuclear Fuel. • Implement Nuclear Regulatory Commission license renewal for Three Mile Island-2.	• The decrease reflects efficiencies realized in spent nuclear fuel management activities.

Oak Ridge

Overview

The Oak Ridge National Priority List Site supports the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and Cold War activities.

The EM Program Portfolio in Oak Ridge is comprised of three geographic locations, located within the boundary of the City of Oak Ridge. One-half million people live within a thirty mile radius of the Oak Ridge Reservation. These three portfolio programs are surrounded and delineated by surface waters and/or groundwater that transport contaminants off-site from past federal operations:

- The East Tennessee Technology Park site occupies approximately 5,000 acres adjacent to the Clinch River. Approximately 2,200 of these acres are to be addressed under the Comprehensive Environmental Response, Compensation and Liability Act. The remainder of the area has been shown to be non-contaminated and no further Comprehensive Environmental Response, Compensation and Liability Act investigations will be necessary. The site is a former gaseous diffusion plant that was shut down in 1984. It is currently being prepared to be transitioned to a private sector industrial park.
- The Oak Ridge National Laboratory covers 3,300 acres, and currently conducts multi-program and energy research activities. Historically, the Oak Ridge National Laboratory supported both the defense production operations and civilian energy research efforts. Manhattan Project and Cold War era legacies co-exist with modernized laboratory facilities.
- The Y-12 National Security Complex site is 811 acres that was once a uranium processing facility, and now dismantles nuclear weapons components and serves as one of the nation's storehouses for special nuclear materials. Manhattan Project and Cold War era legacies co-exist with revitalized national security facilities at the Y-12 National Security Complex site. The Environmental Management Waste Management Facility (a Comprehensive Environmental Response, Compensation and Liability Act disposal facility supporting cleanup of all three sites) is also located at the Y-12 National Security Complex.

The Oak Ridge EM Integrated Program Plan reflects the need and priority for remediating the cold war nuclear weapons production legacy to protect health and the environment, and meet regulatory commitments.

A key element to the overall success of the EM mission at Oak Ridge is the presence of regulatory drivers that are in place to continue and/or complete the work necessary to meet milestones contained within the Oak Ridge Federal Facility Agreement and Site Treatment Plan with the U.S. Environmental Protection Agency and/or the State of Tennessee.

Direct maintenance and repair at the East Tennessee Technology Park is estimated to be $8,090,000 in FY 2015.

Regulatory Framework

Cleanup of the Oak Ridge Reservation is primarily governed by three regulatory agreements/compliance orders:

- The first, the Federal Facility Agreement for the Oak Ridge Reservation, was signed by DOE, the United States Environmental Protection Agency, and the Tennessee Department of Environment and Conservation and implemented on January 1, 1992, to establish a procedure framework and schedule for developing, implementing, and monitoring appropriate site response actions under the Comprehensive Environmental Response, Compensation, and Liability Act.
- The second, the Oak Ridge Reservation Compliance Order, was signed on September 26, 1995, by DOE and the Tennessee Department of Environment and Conservation, to enforce treatment of mixed low-level wastes and transuranic wastes under the Resource Conservation and Recovery Act. This order establishes milestones in the Site Treatment Plan to complete treatment of all Oak Ridge mixed low-level wastes with a known disposition path by 2012 (accomplished in 2011). This order also establishes milestones for processing and shipment of transuranic wastes.
- The third, the Oak Ridge Reservation Polychlorinated Biphenyl Federal Facilities Compliance Agreement, was signed by DOE and the Environmental Protection Agency on October 28, 1996, to establish a framework for treatment of polychlorinated biphenyl-contaminated wastes under the Toxic Substances Control Act. This agreement requires substantive annual progress in disposition of polychlorinated biphenyl contaminated waste at Oak Ridge.

Contractual Framework

Program planning and management at Oak Ridge is conducted through the issuance and execution of contracts to large and small businesses. Oak Ridge develops near- and long- term planning approaches in order to develop contract strategies and program/project plans at a more detailed level. Selected contractors then execute these plans to complete cleanup on schedule. The three major contracts performing environmental management cleanup at Oak Ridge include:

- URS'CH2M Hill LLC contract for decontamination and decommissioning of surplus buildings and legacy soil and groundwater remediation at the East Tennessee Technology Park (former uranium-enrichment gaseous diffusion plant), as well as the surveillance and maintenance of excess facilities, operations of waste treatment facilities and water quality activities at Oak Ridge National Laboratory and Y-12, covering the period 2011 - 2016, with an option to 2020.

- Wastren Advantage, Inc., a small business contract, for treatment, processing and disposition packaging of transuranic waste at the Transuranic Waste Processing Center. The cost plus award fee term contract has a base period of performance of January 17, 2010-January 16, 2013. The option under the contract for performance from January 17, 2013-January 16, 2015 has been exercised.

- Isotek Systems LLC contract to complete the disposition of Uranium-233 material. It is a cost plus fixed fee term contract for performance from 9 October 2003 – 30 June 2007. The Option periods through 31 August 2014 have been exercised. There are two remaining options for processing and activation that run concurrently through 30 August 2017. They have not yet been exercised.

Highlights of the FY 2015 Budget Request

The following represents the most significant near-term projects in the Oak Ridge Environmental Management Program FY 2015 Congressional Budget Request:

- Complete preliminary design for the Mercury Treatment Facility at Outfall 200.
- Continue study and development of mercury characterization techniques and remediation technologies.
- Continue design and prepare for construction of the Sludge Build-out capital asset project at the Transuranic Waste Processing Center.
- Continue K-27 Building deactivation activities at the East Tennessee Technology Park.

The FY 2015 request includes funding for two line item construction projects -- Sludge Processing Facility Buildouts ($13,100,000) and Outfall 200 Mercury Treatment Facility ($10,400,000). The mission of the sludge project is to construct an annex to the existing Transuranic Waste Processing Center to enable processing of 2,000 cubic meters of sludge and supernate stored in underground storage tanks adjacent to the facility. The $13,100,000 requested for this project includes $4,200,000 for 15-D-405 for design activities and $8,900,000for other project costs funded within PBS OR-0013B, Solid Waste Stabilization and Disposition.

The mission of the Mercury Treatment Facility is to construct a Mercury Treatment Facility at Outfall 200 to remove mercury from base flow and storm water sewer discharges. The $10,400,000 requested for this project includes $9,400,000for 14-D-403 for design activities and $1,000,000for other project costs funded within PBS OR-0041, Nuclear Facility D&D-Y-12.

FY 2015 Key Milestones/Outlook

- (Dec 2014) ORR - Office of Environmental Management Waste Facility - Record of Decision
- (Sep 2015) Complete preliminary design for the new Mercury Treatment Facility at Outfall 200

Strategic Management

The Oak Ridge cleanup strategies consist of near-term goals to pursue: (1) dispositioning the uranium-233 inventory currently stored at the Oak Ridge National Laboratory; (2) continuing to process transuranic debris waste and preparing for processing of transuranic sludge; (3) designing and constructing a water treatment system at Y-12 to reduce mercury flux and prepare for future demolition and remedial actions; and (4) completing demolition of Buildings K-25 and K-27 at the East Tennessee Technology Park.

A key component to cleanup success in Oak Ridge is continued partnering with regulatory agencies and stakeholders. The Oak Ridge Federal Facility Agreement and the Site Treatment Plan were enacted among DOE, the Tennessee Department of Environment and Conservation and/or U.S. Environmental Protection Agency to promote cooperation. Milestones for completion of cleanup efforts are established under the Federal Facility Agreement and provide a mechanism for ensuring that Oak Ridge cleanup priorities are developed in collaboration with all stakeholders to reduce risk and protect public health and the environment.

The FY 2015 Request is proposing a new control point within the Uranium Enrichment Decontamination and Decommissioning Fund Appropriation in order to better manage requirements for Pension and Community and Regulatory activities.

The funding table below provides a comparable display of the impacted activities and a comparable display will be continued throughout this budget chapter to aid in budget review.

Oak Ridge

Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
Oak Ridge						
Building 3019						
OR-0011Z / Downblend of U-233 in Building 3019	34,025	0	0	0	0	0
OR Cleanup and Disposition						
OR-0013B / Solid Waste Stabilization and Disposition-2012	75,804	83,220	0	83,220	75,337	-7,883
OR Nuclear Facility D&D						
OR-0041 / Nuclear Facility D&D-Y-12	27,446	39,837	0	39,837	44,066	+4,229
OR-0042 / Nuclear Facility D&D-Oak Ridge National Laboratory	40,198	38,387	0	38,387	38,387	0
OR-0043 / Nuclear Facility D&D-East Tennessee Technology Park (Defense)	102	100	0	100	102	+2
Subtotal, OR Nuclear Facility D&D	**67,746**	**78,324**	**0**	**78,324**	**82,555**	**+4,231**
OR Reservation Community and Regulatory Support						
OR-0100 / Oak Ridge Reservation Community & Regulatory Support (Defense)	5,894	4,365	0	4,365	4,365	0
OR Technology Development and Deployment						
OR-TD-0100 / Technology Development Activities - Oak Ridge	0	4,091	0	4,091	3,000	-1,091
U233 Disposition Program						
OR-0011D / U233 Disposition Program	0	45,000	0	45,000	41,626	-3,374
Total, Oak Ridge	**183,469**	**215,000**	**0**	**215,000**	**206,883**	**-8,117**

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Safeguards and Security						
OR-0020 / Safeguards and Security	18,845	18,800	0	18,800	16,382	-2,418
Total, Defense Environmental Cleanup	**202,314**	**233,800**	**0**	**233,800**	**223,265**	**-10,535**
Non-Defense Environmental Cleanup						
Small Sites						
Oak Ridge						
OR-0104 / Community and Regulatory (Non-Defense)	0	0	0	0	2,119	+2,119
Uranium Enrichment Decontamination and Decommissioning Fund						
Oak Ridge						
Oak Ridge						
OR-0040 / Nuclear Facility D&D-East Tennessee Technology Park (D&D Fund)	177,366	176,815	0	176,815	137,898	-38,917
Pension and Community and Regulatory Support						
Oak Ridge						
OR-0102 / East Tennessee Technology Park Contract/Post-Closure Liabilities/Administration	23,000	18,926	0	18,926	21,693	+2,767
Total, Uranium Enrichment Decontamination and Decommissioning Fund	**200,366**	**195,741**	**0**	**195,741**	**159,591**	**-36,150**
Total, Oak Ridge	**402,680**	**429,541**	**0**	**429,541**	**384,975**	**-44,566**

Oak Ridge
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup	
Oak Ridge	
OR Cleanup and Disposition	
OR-0013B / Solid Waste Stabilization and Disposition-2012	
• The decrease reflects completion of physical preparation of the remaining contact-handled transuranic debris, enabling the final characterization of the waste for disposal.	-7,883
OR Nuclear Facility D&D	
OR-0041 / Nuclear Facility D&D-Y-12	
• Increase reflects additional funding for pre-construction activities for the Outfall 200 Water Treatment Facility and the new Environmental Management Disposal Facility.	+4,229
OR-0043 / Nuclear Facility D&D-East Tennessee Technology Park (Defense)	
▪ No significant change.	+2
OR Technology Development and Deployment	
OR-TD-0100 / Technology Development Activities - Oak Ridge	
• Decrease reflects resources necessary to sustain momentum for technology development activities related to mercury characterization techniques and remediation technologies.	-1,091
U233 Disposition Program	
OR-0011D / U233 Disposition Program	
• Decrease reflects ongoing discussions regarding Consolidated Edison Uranium Solidification Project material direct disposal.	-3,374
Safeguards and Security	
OR-0020 / Safeguards and Security	
• The reduction applies risk-management prioritization to site security services to optimize efficiencies in site access operations (barricades and badge issuance), personnel security clearances, cyber security maintenance and testing, nuclear materials safeguards monitoring, and protective force staffing and training.	-2,418
Non-Defense Environmental Cleanup	
Small Sites	
OR-0104 / Community and Regulatory (Non-Defense)	
• Funds activities associated with preserving the historical significance of the former K-25 site.	+2,119

	FY 2015 vs FY 2014 Enacted
Uranium Enrichment Decontamination and Decommissioning Fund	
OR-0040 / Nuclear Facility D&D-East Tennessee Technology Park (D&D Fund)	
• Decrease reflects completion of K-25 Building high risk equipment removal and demolition activities.	-38,917
OR-0102 / East Tennessee Technology Park Contract/Post-Closure Liabilities/Administration	
• Increase reflects additional requirements for contractor post-retirement life, medical benefits, and pensions.	+2,767
Total, Oak Ridge	**-44,566**

Solid Waste Stabilization and Disposition (PBS: OR-0013B)

Overview

This PBS is within the Defense Environmental Cleanup appropriation.

This PBS funds Resource Conservation and Recovery Act storage, closure, treatment and disposal of low-level, mixed low-level, hazardous, industrial, and sanitary waste from the East Tennessee Technology Park, Oak Ridge National Laboratory, and Y-12 sites. It also includes the closure and decommission of the Central Neutralization Facility.

In addition, this PBS funds the characterization and processing for the disposition of the Oak Ridge Reservation transuranic waste. Contact-handled transuranic debris processing was initiated in FY 2006 and processing of remote-handled transuranic debris began in FY 2008 at the Transuranic Waste Processing Center. Processed waste is transferred to the Waste Isolation Pilot Plant or the Nevada National Security Site for disposal. In FY 2015, processing of contact-handled and remote-handled transuranic debris will continue, supporting certification of waste for disposal at the Waste Isolation Pilot Plant or the Nevada National Security Site. In addition, planning and design of the systems necessary to support processing of transuranic sludge will continue in order to support a construction schedule which will allow for sludge processing to begin in FY 2019.

This PBS includes $13,100,000 in FY 2015 line item funding for the Sludge Processing Facility Buildout Project (15-D-405) to expand the existing Transuranic Waste Processing Center to enable processing of 2,000 cubic meters of sludge and supernate stored in underground storage tanks adjacent to the facility. The project will construct an annex to the existing facility to house sludge stabilization and solidification process equipment. The breakout of the line item funding is as follows, as described in the project data sheet: $4,200,000 for Project Engineering and Design, and $8,900,000 for other project cost for FY 2015. Project Engineering and Design funds were appropriated in FY 2010 for this purpose. The project is being conducted under the National Environmental Policy Act of 1969.

Solid Waste Stabilization and Disposition-2012 (PBS: OR-0013B)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
83,220	**75,337**	**-$7,883**
• Continue to manage and store mixed low-level and transuranic waste in compliance with regulations. • Maintain regulatory safety basis documents and permits and operate waste storage facilities at the East Tennessee Technology Park and the Oak Ridge National Laboratory.	• Continue to manage and store mixed low-level and transuranic waste in compliance with regulations. • Maintain regulatory safety basis documents and permits and operate waste storage facilities at the East Tennessee Technology Park and the Oak Ridge National Laboratory.	• The decrease reflects completion of physical preparation of the remaining contact-handled transuranic debris, enabling the final characterization of the waste for disposal.

Solid Waste Stabilization and Disposition-2012 (PBS: OR-0013B)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
• Initiate planning for retrieval, treatment, packaging and shipment for disposal of Solid Waste Storage Area 5 Trench 13 waste. • Continue transfers of transuranic waste to the Transuranic Waste Processing Facility located at the Oak Ridge National Laboratory. • Continue processing and disposal of contact-handled and remote-handled transuranic waste to meet regulatory milestones. • Treat and ship mixed low-level waste to off-site disposal. • Continue design, conceptual planning, and prepare for construction of the Sludge Build-out project at the Transuranic Waste Processing Center. • Complete and submit plan to the Tennessee Department of Environment and Conservation for disposition of Trench 13 transuranic waste (includes submitting an Engineering Evaluation and a Draft and final Plan for addressing the material). • Obtain Critical Decision 1 reauthorization and conduct procurement activities for Sludge Buildout capital asset project design and technology maturation.	• Continue transfers of transuranic waste to the Transuranic Waste Processing Facility located at the Oak Ridge National Laboratory. • Award new treatment, processing, and disposition contract and continue processing and disposal of contact-handled and remote-handled transuranic waste to meet regulatory milestones. Treat and ship mixed low-level waste to off-site disposal. • Continue design and prepare for construction of the Sludge Build out at the Transuranic Waste Processing Center (15-D-405).	

Nuclear Facility D&D-Y-12 (PBS: OR-0041)

Overview

This PBS is within the Defense Environmental Cleanup appropriation.

This PBS funds the cleanup at the Y-12 National Security Complex, which is a contributor of mercury, radionuclides, volatile organic compounds, and polychlorinated biphenyls contamination to the Upper East Fork of Poplar Creek that flows through the City of Oak Ridge. The near-term focus of work at Y-12 includes: designing and constructing a water treatment system to reduce mercury flux; preparing for future demolition and remedial actions of mercury processing buildings; surveillance and maintenance of current surplus facilities awaiting future decontamination and decommissioning; and groundwater and surface water monitoring to assess the effectiveness of completed cleanup actions that support future remediation decisions identified in the Comprehensive Environmental Response, Compensation, and Liability Act Records of Decision.

Funds also support the cost-effective cleanup of the Oak Ridge Reservation through the operation of the Environmental Management Waste Management Facility (maximum capacity of 2,200,000 cubic yards) and the Oak Ridge Reservation Landfills for disposition of waste from all on-site DOE program offices. A total of $18,000,000 in payments to a State of Tennessee trust fund will provide funding for the perpetual care of the Environmental Management Waste Management Facility after final closure. A follow-on Environmental Management Waste Disposal Facility will be needed once the capacity of the existing on-site disposal facility is reached. Planning and preparation activities are beginning now to ensure a follow-on facility is in place when the existing facility is full.

This PBS also includes the preliminary design for one capital project: the Outfall 200 Mercury Treatment Facility. This PBS also provides initial planning funding for the new Environmental Management Disposal Facility. This facility is a proposed on-site Comprehensive Environmental Response, Compensation and Liability Act disposal cell that is being planned to replace the existing Comprehensive Environmental Response, Compensation, and Liability Act cell (the Environmental Management Waste Management Facility), which is projected to run out of capacity in FY 2020. Like the Environmental Management Waste Management Facility, this new Comprehensive Environmental Response, Compensation, and Liability Act disposal cell will continue to provide on-site waste disposal capacity for demolition debris and remediation waste from Oak Ridge Reservation's clean-up projects once the existing disposal facility has reached capacity. The Outfall 200 Mercury Treatment Facility will provide treatment of storm sewer water discharges through the Outfall 200 Mercury Facility for the removal of mercury. These two facilities are actions required under the Comprehensive Environmental Response, Compensation and Liability Act of 1980.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
39,837	**44,066**	**+$4,229**
• Comply with legal agreements between the DOE, United States Environmental Protection Agency, Region 4, and the State of Tennessee; environmental laws and regulations; and DOE Order requirements for Environmental Management Waste Management Facility operations; groundwater and surface water monitoring; surveillance and maintenance of waste sites and inactive facilities; and preparation of an annual remediation effectiveness report. • Operate Environmental Management Waste Management Facility and other Oak Ridge Reservation Landfills to receive wastes from demolition and remedial activities in accordance with DOE Order requirements for groundwater and surface water monitoring, including Environmental Management Waste Management Facility waste acceptance criteria attainment activities. • Conduct interim capping of the Comprehensive Environmental Response, Compensation, and Liability Act disposal facility (e.g., the Environmental Management Waste Management Facility at the Y-12 National Security Complex and conduct planning for a follow-on Comprehensive Environmental Response, Compensation, and Liability Act disposal facility at Y-12 National Security Complex. • Initiate monitoring of off-site groundwater in accordance with regulatory agreements, by	• Comply with legal agreements between the DOE, United States Environmental Protection Agency, Region 4, and the State of Tennessee; environmental laws and regulations; and DOE Order requirements for Environmental Management Waste Management Facility operations; groundwater and surface water monitoring; surveillance and maintenance of waste sites and inactive facilities; and preparation of an annual remediation effectiveness report. • Operate Environmental Management Waste Management Facility and other Oak Ridge Reservation Landfills to receive wastes from demolition and remedial activities in accordance with DOE Order requirements for groundwater and surface water monitoring, including Environmental Management Waste Management Facility waste acceptance criteria attainment activities. • Complete preliminary design for the Outfall 200 Water Treatment Facility. • Continue monitoring of off-site groundwater in accordance with regulatory agreements by sampling wells and surface water. • Prepare Comprehensive Environmental Response, Compensation, and Liability Act Record of Decision and initiate planning activities for a new, on-site CERCLA disposal cell.	• Increase reflects additional funding for pre-construction activities for the Outfall 200 Water Treatment Facility and the new Environmental Management Disposal Facility.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
sampling wells and surface water. • Conduct Pre-Critical Decision 1 activities for the Outfall 200 Water Treatment Facility including conceptual design, studies, and site characterization; and prepare the CD-1 package for approval. • Prepare Comprehensive Environmental Response, Compensation, and Liability Act documentation and perform initial site characterization for the Environmental Management Disposition Facility.		

Nuclear Facility D&D-Oak Ridge National Laboratory (PBS: OR-0042)

Overview

This PBS is within the Defense Environmental Cleanup appropriation.

This PBS funds the cleanup of the Oak Ridge National Laboratory which includes operations and surveillance and maintenance of liquid, gaseous, and process waste operations systems in support of the Office of Science and Environmental Management missions. This includes more than 200 inactive facilities (including several inactive research reactors and isotope production facilities), three contaminated groundwater plumes, contaminated surface water, and numerous areas of soil and sediment contamination awaiting future decontamination, decommissioning, and environmental remediation actions. The activities performed under this PBS will ensure worker safety and mitigate the potential for contaminant release and continue environmental monitoring of surface and groundwater systems to support future remediation decisions identified in the Comprehensive Environmental Response and Liability Act Records of Decision.

Nuclear Facility D&D-Oak Ridge National Laboratory (PBS: OR-0042)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
38,387	**38,387**	**0**
• Monitor groundwater and surface water in accordance with the Melton Valley and Bethel Valley Comprehensive Environmental Response Compensation and Liability Act Records of Decision. • Maintain liquid, gaseous and process waste operations systems in support of the Office of Science and EM missions. • Perform surveillance and maintenance required by the Melton Valley Comprehensive Environmental Response Compensation and Liability Act Record of Decision and for inactive facilities and reactors at the Oak Ridge National Laboratory. • Complete and submit plan to the Tennessee Department of Environment and Conservation for disposition of Trench 13 transuranic waste.	• Monitor groundwater and surface water in accordance with the Melton Valley and Bethel Valley Comprehensive Environmental Response Compensation and Liability Act Records of Decision. • Maintain liquid, gaseous and process waste operations systems in support of the Office of Science and Environmental Management missions. • Perform surveillance and maintenance required by the Melton Valley Comprehensive Environmental Response Compensation and Liability Act Record of Decision and for inactive facilities and reactors at the Oak Ridge National Laboratory.	• No change.

Nuclear Facility D&D-East Tennessee Technology Park (Defense) (PBS: OR-0043)

Overview

This PBS is within the Defense Environmental Cleanup appropriation.

This PBS, in combination with PBS OR-0040, Nuclear Facility Decontamination and Decommissioning East Tennessee Technology Park (Uranium Enrichment Decontamination and Decommissioning Fund) will accomplish the closure of East Tennessee Technology Park which will result in a significant reduction in the Department's liability. This PBS funds decontamination, decommissioning, and demolition for the East Tennessee Technology Park facilities that were not involved in enriching uranium for commercial clients (per the Energy Policy Act of 1992).

This PBS also provides for the surveillance and maintenance required to maintain the Centrifuge facilities in accordance with safety basis documents while they await decontamination and decommissioning.

Nuclear Facility D&D-East Tennessee Technology Park (Defense) (PBS: OR-0043)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
100	**102**	**+$2**
• Perform surveillance and maintenance of the Centrifuge Facilities complex, to maintain it in a safe and secure condition in accordance with DOE orders.	• Perform surveillance and maintenance of the Centrifuge Facilities complex, to maintain it in a safe and secure condition in accordance with DOE Orders.	▪ No significant change.

Oak Ridge Reservation Community & Regulatory Support (Defense) (PBS: OR-0100)

Overview

This PBS is within the Defense Environmental Cleanup appropriation.

This PBS funds two Tennessee non-regulatory Agreement-In-Principle grants, the Tennessee regulatory Federal Facility Agreement grant and the activities of the Oak Ridge Site Specific Advisory Board. The first Agreement-In-Principle grant supports the Tennessee Department of Environment and Conservation's independent oversight and monitoring of DOE activities taking place both on-site and off-site associated with the Oak Ridge DOE programs. The second Agreement-In-Principle grant supports the Tennessee Emergency Management Agency in emergency response planning initiatives, including cooperative planning, conducting joint training exercises and developing public information regarding emergency preparedness activities. The Federal Facility Agreement regulatory grant provides funding for regulatory requirements of cleanup activities under the interagency Federal Facility Agreement under the Comprehensive Environmental Response, Compensation, and Liability Act. The support for the Site Specific Advisory Board is chartered under the Federal Advisory Committee Act.

Oak Ridge Reservation Community & Regulatory Support (Defense) (PBS: OR-0100)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
4,365	**4,365**	**0**
• Continue support to the State of Tennessee for conducting annual oversight, monitoring, and reporting. This includes: annual reports to the public; independent monitoring program of all environmental media; off reservation monitoring program of wells owned by private citizens adjacent to DOE land; establishment of background levels; DOE facility surveillance walkthroughs; Federal Facility Agreement support activities; and emergency management exercises. • Continue activities by the Site Specific Advisory Board sponsored by DOE-EM to assist in public participation activities and outreach assistance.	• Continue support to the State of Tennessee for conducting annual oversight, monitoring, and reporting. This includes: annual reports to the public; independent monitoring program of all environmental media; off reservation monitoring program of wells owned by private citizens adjacent to DOE land; establishment of background levels; DOE facility surveillance walkthroughs; Federal Facility Agreement support activities; and emergency management exercises. • Continue activities by the Site Specific Advisory Board sponsored by DOE-EM to assist in public participation activities and outreach assistance.	• No change.

U233 Disposition Program (PBS: OR-0011D)

Overview

This PBS is within the Defense Environmental Cleanup appropriation.

Oak Ridge maintains the DOE inventory of uranium-233 which is currently stored in Building 3019 at the Oak Ridge National Laboratory. Uranium-233 is a special nuclear material which requires strict safeguards and security controls to protect against access. The Defense Nuclear Facilities Safety Board issued Recommendation 97-1, *Safe Storage of Uranium-233,* which identified concerns related to long-term storage of the inventory in Building 3019. Disposing of the uranium-233 inventory will reduce the substantial annual costs associated with safeguards and security requirements, which are funded by the Office of Science. Further, the risk of a nuclear criticality event will be eliminated, as well as, the need for future facility upgrades to Building 3019 to ensure safe storage of the inventory.

The current strategy consists of the direct disposition of Consolidated Edison Uranium Solidification Project material which represents about half of the containers in the inventory and down-blending of the remainder of the inventory in Building 2026. All of the material will be dispositioned as low-level waste at an off-site disposal facility. In Fiscal Year 2015, Oak Ridge will continue off-site disposal of the Consolidated Edison Uranium Solidification Project material.

U233 Disposition Program (PBS: OR-0011D)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
45,000	**41,626**	**-$3,374**
• Continue required surveillance and maintenance and other activities at Building 3019 to maintain a safe and secure condition. • Initiate and continue shipments of Consolidated Edison Uranium Solidification Project material from the uranium-233 inventory to offsite disposal. • Continue planning and accelerate activities to prepare for the processing phase of the project, including physical preparations of Building 2026, where the downblending/processing will occur.	• Continue required surveillance and maintenance and other activities at Building 3019 to maintain a safe and secure condition. • Continue Uranium-233 disposition activities in support of Consolidated Edison Uranium Solidification Project material direct disposition from Building 3019 inventory to offsite disposal. Perform activities, such as modifying hot cells and readiness reviews, in support of preparing Building 2026 for dissolution and down-blending of material from Building 3019 that cannot be directly dispositioned.	• Decrease reflects ongoing discussions regarding Consolidated Edison Uranium Solidification Project material direct disposal.

Safeguards and Security (PBS: OR-0020)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The Oak Ridge Environmental Management Safeguards and Security Program provides stable, reliable security services to support the site's cleanup program. These funds also implement Homeland Security Presidential Directive-12 identification credentials for all employees to sustain a reliable, cleared workforce.

Safeguards and Security (PBS: OR-0020)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
18,800	**16,382**	**-$2,418**
• Maintain DOE required security for the following major facilities: K-25, K-27, K-1037, Centrifuge Facilities, Classified Burial Grounds, Environmental Management Waste Management Facility, and Transuranic Waste Processing Facility. • Support increased pension liability.	• Provide safeguard and security services for the following major facilities: K-27, K-1037, Centrifuge Facilities, Classified Burial Grounds, Environmental Management Waste Management Facility, Transuranic Waste Processing Facility, and the overall East Tennessee Technology Park will be applied in the areas of: protection program management, emergency response, Physical Security, information protection, Protective Force, Personnel Security, Cyber Security and Nuclear Material Control and Accountability. • Site security services will be applied using a graded, risk-based management approach supporting site cleanup mission priorities and protecting government equipment, materials, information, and the site workforce.	• The reduction applies risk-management prioritization to site security services to optimize efficiencies in site access operations (barricades and badge issuance), personnel security clearances, cyber security maintenance and testing, nuclear materials safeguards monitoring, and protective force staffing and training.

Technology Development Activities (PBS: OR-TD-0100)

Overview

This PBS is within the Defense Environmental Cleanup appropriation.

The Technology Development and Deployment program focuses on resolving technical challenges through the application of science and innovation to develop practical solutions for environmental cleanup in response to the highest priority needs of the Office of Environmental Management sites. The goal is to improve the technical maturity of current baseline technologies, to develop cost-effective alternative technologies, and to improve or to provide the next-generation technologies for insertion into program activities. EM is enhancing its technology development and deployment efforts with a coordinated two-prong approach where select projects will be managed at Headquarters while others will be managed at the field sites:

- Longer-term activities with low technology readiness levels (higher development risks) are managed at Headquarters; and
- Shorter-term activities with higher technology readiness levels are managed at the sites where the technology will result in direct mission-related benefits.

The largest environmental risks on the Department of Energy Oak Ridge Reservation stem from ongoing offsite release of mercury from the Y-12 National Security Complex, including the bioaccumulation of mercury in fish and the potential for mercury to migrate into and through groundwater and fractured subsurface environments. To protect human health and the environment, the Department of Energy is initiating a series of early actions that can be taken pending demolition of the process buildings. The challenges associated with the remediation of mercury in soil and water is unique across the complex in both scale and complexity. Current mercury discharges from the Y-12 National Security Complex exceed regulatory standards. Early actions are required in order to address mercury sources, characterize areas that are accessible pending building demolition and treat surface water to meet regulatory standards at the site boundary. The goal of this technology development and deployment investment is to reduce the overall remediation scope, the schedule and the cost for the remediation workscope through improved understanding of mercury transport, characterization development, and removal and waste treatment/disposition techniques.

Technology Development Activities - Oak Ridge (PBS: OR-TD-0100)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
4,091	**3,000**	**-$1,091**
▪ Develop a non-intrusive, surface scanning technology to detect mercury in concrete and other porous building materials. ▪ Evaluate scabbing techniques to remove the top layer of mercury that has penetrated into the concrete. ▪ Evaluate and screen multiple technologies to	• Plan, develop, evaluate, and demonstrate mercury characterization techniques and remediation technologies. • Begin comparative testing and demonstration of multiple technologies to solidify/stabilize or otherwise treat mercury debris, to be performed in conjunction with the Applied Field Research	• Decrease reflects resources necessary to sustain momentum for technology development activities related to mercury characterization techniques and remediation technologies.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
solidify/stabilize mercury debris, to be performed in conjunction with the HQ-led Applied Field Research Initiative for remediation of mercury and industrial contaminants. ▪ Perform a comprehensive field-scale demonstration of characterization, stabilization, segregation, demolition, treatment and disposal of the Alpha 5 COLEX (column exchange) process equipment.	Initiative for Remediation of Mercury and Industrial Contaminants at Oak Ridge National Laboratory. • Build upon characterization and mercury flux assessments, along with improved conceptual models, to refine understanding and numerical models of reactive fate and transport of mercury (to be performed in conjunction with the Applied Field Research Initiative for Remediation of Mercury and Industrial Contaminants and EM's Advanced Simulation Capability for Environmental Management program.)	

Community and Regulatory (Non-Defense) (PBS: OR-0104)

Overview

This PBS is within the Non-Defense Environmental Cleanup appropriation.

This PBS funds activities which support preserving the historical significance of the former K-25 site. The K-25 Building was once the largest facility in the world, over 44 acres under roof, and was a significant part of the Manhattan Project.

Community and Regulatory (Non-Defense) (PBS: OR-0104)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
0	**2,119**	**+$2,119**
• No activities.	• Complete development of the Virtual Museum. • Complete K-25 facility slab feasibility study.	• Funds activities associated with preserving the historical significance of the former K-25 site.

Nuclear Facility D&D-East Tennessee Technology Park (D&D Fund) (PBS: OR-0040)

Overview

This PBS is within the Uranium Enrichment Decontamination and Decommissioning Fund appropriation.

This PBS funds decontamination and decommissioning of facilities and remedial actions for contaminated sites at the East Tennessee Technology Park. It also funds the site infrastructure services. Approximately 2,200 acres of the 5,000 acres at the site contain potential contamination, including known groundwater contaminant plumes from former burial grounds and contaminated soils. This PBS includes approximately 165 release sites requiring remediation and 500 facilities (125 major buildings) requiring decontamination and decommissioning. The decommissioning and demolition of the former K-25 gaseous diffusion process-building is the top priority because of worker safety concerns stemming from the continued deteriorating condition of the building. The scope of the K-25 building subproject is to abate the hazardous materials; remove the process equipment and excess materials stored in the buildings; demolish the building structures; and appropriately characterize, package, transport and dispose of all the associated wastes. The scope of this PBS also includes: the decontamination and decommissioning of other facilities (including planning, deactivation of utilities, asbestos and other hazardous material abatement, equipment dismantlement and disposal, structure demolition and waste disposition); site infrastructure services including fire protection; utility services; environmental, safety, and health programs; real property management; power operations and maintenance; and capital improvements and repairs.

Nuclear Facility D&D-East Tennessee Technology Park (D&D Fund) (PBS: OR-0040)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
176,815	**137,898**	**-$38,917**
• Maintain East Tennessee Technology Park in a safe and secure condition. • Conduct base operations activities at the East Tennessee Technology Park to provide infrastructure and support to cleanup projects. • Complete K-25 demolition and debris disposition. • Continue high risk equipment removal and demolition activities in the K-25 East Wing. • Initiate K-27 decontamination and decommissioning pre-demolition activities. • Conduct characterization activities in K-31 and evaluate options for accelerating East Tennessee Technology Park closure.	• Maintain East Tennessee Technology Park in a safe and secure condition. • Conduct base operations activities at the East Tennessee Technology Park to provide infrastructure and support to cleanup projects. • Continue Building K-27 deactivation activities. • Perform pre-demolition/demolition activities on selected remaining facilities, including the former K-31 gaseous diffusion plant facility.	• Decrease reflects completion of K-25 Building high risk equipment removal and demolition activities.

East Tennessee Technology Park Contract/Post-Closure Liabilities/Administration (PBS: OR-0102)

Overview

This PBS is within the Uranium Enrichment Decontamination and Decommissioning Fund.

This PBS funds ongoing, long-term contractor obligations including post-retirement life and medical, long-term disability and pension benefits for pre-April 1998 retirees, who supported Oak Ridge enrichment facility programs.

East Tennessee Technology Park Contract/Post-Closure Liabilities/Administration (PBS: OR-0102)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
18,9260	**21,693**	**+$2,767**
• Continue funding of contractor liabilities associated with post-retirement life, medical benefits and pensions.	• Continue funding of contractor liabilities associated with post-retirement life, medical benefits and pensions.	• Increase reflects additional requirements for contractor post-retirement life, medical benefits, and pensions.

Oak Ridge Capital Summary ($K)

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Current
Capital Operating Expenses Summary (including (Major Items of Equipment (MIE))							
Plant Projects (GPP and IGPP) (<$10M)	0	364	1,528	1,422	1,422	0	-2,622
Total, Capital Operating Expenses	**0**	**364**	**1,528**	**1,422**	**1,422**	**0**	**-2,622**
Plant Projects (GPP and IGPP) (Total Estimated Cost (TEC) <$10M)							
Oak Ridge							
SWSA 5	0	364	1,294	1,422	1,422	0	-1,422
Site Access Control Buildout	0	0	234	0	0	0	0
Total, Oak Ridge	**0**	**364**	**1,528**	**1,422**	**1,422**	**0**	**-1,422**
Total, Capital Summary	**0**	**364**	**1,528**	**1,422**	**1,422**	**0**	**-1,422**

Oak Ridge Construction Projects Summary ($K)

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
14-D-403, Outfall 200 Mercury Treatment Facility, OR (OR-0041)							
Total Estimate Cost (TEC)	TBD	0	0	4,608	4,608	9,400	+4,792
Other Project Costs (OPC)	TBD	0	0	0	0	1,000	+1,000
Total Project Cost (TPC) 15-D-403	TBD	0	0	4,608	4,608	10,400	+5,792
Sludge Build Out, OR (OR-0013B)							
Oak Ridge Solid Waste (OR-0013B)							
Total Estimate Cost (TEC)	TBD	0	0	0	0	0	0
Other Project Costs (OPC)	TBD	10,177	5,428	7,000	7,000	0	-7,000
Subtotal, Sludge Build Out, OR-0013B	TBD	10,177	5,428	7,000	7,000	0	-7,000
15-D-405, Sludge Build Out, OR (OR-0013B)							
Total Estimate Cost (TEC)	TBD	0	0	0	0	4,200	+4,200
Other Project Costs (OPC)	TBD	0	0	0	0	8,900	+8,900
Subtotal, 15-D-405, Sludge Build Out, OR (OR-0013B)	TBD	0	0	0	0	13,100	+13,100
Total Project Cost (TPC) 15-D-405	TBD	10,177	5,428	7,000	7,000	13,100	+6,100

14-D-403
Outfall 200 Mercury Treatment Facility
Oak Ridge Tennessee
Project is for Design and Construction

1. Summary and Significant Changes

The FY 2014 Omnibus appropriation provided $4,600,000 for this line item construction project under 14-D-403. Critical Decision-0 was approved by the Acquisition Executive in February 2014. Critical Decision-1 approval for this project is anticipated during the first quarter of FY 2015.

A Total Project Cost (TPC) for the project will be determined as the design matures and upon final baseline validation and approval at CD-2 which is anticipated to be the 4th quarter of FY 2017.

A Federal Project Director has been assigned to the project. The FPD is currently certified at Level II. The FPD has met Level III certification requirements and is pursuing Level III certification approval.

This Project Data Sheet does not include a new start for FY 2015.

This Project Data Sheet is new.

2. Critical Decision (CD) and D&D Schedule

(fiscal quarter or date)

	CD-0	CD-1	Design Complete	CD-2	CD-3	CD-4	D&D Start	D&D Complete
FY 2015 Request	2Q FY 2014	1Q FY 2015	1Q FY2017	4Q FY2017	TBD	TBD	N/A	N/A

[a] Critical Decision-0 approval was issued on 7/20/2007 for the aggregate clean-up of the Y-12 National Security Site. Conceptual Design activities for this project were not initiated until FY 2012. An updated, project-specific Critical Decision-0 was approved in February 2014.

CD-0 – Approve Mission Need
CD-1 – Approve Alternative Selection and Cost Range
CD-2 – Approve Performance Baseline
CD-3 – Approve Start of Construction
CD-4 – Approve Start of Operations or Project Closeout
D&D Start – Start of Demolition & Decontamination (D&D) work
D&D Completion – Completion of D&D work

3. Baseline and Validation Status ($K)

	TEC, Design	TEC, Construction	TEC, Total	OPC, Except D&D	OPC, D&D	OPC, Total	TPC
FY 2015	34,500	TBD	TBD	TBD	0	TBD	TBD

Note: A Total Project Cost (TPC) for the project will be determined as the design matures and upon final baseline validation and approval at CD-2 which is anticipated to be the 4th quarter of FY 2017.

4. Project Description, Justification, and Scope

Mission Need

Historical missions at the Y-12 National Security Complex (NSC) resulted in the release of mercury to the environment. Residual mercury in the 60-year-old, deteriorating storm drain infrastructure, infiltrating groundwater and sediment-bound mercury are remobilized and transported through the storm drain network to Outfall 200 (OF200) into the Upper East Fork Poplar Creek (UEFPC). Currently, this is the largest environmental risk on the U.S. Department of Energy (DOE) Oak Ridge Reservation (ORR). The primary pathway of concern is surface water because the Upper East Fork Poplar Creek flows directly from the Y-12 complex into the city of Oak Ridge. Over the past two decades, DOE has implemented a series of projects that have reduced the concentrations of mercury measured at the site boundary at Station 17, the Y-12 National Pollutant Discharge Elimination System (NPDES) permit compliance point. Despite the success of these actions, an unknown volume of mercury remains in the soils beneath and adjacent to the buildings, storm sewers, and process pipelines, which continues to be released to the storm sewer system. Design and construction of a water treatment system at Outfall 200 is expected to mitigate the current downstream migration of mercury, as well as potential future changes in mercury flux characteristics.

Scope and Justification

The scope of this project is to design and construct a Mercury Treatment Facility at Outfall 200 having a footprint of approximately 30,000 square feet. The treatment facility will consist of outdoor tanks, piping, and transfer and treatment equipment along with a metal building to house weather-sensitive equipment and controls. The facility will include a building to house the treatment equipment, road and utility relocations, foundations, parking, and fencing. The Outfall 200 Mercury Treatment Facility will be located near the head waters of Upper East Fork Poplar Creek, at the Y-12 National Security Complex in Oak Ridge, TN, as a Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) interim remedial action. The facility will provide treatment of storm sewer water discharges through Outfall 200, for the removal of mercury. The facility will accomplish mercury removal through a combination of unit operations, including grit removal, chemical precipitation, clarification and media filtration.

The Comprehensive Environmental Response, Compensation, and Liability Act and DOE O 413.3B CD-1 process to support design and construction of the facility is ongoing.

The project will be developed and conducted in accordance with the project management requirements in DOE O 413.3B, Program and Project Management for the Acquisition of Capital Assets, and all appropriate project management requirements will be met throughout project execution.

5. Financial Schedule

(dollars in thousands)

	Appropriations	Obligations	Costs
Total Estimated Cost (TEC)			
Design			
FY 2014	4,600	4,600	0
FY 2015	9,400	9,400	8,900
Outyears	20,500	20,500	25,600
Total, Design	34,500	34,500	34,500
Construction			
Outyears	TBD	TBD	TBD
Total, Construction	TBD	TBD	TBD
TEC			

(dollars in thousands)

	Appropriations	Obligations	Costs
FY 2014	4,600	4,600	0
FY 2015	9,400	9,400	8,900
Outyears	TBD	TBD	5,100
Total TEC	TBD	TBD	TBD
Other Project Cost (OPC)			
OPC except D&D			
FY 2012	2,300	2,300	2,300[a]
FY 2013	3,300	3,300	3,300[b]
FY 2014	7,000	7,000	6,700
FY 2015	1,000	1,000	1,300
Outyears	TBD	TBD	TBD
Total, OPC except D&D	TBD	TBD	TBD
OPC			
FY 2012	2,300	2,300	2,300[a]
FY 2013	3,300	3,300	3,300[b]
FY 2014	7,000	7,000	6,700
FY 2015	1,000	1,000	1,300
Outyears	TBD	TBD	TBD
Total, OPC	TBD	TBD	TBD
Total Project Cost (TPC)			
FY 2012	2,300	2,300	2,300[a]
FY 2013	3,300	3,300	3,300[b]
FY 2014	11,600	11,600	6,700
FY 2015	10,400	10,400	10,200
Outyears	TBD	TBD	TBD
Total, TPC	TBD	TBD	TBD

[a] FY 2012 OPC cost of $2,300 was funded by Recovery Act appropriations.
[b] FY 2013 OPC cost of $2,900 was funded by Recovery Act appropriations.

6. Details of Project Cost Estimate

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Total Estimated Cost (TEC)			
Design (PED)			
Design	21,600		N/A
Title III	10,200		N/A
Contingency	2,700		N/A
Total Design	34, 500		N/A
Construction			
Construction	TBD		N/A
Contingency	TBD		N/A

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Total Construction	TBD		N/A
Total, TEC	TBD		N/A
Contingency, TEC	TBD		N/A
Other Project Cost (OPC)			
OPC except D&D			
Conceptual Design	8,000		N/A
Start-Up	TBD		N/A
Contingency	TBD		N/A
Other OPC	TBD		N/A
Total, OPC except D&D	TBD		N/A
Total, OPC	TBD		N/A
Contingency, OPC	TBD		N/A
Total, TPC	TBD		N/A
Total, Contingency	TBD		N/A

7. Schedule of Appropriation Requests

Request		Prior Years	FY 2014	FY 2015	Outyears	Total
FY 2015 Request	TEC	0	4,600	9,400	TBD	TBD
	OPC	5,600	7,000	1,000	TBD	TBD
	TPC	5,600	11,600	10,400	TBD	TBD

8. Related Operations and Maintenance Funding Requirements

Start of Operation or Beneficial Occupancy (fiscal quarter or date)	1Q FY2023
Expected Useful Life (number of years)	30
Expected Future Start of D&D of this Capital Asset (fiscal quarter)	1Q FY2053

(dollars in thousands)

	Annual Costs		Life Cycle Costs	
	Current Total Estimate	Previous Total Estimate	Current Total Estimate	Previous Total Estimate
Operations	6,000		180,000	
Utilities	0		0	
Maintenance	0		0	
Total, Operations & Maintenance	6,000		180,000	

9. Required D&D Information

Area	Square Feet
N/A	N/A

This project is providing new capability and is not replacing a current capability. Thus, this project was not justified on the basis of replacing current facilities. Therefore, no existing facilities will be demolished in conjunction with this project.

10. Acquisition Approach

Awarded contract to URS/CH2M Oak Ridge, LLC (UCOR) on April 29, 2011. This contract includes the design of the Outfall 200 Mercury Treatment Facility and support for DOE Order 413.3B Critical Decision approval through CD-2/3. The contract is a cost plus award fee with performance based incentives.

An Acquisition Strategy is being developed for the construction phase of the project to support Critical Decision-1 approval.

15-D-405
Sludge Processing Facility Buildouts
Oak Ridge Tennessee
Project is for Design and Construction

1. Summary and Significant Changes

The development of the sludge processing capabilities was scope included within a previously authorized line item project the privatized design and construction of the Oak Ridge Transuranic Waste Processing Center (97-PVT-3, Transuranic Waste Processing, Oak Ridge). Prior to the full scope being completed under the privatized contract terms, including development of these needed capabilities, DOE terminated the contract and transitioned the Transuranic Waste Processing Center to be a government-owned facility, and the efforts to acquire the sludge processing capabilities are being pursued by DOE in accordance with DOE Order 413.3B.

The most recent DOE O 413.3B approved Critical Decision is Critical Decision-1, which was approved on March 25, 2010. The project is currently seeking Critical Decision-1 re-approval for the solidification and stabilization alternative to update the cost range.

This scope was originally part of a larger project (OR-0013B) for Solid Waste Stabilization and Disposition. It was formally segregated into a separate capital asset operating project and declared to be at a Critical Decision-1 level of maturity. When the capital asset project for sludge was initially identified, all project costs were not included in the original Critical Decision-1 range and the initial cost range was underestimated. Additionally, DOE has determined the project will conduct extensive mock-up testing that was not originally planned, but is required to achieve technology maturation required for subsequent Critical Decision approvals. Through FY 2013, approximately $15,605,000 has been expended on the sludge planning efforts, including $12,205,000 in conceptual design activities. Preliminary design efforts will not proceed until the CD-1 re-approval is granted.

A Total Project Cost (TPC) for the project will be determined as the design matures and upon final baseline validation and approval at CD-2 which is anticipated to be the 4th quarter of FY 2018.

A Federal Project Director has been assigned to the project. The Federal Project Director is currently certified at Level II. The Federal Project Director has met Level III certification requirements and is pursuing Level III certification approval.

This Project Data Sheet does include a new start for FY 2015.

This Project Data Sheet is new.

2. Critical Decision (CD) and D&D Schedule

(fiscal quarter or date)

	CD-0	CD-1	Design Complete	CD-2	CD-3	CD-4	D&D Start	D&D Complete
FY 2015 Request	4/24/2007	2Q FY 2014[a]	2Q FY2018	4Q 2018	TBD	TBD	N/A	N/A

[a] CD-1 originally approved on 03/25/2010. Re-approval of CD-1 is scheduled for 2Q of FY 2014.

CD-0 – Approve Mission Need
CD-1 – Approve Alternative Selection and Cost Range
CD-2 – Approve Performance Baseline
CD-3 – Approve Start of Construction
CD-4 – Approve Start of Operations or Project Closeout
D&D Start – Start of Demolition & Decontamination (D&D) work
D&D Completion – Completion of D&D work

3. Baseline and Validation Status ($K)

	TEC, Design	TEC, Construction	TEC, Total	OPC, Except D&D	OPC, D&D	OPC, Total	TPC
FY 2015	23,700	TBD	TBD	TBD	0	TBD	TBD

Note: A Total Project Cost (TPC) for the project will be determined as the design matures and upon final baseline validation and approval at CD-2 which is anticipated to be the 4th quarter of FY 2018.

4. Project Description, Justification, and Scope

Mission Need

The Sludge Processing Facility Buildouts Project is required to support the Transuranic Waste Processing Center (TWPC) mission to process, ship and disposition the legacy Transuranic (TRU) sludge and associated tank supernate waste at Oak Ridge National Laboratory (ORNL), estimated to be 2,000 cubic meters. The project consists of design, mock-up testing, construction, equipment installation, commissioning, and operational readiness reviews to provide the capability to mobilize sludge from existing tanks and transfer to the Transuranic Waste Processing Center for treatment by solidification and stabilization resulting in a Low Level Waste (LLW) form that can be disposed at the Nevada Nuclear Security Site.

Scope and Justification

The Sludge Processing Facility Buildouts Project will expand the existing Transuranic Waste Processing Center in Oak Ridge, TN to enable processing of 2,000 cubic meters of sludge and supernate stored in underground storage tanks adjacent to the facility. The project includes an annex to the existing facility to house sludge stabilization and solidification process equipment. The project also includes installation of sludge mobilization equipment in the sludge storage tank area. A temporary Mock-up Test Facility will provide for technology testing and maturation of the mobilization and solidification/stabilization process.

The project is being conducted under the National Environmental Policy Act of 1969 (NEPA). An Environmental Impact Statement (EIS) Supplement Analysis (SA) determination (DOE/EIS-0305- SA-01) has been submitted in accordance with the *Final Environmental Impact Statement for Treating Transuranic (TRU)/Alpha Low-Level Waste at the Oak Ridge National Laboratory, Oak Ridge, Tennessee* (DOE/EIS-0305-F; June 2000). An amended Record of Decision in response to the approval of the SA Determination is anticipated in FY2014.

The project will be developed and conducted in accordance with the project management requirements of DOE O 413.3B, Program and Project Management for the Acquisition of Capital Assets, and all appropriate project management requirements will be met throughout project execution.

5. Financial Schedule

(dollars in thousands)

	Appropriations	Obligations	Costs
Total Estimated Cost (TEC)			
Design (PED)			
FY 2015	4,200	4,200	3,100
Outyears	19,500	19,500	20,600
Total, Design	23,700	23,700	23,700
Construction			
Outyears	TBD	TBD	TBD
Total, Construction	TBD	TBD	TBD
TEC			
FY 2015	4,200	4,200	3,100
Outyears	TBD	TBD	TBD
Total, TEC	TBD	TBD	TBD
Other Project Cost (OPC)			
OPC except D&D			
FY 2010[a]	4,155	4,155	4,155
FY 2011[b]	4,598	4,598	4,598
FY 2012[c]	1,424	1,424	1,424
FY 2013	5,428	5,428	5,428
FY 2014	7,000	7,000	2,800
FY 2015	8,900	8,900	4,000
Outyears	TBD	TBD	TBD
Total, OPC except D&D	TBD	TBD	TBD
OPC			
FY 2010[a]	4,155	4,155	4,155
FY 2011[b]	4,598	4,598	4,598
FY 2012[c]	1,424	1,424	1,424
FY 2013	5,428	5,428	5,428
FY 2014	7,000	7,000	2,800
FY 2015	8,900	8,900	4,000
Outyears	TBD	TBD	TBD
Total, OPC	TBD	TBD	TBD
Total Project Cost (TPC)			
FY 2010[a]	4,155	4,155	4,155
FY 2011[b]	4,598	4,598	4,598
FY 2012[c]	1,424	1,424	1,424
FY 2013	5,428	5,428	5,428
FY 2014	7,000	7,000	2,800
FY 2015	13,100	13,100	7,100
Outyears	TBD	TBD	TBD
Total, TPC	TBD	TBD	TBD

[a] FY 2010 costs include $1,069,000 funded by the American Recovery and Reinvestment Act.

[b] FY 2011 costs include $3,043,000 funded by the American Recovery and Reinvestment Act.
[c] FY 2012 costs include $347,000 funded by the American Recovery and Reinvestment Act.

6. Details of Project Cost Estimate

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Total Estimated Cost (TEC)			
Design (PED)			
Design	15,600		N/A
Title III	2,800		
Contingency	5,300		N/A
Total, PED	23,700		N/A
Construction			
Construction	TBD		N/A
Contingency	TBD		N/A
Total Construction	TBD		N/A
Total, TEC	TBD		N/A
Contingency, TEC	TBD		N/A
Other Project Cost (OPC)			
OPC except D&D			
Conceptual Design	12,205		N/A
Start-Up	TBD		N/A
Contingency	TBD		N/A
Other OPC	TBD		N/A
Total, OPC except D&D	TBD		N/A
Total, OPC	TBD		N/A
Contingency, OPC	TBD		N/A
Total, TPC	TBD		N/A
Total, Contingency	TBD		N/A

7. Schedule of Appropriation Requests ($K)

Request		Prior Years	FY 2014	FY 2015	Outyears	Total
FY 2015 Request	TEC	0	0	4,200	TBD	TBD
	OPC	15,605	7,000	8,900	TBD	TBD
	TPC	15,605	7,000	13,100	TBD	TBD

8. Related Operations and Maintenance Funding Requirements

Start of Operation or Beneficial Occupancy (fiscal quarter or date)	4Q FY 2022
Expected Useful Life (number of years)	3
Expected Future Start of D&D of this Capital Asset (fiscal quarter)	1Q FY 2040

(dollars in thousands)

	Annual Costs		Life Cycle Costs	
	Current Total Estimate	Previous Total Estimate	Current Total Estimate	Previous Total Estimate
Operations	68,700		206,100	
Utilities	0		0	
Maintenance	1,625		4,875	
Total, Operations & Maintenance	70,325		210,975	

9. Required D&D Information

Area	Square Feet
N/A	N/A

This project is providing new capability and is not replacing a current capability. Thus, this project was not justified on the basis of replacing current facilities. Therefore, no existing facilities will be demolished in conjunction with this project

10. Acquisition Approach

An updated Acquisition Strategy for completion of the design and construction phases of this project has been developed to support Critical Decision-1 re-approval. This Project Data Sheet assumes an Architect and Engineering Services contract will be acquired to complete the design phase of the project and to provide Title III Support during the construction phase. Therefore, Title III Support is PED.

Paducah

Overview

The Paducah Site will support the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and Cold War activities. The overall cleanup strategy at Paducah will take near-term actions to control or eliminate ongoing sources of contamination along with continued investigation of other potential sources.

Paducah will operate the depleted uranium hexafluoride conversion facility. DOE anticipates the depleted uranium hexafluoride conversion operations will continue approximately thirty years.

To complete cleanup, Paducah will maintain a safe, secure, and compliant posture; support high priority groundwater remediation; deactivate and decommission excess facilities; disposition mixed and low-level waste; and reduce DOE's liabilities through involvement with local community stakeholders.

Direct maintenance and repair of the remediation related infrastructure at the Paducah Gaseous Diffusion Plant is estimated to be $36,405,000 in FY 2015.

Regulatory Framework

In May 1994, the Paducah site was placed on the United States Environmental Protection Agency's National Priorities List under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980. The 1997 Federal Facility Agreement among the Department, the Commonwealth of Kentucky, and the United States Environmental Protection Agency-Region 4 established the framework for cleanup at Paducah, instituted enforceable milestones, and coordinated site-specific cleanup requirements under the Comprehensive Environmental Response, Compensation, and Liability Act and the Resource Conservation and Recovery Act. The Department also achieved resolution of long-standing regulatory disputes through the Agreed Order with the Commonwealth of Kentucky.

The United States Environmental Protection Agency and the Kentucky Department for Environmental Protection are the principal regulatory agencies for Paducah's waste management operations, in compliance with provisions of the Resource Conservation and Recovery Act-Part B, Hazardous Waste Management Permits; the Toxic Substances Control Act regulations for polychlorinated biphenyl wastes; DOE Order 435.1-Radioactive Waste Management; the Commonwealth of Kentucky, surface water discharge regulations and the Commonwealth of Kentucky solid and hazardous waste regulations.

Contractual Framework

Program planning and management at Paducah is conducted through the issuance and execution of contracts to large and small businesses. Paducah develops near-term and long-term planning approaches in order to develop contract strategies and program/project plans at a more detailed level. Selected contractors then execute these plans to complete cleanup on schedule. Current contracts at Paducah include:

- Babcock and Wilcox Conversion Services contract for treatment and disposition of Depleted Uranium Hexafluoride, covering the period from 1/03/11 - 1/1/16.
- LATA Kentucky contract for decontamination and decommissioning of surplus buildings and legacy soil and groundwater remediation, covering the period 7/22/10 - 7/25/15. The contractor is a small business.
- Swift and Staley contract for site support services covering the period 3/16/10 - 3/15/15. The contractor is a small business.

There is an ongoing acquisition for Paducah Gaseous Diffusion Plant Deactivation. Proposals were received on September 27, 2013, with award to follow between August and October of 2014. It will be a term contract for 3 years of performance, under a predominately cost plus with some fixed priced line items.

Highlights of the FY 2015 Budget Request

This FY 2015 Budget Request supports the continued transition of the return of the Gaseous Diffusion Plant to DOE from lease by the United States Enrichment Corporation. In addition, this Request supports cost effective projects related to the deactivation and decommissioning of the Paducah Gaseous Diffusion Plant that will significantly reduce worker safety risks, avoid long-term storage costs, reduce surveillance and maintenance costs, and increase the efficiency of deactivation when initiated. These projects include the Technicium-99 project, uranium deposit removal, legacy records disposition, polychlorinated biphenyl oils disposition, and a Freon treatability study.

The FY 2015 request includes $9M for the potential Paducah On-Site Waste Disposal Facility project. The mission of this project (if the on-site facility is selected as the appropriate remedy) will be to construct a landfill to provide on-site disposal capacity for anticipated demolition debris and environmental remediation waste from the Paducah cleanup projects. The $9,000,000requested for this project includes $8,486,000 for 15-U-407 for design activities and $514,000Kfor other project costs funded within PBS PA-0040 Nuclear Facility D&D - Paducah.

FY 2015 - Key Milestones/Outlook

- (Oct 2014) Issue Onsite Waste Disposal Facility Record of Decision D1 to Regulators
- (Nov 2014) Issue Federal Facility Agreement Annual D1 Site Management Plan to Regulators
- (Jan 2015) Issue Burial Grounds Solid Waste Management Unit 4 Remedial Investigation Report Addendum to Regulators
- (Jan 2015) Issue Onsite Waste Disposal Facility Remedial Design Work Plan D1 to Regulators
- (Feb 2015) Issue Southwest Plume SWMUs 211A and 211B D1 Remedial Design Report
- (Feb 2015) Issue Southwest Plume C-720 Remedial Design Report D1 to Regulators
- (Mar 2015) Issue Southwest Plume SWMUs 211A and 211B D1 Remedial Action Work Plan
- (Mar 2015) Issue Southwest Plume C-720 Remedial Action Work Plan D1 to Regulators
- (Jun 2015) Issue Burial Grounds Solid Waste Management Unit 5 and 6 Remedial Action Work Plan to Environmental Protection Agency/Kentucky (D1)
- (Aug 2015) Issue Burial Grounds Solid Waste Management Unit 4 Feasibility Study Report D1 to Regulators

Strategic Management

The overall environmental cleanup strategy at Paducah is based on taking near-term actions to control or eliminate ongoing sources of contamination along with continued investigation of other potential sources. DOE is currently working with the Kentucky Department for Environmental Protection and the United States Environmental Protection Agency, Region 4, to further define which projects can be sequenced, while optimizing resources and utilizing a risk-based approach, to ensure timely environmental cleanup and minimize workforce impacts.

The factors that could have significant impact on individual projects and may impact the overall cleanup scope, schedule, and costs are identified below:

- DOE does not have a regulatory agreement on final cleanup levels, which remains a long-term, end-state issue.
- The final Comprehensive Environmental Response, Compensation and Liability Act action for the Paducah environmental remedial activities are ongoing. Until Records of Decision are agreed upon, a high degree of project uncertainty exists. For example, current planning assumptions include that no more than three burial grounds will require excavation, and that the other burial grounds will be capped and managed in situ.
- Future decontamination and decommissioning costs will be subject to several significant uncertainties including the extent of final environmental contamination; regulatory frameworks (Resource Conservation and Recovery Act vs. Comprehensive Environmental Response, Compensation and Liability Act cleanup levels), disposal options; and stakeholder/regulator acceptance.

The FY 2015 Request is proposing a new control point within the Uranium Enrichment Decontamination and Decommissioning Fund Appropriation in order to better manage requirements for Pension and Community and Regulatory activities.

The funding table below provides a comparable display of the impacted activities and a comparable display will be continued throughout this budget chapter to aid in budget review.

Paducah
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
Safeguards and Security						
PA-0020 / Safeguards and Security	7,297	12,434	0	12,434	7,297	-5,137
Non-Defense Environmental Cleanup						
Gaseous Diffusion Plants						
Paducah Gaseous Diffusion Plant						
PA-0011 / NM Stabilization and Disposition-Paducah Uranium Facilities Management	1,369	1,369	0	1,369	1,369	0
PA-0011X / NM Stabilization and Disposition-Depleted Uranium Hexafluoride Conversion	48,333	45,501	0	45,501	51,517	+6,016
Subtotal, Paducah Gaseous Diffusion Plant	**49,702**	**46,870**	**0**	**46,870**	**52,886**	**+6,016**
Uranium Enrichment Decontamination and Decommissioning Fund						
Paducah						
Paducah Gaseous Diffusion Plant						
PA-0040 / Nuclear Facility D&D-Paducah	90,009	262,057	0	262,057	207,215	-54,842
Pension and Community and Regulatory Support						
Paducah Gaseous Diffusion Plant						
PA-0102 / Paducah Contract/Post-Closure Liabilities/Administration	2,525	1,438	0	1,438	650	-788
PA-0103 / Paducah Community and Regulatory Support	0	1,725	0	1,725	1,725	0
Subtotal, Paducah Gaseous Diffusion Plant	**2,525**	**3,163**	**0**	**3,163**	**2,375**	**-788**
Total, Uranium Enrichment Decontamination and Decommissioning Fund	**92,534**	**265,220**	**0**	**265,220**	**209,590**	**-55,630**
Total, Paducah	**149,533**	**324,524**	**0**	**324,524**	**269,773**	**-54,751**

Paducah
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup	
Safeguards and Security	
PA-0020 / Safeguards and Security	
• Decrease reflects the later than anticipated turnover of the Paducah Gaseous Diffusion Plant by the United States Enrichment Corporation in late FY 2014 or early FY 2015. Carryover at the start of FY 2015 allows DOE to reduce funding for this activity.	-5,137
Non-Defense Environmental Cleanup	
Gaseous Diffusion Plants	
Paducah Gaseous Diffusion Plant	
PA-0011X / NM Stabilization and Disposition-Depleted Uranium Hexafluoride Conversion	
• Increase is due to the continuing efforts to establish long-term capability/operability of the DUF6 facility. These efforts are needed to conduct steady state operations with emphasis on plant availability and maximum achievable routine throughput.	+6,016
Uranium Enrichment Decontamination and Decommissioning Fund	
Paducah	
PA-0040 / Nuclear Facility D&D-Paducah	
• Decrease reflects the later than anticipated turnover of the Paducah Gaseous Diffusion Plant by the United States Enrichment Corporation in late FY 2014 or early FY 2015. Carryover at the start of FY 2015 allows DOE to reduce funding for this project. The decrease is partially offset by the initiation of design activities on the potential On-Site Waste Disposal Facility.	-54,842
Pension and Community and Regulatory Support	
PA-0102 / Paducah Contract/Post-Closure Liabilities/Administration	
• The net decrease is attributable to a reduction in pension and post retirement contribution requirements.	-788
Total, Paducah	**-54,751**

Safeguards and Security (PBS: PA-0020)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The safeguards and security program at the Paducah Gaseous Diffusion Plant provides security services to protect nuclear materials, sensitive uranium enrichment technology, equipment, and facilities. This program includes maintaining a security guard force to protect nuclear materials and classified technology/information and complying with cyber security requirements necessary to protect DOE information. The safeguards and security program also supports the Paducah remediation and cleanup programs.

Upon return of the Gaseous Diffusion Plant to DOE, DOE will become responsible for providing security operations necessary to protect the respective site's national security interests and government property. Safeguard and security activities include protective forces, protection of restricted data associated with gaseous diffusion technology and legacy nuclear weapons components, special nuclear material, official use only information, unclassified controlled nuclear information, export controlled information, and high risk government property. This risk-based site security is in keeping with the evolving EM mission at Paducah.

Safeguards and Security (PBS: PA-0020)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
12,434	**7,297**	**-$5,137**
• Provide Safeguards and Security services program at the Paducah site. • Continue compliance with Homeland Security Presidential Directive 12 requirements. • Provide cyber security and security services for personnel, equipment, information, classified matter, and special nuclear materials relating to DOE missions, to include decommissioning, decontamination, and demolition activities.	• Provide Safeguards and Security services program at the Paducah site. • Provide site safeguards and security services for protection program management, emergency response, Physical Security, information protection, Protective Force, Personnel Security, Cyber Security and Nuclear Material Control and Accountability.	• Decrease reflects the later than anticipated turnover of the Paducah Gaseous Diffusion Plant by the United States Enrichment Corporation in late FY 2014 or early FY 2015. Carryover at the start of FY 2015 allows DOE to reduce funding for this activity.

NM Stabilization and Disposition (PBS: PA-0011)

Overview

This PBS is within the Non-Defense Environmental Cleanup appropriation.

This project scope includes management of legacy polychlorinated biphenyl remediation activities to maintain compliance with the Toxic Substances Control Act (40 CFR 761), the Uranium Enrichment Toxic Substances Control Act Federal Facilities Compliance Agreement of 1992, DOE Orders, and other applicable requirements. Polychlorinated biphenyls were used as coolant fluids and are a toxic environmental contaminant. The polychlorinated biphenyl collection and containment trough systems in the cascade buildings (C-310, C-315, C-331, C-333, C-335, and C-337) cover approximately 6,400,000 ft^2 and contain approximately 16,000 collection systems.

NM Stabilization and Disposition-Paducah Uranium Facilities Management (PBS: PA-0011)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
1,369	**1,369**	**0**
• Continue to maintain cleanup, sampling, and decontamination of polychlorinated spills, leaks, and monitoring activities related to polychlorinated biphenyls. • Continue field activities associated with the polychlorinated biphenyl collection and containment troughing system in the cascade buildings (C-331, C-333, C-335, and C-337).	• Continue to monitor activities related to polychlorinated biphenyls and to maintain cleanup, sampling, and decontamination of polychlorinated spills and leaks. • Maintain polychlorinated biphenyl collection and containment trough systems in the cascade buildings.	• No change.

NM Stabilization and Disposition-Depleted Uranium Hexafluoride Conversion (PBS: PA-0011X)

Overview

This PBS is within the Non-Defense Environmental Cleanup appropriation.

This PBS scope includes operating a depleted uranium hexafluoride conversion facility at the Paducah Gaseous Diffusion Plant site. The facility converts depleted uranium hexafluoride into a more stable chemical form (depleted uranium oxide) suitable for beneficial reuse or disposition. The depleted uranium oxide and cylinders will initially be stored on-site and ultimately sent to a disposal facility if beneficial reuses are not realized. The hydrogen fluoride co-product will be sold on the commercial market for unrestricted use. The proceeds from the sale of hydrogen fluoride are used to offset project operating costs.

This PBS also includes surveillance and maintenance of all depleted uranium hexafluoride cylinders during conversion of the existing stockpile, which will take approximately thirty years. Completion of these activities will contribute to reducing the footprint and total cleanup of the site.

NM Stabilization and Disposition-Depleted Uranium Hexafluoride Conversion (PBS: PA-0011X)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
45,501	**51,517**	**+$6,016**
• Continue steady state operations of the DUF6 conversion facility with emphasis on plant availability and achieving nominal conversion capacity. • Package converted depleted uranium oxide for beneficial reuse or disposal and store on site. • Conduct cylinder surveillance and maintenance, to keep existing material in a safe stable condition.	• Continue steady state operations of the DUF6 conversion facility with emphasis on plant availability and achieving nominal conversion capacity. • Package converted depleted uranium oxide for beneficial reuse or disposal and store on site. • Conduct cylinder surveillance and maintenance, to keep existing material in a safe stable condition.	• Increase is due to the continuing efforts to establish long-term capability/operability of the DUF6 facility. These efforts are needed to conduct steady state operations with emphasis on plant availability and maximum achievable routine throughput.

Nuclear Facility D&D (PBS: PA-0040)

Overview

This PBS is within the Uranium Enrichment Decontamination and Decommissioning Fund appropriation.

This PBS will take advantage of the lessons learned from the deactivation, decontamination, decommissioning, and demolition of the Portsmouth Gaseous Diffusion Plant. Deactivation at Paducah will begin in FY 2015.

The scope of this PBS includes environmental cleanup and risk reduction through focused response actions and surveillance and maintenance activities. The response actions involve treatment of on-site and off-site groundwater plumes and surface water, remediation of contaminated soils and burial grounds, and decontamination and decommissioning of inactive or excess facilities. The scope also includes landfill operations and maintenance activities (previously included in PBS PA-0013).

This PBS also includes the design and construction of a capital project; the potential On-Site Waste Disposal Facility for disposition of the wastes generated from the site-wide cleanup, including wastes generated from the decontamination, decommissioning, and demolition of the Gaseous Diffusion Plant.

With the return of the Paducah Gaseous Diffusion Plant to DOE, the decontamination and decommissioning of the Paducah Gaseous Diffusion Plant is now included in this project scope. Activities included in this project scope are surveillance and maintenance, plant modifications, and activities required for long term storage depending on the scenario selected. Compliance requirements are subject to negotiations with the regulators.

Completion of these activities is required for reducing the site footprint and completing cleanup of the site.

Nuclear Facility D&D-Paducah (PBS: PA-0040)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
262,057	**207,215**	**-$54,842**
• Construct and start operations of C-400 Phase IIb Trichloroethylene Treatability Study. • Complete operations of C-400 Phase IIa Trichloroethylene Source Area Remedial Treatment System. • Complete design and field work preparation documents for the Southwest Plume Trichloroethylene Source Area Deep Soil Mixing. • Start construction of the optimization of	• Complete transition of the Gaseous Diffusion Plant (in a cold and dark state) from the United States Enrichment Corporation to the Department of Energy. • Continue C-400 Trichloroethylene Source Area Phase IIb Treatability Study Field Work. • Complete optimization of the Northeast Plume pump and treat, eliminating further offsite migration.	• Decrease reflects the later than anticipated turnover of the Paducah Gaseous Diffusion Plant by the United States Enrichment Corporation in late FY 2014 or early FY 2015. Carryover at the start of FY 2015 allows DOE to reduce funding for this project. The decrease is partially offset by the initiation of design activities on the potential On-Site Waste Disposal Facility.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
Northeast Plume Pump and Treat. • Continue pump-and-treat operations and environmental surveillance, monitoring, and reporting. • Conduct management and infrastructure surveillance and maintenance. • Continue existing landfill operations and maintenance. • Characterize, treat and dispose of newly-generated waste. • Initiate the transition of the Gaseous Diffusion Plant (in a cold and dark state) from the United States Enrichment Corporation to the Department of Energy, which includes one-time facility improvements and modifications, and surveillance and maintenance until decontamination and decommissioning is completed, such as transition preparation (walk-downs, optimization studies, safety basis documentation), switchyard reconfiguration, and deposit removal design and engineering. • Initiate demolition of the C-410 Complex.	• Complete soil cover and sub-surface remediation of two historic unlined burial grounds. • Initiate design activities associated with the potential the On-Site Waste Disposal Facility. • Continue pump-and-treat operations and environmental surveillance, monitoring, and reporting. • Conduct management and infrastructure surveillance and maintenance. • Continue existing landfill operations and maintenance. • Continue Gaseous Diffusion Plant facility modifications, including switchyard reconfiguration, and maintain Gaseous Diffusion Plant in inactive status. • Initiate treatment of technicium-99 to allow future on-site disposal and reduce worker safety risks. • Initiate removal of uranium deposits within the entire cascade of the Gaseous Diffusion Plant to meet Nuclear Criticality Safety allowing long-term safe storage of the shutdown Gaseous Diffusion Plant. • Finalize Waste Disposal Alternatives Record of Decision. • Index, scan and ship more than 7,000 cubic feet of DOE legacy records and 250,000 drawings to a federal records repository. • Characterize, package, ship, treat and dispose of oils from over 300 capacitors and 67 transformers. • Conduct a Freon treatability study on the over	

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
	eight million pounds of R-114 Freon. • Complete demolition of the C-410 Complex.	

Paducah Contract/Post-Closure Liabilities/Administration (PBS: PA-0102)

Overview

This PBS can be found within the Uranium Enrichment Decontamination and Decommissioning fund appropriation.

This PBS supports a contract liability to provide record searches performed for DOE and the Department of Justice investigations/studies, pending litigation expenses, severance and the administration of post retirement life and medical support.

Paducah Contract/Post-Closure Liabilities/Administration (PBS: PA-0102)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
1,438	**650**	**-$788**
• Continue to provide support to DOE and Department of Justice for all investigations and litigation. • Continue to provide payment into the Paducah pension and post-retirement benefits program to remain in compliance with the Employee Retirement Income Security Act and other applicable laws, and DOE O 350.1 requirements.	• Continue to provide support to DOE and Department of Justice for all investigations and litigation. • Continue to provide payment into the Paducah pension and post-retirement benefits program to remain in compliance with the Employee Retirement Income Security Act and other applicable laws, and DOE O 350.1 requirements.	• Decrease reflects realignment of funds to this new Congressional Control Point. The net decrease is attributable to a reduction in pension and post retirement contribution requirements.

Paducah Community and Regulatory Support (PBS: PA-0103)

Overview

This PBS can be found within the Uranium Enrichment Decontamination and Decommissioning Fund appropriation.

This PBS scope supports: an Agreement-in-Principle grant to the Commonwealth of Kentucky to provide independent oversight of the environmental programs, including surface water, groundwater, air and other environmental monitoring; a Federal Facility Agreement grant with the Commonwealth of Kentucky to assure Federal Facility Agreement conditions and compliance schedules are met in accordance with state, federal, and local guidance, regulations and statutes; and the Kentucky Research Consortium for Energy and Environment grant to develop technical information for decision-making in the Paducah environmental cleanup. This PBS also includes support to the Paducah Citizens Advisory Board for assistance in all public participation activities.

Paducah Community and Regulatory Support (PBS: PA-0103)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
1,725	**1,725**	**0**
• Continue support to the Citizens Advisory Board to assist in the public participation activities required by the Comprehensive Environmental Response, Compensation, and Liability Act. • Continue to ensure requirements are met regarding the grants.	• Continue support to the Citizens Advisory Board to assist in the public participation activities required by the Comprehensive Environmental Response, Compensation, and Liability Act. • Continue to ensure requirements are met regarding the grants.	• No change.

Paducah Construction Projects Summary ($K)

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
15-U-407, On Site Waste Disposal Facility (PA-0040)							
Total Estimate Cost (TEC)	281,986	0	0	0	0	8,486	+8,486
Other Project Costs (OPC)	8,014	0	0	0	0	514	+514
Total Project Cost (TPC) 15-U-407	290,000	0	0	0	0	9,000	+9,000

15-U-407
On Site Waste Disposal Facility- Cell 1
Design and Construction
Paducah, Kentucky
Project is for Design and Construction

1. Summary and Significant Changes

The Comprehensive Environmental Response, Compensation, and Liability Act process ongoing at the Paducah Gaseous Diffusion Plant in Paducah, Kentucky, will result in a decision either to construct and operate an On Site Waste Disposal Facility or to take no action to construct and operate such a facility. References to an On Site Waste Disposal Facility in this document are intended only to reflect the possibility that the Comprehensive Environmental Response, Compensation, and Liability Act process could result in a decision to construct and operate such a facility and should not be interpreted as presupposing the outcome of the Comprehensive Environmental Response, Compensation, and Liability Act process.

The funding reflected in this FY 2015 Congressional Budget Request for the On Site Waste Disposal Facility at the Paducah Gaseous Diffusion Plant in Paducah, Kentucky, is a placeholder pending final approval of the project's Record of Decision (ROD) which is expected in the 4th Quarter of 2014. This project is expected to achieve CD-0 in the 4th Quarter of FY 2014. No TEC funding will be spent until the ROD and subsequent Critical Decision – 1 (CD-1) have been approved. A rough order magnitude (ROM) cost estimate has been developed for this project, and the ROM cost is $110,000,000-$290,000,000.

For the Paducah Gaseous Diffusion Plant, the site cleanup strategy includes high priority groundwater remediation, deactivation and decommissioning of excess facilities, disposition of mixed and low-level waste, and soil remediation. These activities are regulated by the Comprehensive Environmental Response, Compensation, and Liability Act process and the Paducah Federal Facility Agreement between the Department, the Commonwealth of Kentucky, and the United States Environmental Protection Agency which "directs the comprehensive remediation of the Paducah Gaseous Diffusion Plant" with enforceable milestones and mandates regulatory documents.

This project does not include the final cap for Cell 1 of the On Site Waste Disposal Facility. It is anticipated that a separate project data sheet will be developed in the future to place final caps on multiple cells. Subsequent construction of cells related to a potential On Site Waste Disposal Facility would be separate construction projects, each to be managed as separate line-item capital asset projects, including individual sets of project data sheets. The construction of the first cell and necessary site preparations and infrastructure activities would need to be completed in sufficient time to ensure availability of on-site disposal for anticipated environmental remediation and demolition projects.

The current project manager is a Level 1 Federal Project Director and qualifies as a Level 3 Operations Manager.

This Project Data Sheet does include a new start for the budget year FY 2015

This Project Data Sheet is new.

2. Critical Decision (CD) and D&D Schedule

(fiscal quarter or date)

	CD-0	CD-1	Design Complete	CD-2	CD-3	CD-4	D&D Start	D&D Complete
FY 2015 Request	3Q FY2015	3Q FY 2015	FY 2017	FY 2017	FY 2017	FY 2020	N/A	N/A

Note: *All dates are based on current schedules and are subject to change until the baseline is validated and approved. The above dates do not reflect schedule contingency.*

CD-0 – Approve Mission Need
CD-1 – Approve Alternative Selection and Cost Range
CD-2 – Approve Performance Baseline
CD-3 – Approve Start of Construction

CD-4 – Approve Start of Operations or Project Closeout
D&D Start – Start of Demolition & Decontamination (D&D) work
D&D Completion – Completion of D&D work

3. Baseline and Validation Status ($K)

	TEC, Design	TEC, Construction	TEC, Total	OPC, Except D&D	OPC, D&D	OPC, Total	TPC
FY 2015	47,486	234,500	281,986	8,014	0	8,014	290,000

Note: Costs are estimated based on the CD-0 Rough Order of Magnitude Cost Range, $110,000,000-$290,000,000. All numbers are subject to change until the baseline is validated and approved at CD-2.

4. Project Description, Justification, and Scope

Mission Need

The mission need is based on the projected waste volumes identified in the comprehensive Paducah lifecycle scope and the alternative analysis being conducted to determine whether an On Site Waste Disposal Facility could be selected as the remedy. The Comprehensive Environmental Response, Compensation, and Liability Act analysis includes the development of a conceptual design to support the evaluation.

Due to the projected waste volumes identified in the comprehensive Paducah lifecycle scope, it was determined that analysis was necessary, in accordance with Comprehensive Environmental Response, Compensation, and Liability Act and the Paducah Federal Facilities Agreement, to evaluate potential alternatives to address the disposition of those projected waste volumes associated with remediation actions and demolition of Paducah Gaseous Diffusion Plant facilities. The alternatives being evaluated range from no action (required by Comprehensive Environmental Response, Compensation, and Liability Act) to the potential construction and operation of an On Site Waste Disposal Facility. In accordance with the Comprehensive Environmental Response, Compensation, and Liability Act process and the requirements of the Paducah Federal Facilities Agreement, DOE is currently conducting this analysis, including the remedial investigation/feasibility study, remedy development and evaluation, and remedy selection process, to identify the preferred approach for disposition of the projected waste volumes.

An On Site Waste Disposal Facility would be a landfill to provide on-site waste disposal capacity for anticipated demolition debris and environmental remediation waste from the Paducah cleanup projects. This Project Data Sheet addresses a potential On Site Waste Disposal Facility Cell 1 Design and Construction Project.

Scope and Justification

If an On Site Waste Disposal Facility is selected as the remedy, the scope of this project would include the design of an On Site Waste Disposal Facility, currently being evaluated with a disposal capacity up to eight million cubic yards, including support facilities and infrastructure. In the event an On Site Waste Disposal Facility is the selected remedy, the specific line item funding request for FY 2015 would support preliminary design for the On Site Waste Disposal Facility and remedial design site investigation work plan document preparation. The remedial design site investigation field work likely would include, but not be limited to, hydrogeological studies, monitoring well installation, geotechnical field investigation, shear wave velocity testing, wetlands delineation, floodplains assessment and threatened and endangered species study. On Site Waste Disposal Facility Cell 1 Design and Construction Project would include, but would not be limited to, the design and construction of the waste disposal facility and necessary infrastructure. Components of the current conceptual design include geosynthetic liners, leachate collection systems, support facilities, and necessary infrastructure. An On Site Waste Disposal Facility Cell 1 Design and Construction Project would support the initial development of the first cell (estimated capacity of approximately 200,000 cubic yards) of an On Site Waste Disposal Facility (estimated capacity of approximately 8 million cubic yards), if selected as a final remedy, following the final Comprehensive Environmental Response, Compensation, and Liability Act Record of Decision.

An On Site Waste Disposal Facility Cell 1 Design and Construction Project would be developed and conducted in accordance with the project management requirements of the DOE Order 413.3B, Program and Project Management for the Acquisition of Capital Assets, and all appropriate project management requirements would be met throughout project execution.

5. Financial Schedule

(dollars in thousands)

	Appropriations	Obligations	Costs
Total Estimated Cost (TEC)			
Design			
FY 2015	8,486	8,486	8,486
FY 2016	22,000	22,000	22,000
FY 2017	17,000	17,000	17,000
Total, Design	47,486	47,486	47,486
Construction			
FY 2016	2,000	2,000	2,000
FY 2017	41,000	41,000	41,000
FY 2018	38,000	38,000	38,000
FY 2019	68,000	68,000	68,000
FY 2020	85,500	85,500	85,500
Total, Construction	234,500	234,500	234,500
TEC			
FY 2015	8,486	8,486	8,486
FY 2016	24,000	24,000	24,000
FY 2017	58,000	58,000	58,000
FY 2018	38,000	38,000	38,000
FY 2019	68,000	68,000	68,000
FY 2020	85,500	85,500	85,500
Total TEC	281,986	281,986	281,986

Other Project Cost (OPC)			
OPC except D&D			
FY 2015	514	514	514
FY 2016	3,000	3,000	3,000
FY 2017	4,000	4,000	4,000
FY 2018	200	200	200
FY 2019	0	0	0
FY 2020	300	300	300
Total, OPC except D&D	8,014	8,014	8,014
OPC			
FY 2015	514	514	514
FY 2016	3,000	3,000	3,000
FY 2017	4,000	4,000	4,000
FY 2018	200	200	200
FY 2019	0	0	0
FY 2020	300	300	300
Total, OPC	8,014	8,014	8,014
Total Project Cost (TPC)			
FY 2015	9,000	9,000	9,000
FY 2016	27,000	27,000	27,000
FY 2017	62,000	62,000	62,000
FY 2018	38,200	38,200	38,200
FY 2019	68,000	68,000	68,000
FY 2020	85,800	85,800	85,800
Total, TPC	290,000	290,000	290,000

6. Details of Project Cost Estimate

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Total Estimated Cost (TEC)			
Design			
Design	24,384		N/A
Contingency	23,102		N/A
Total Design	47,486		N/A
Construction			
Building & Site Work	116,139		N/A
Contingency	118,361		N/A
Total Construction	234,500		N/A
Total, TEC	281,986		N/A
Contingency, TEC	141,463		N/A
Other Project Cost (OPC)			
OPC except D&D			

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Conceptual Design/Planning	866		N/A
Start-Up	0		N/A
Contingency	3,051		N/A
Other OPC	4,097		N/A
Total, OPC except D&D	8,014		N/A
Total, OPC	8,014		N/A
Contingency, OPC	3,051		N/A
Total, TPC	290,000		N/A
Total, Contingency	144,514		N/A

7. Schedule of Appropriation Requests

Request		Prior Years	FY 2015	Outyears	Total
FY 2015 Request	TEC	0	8,486	273,500	281,986
	OPC	0	514	7,500	8,014
	TPC	0	9,000	281,500	290,000

8. Related Operations and Maintenance Funding Requirements

Security costs for this project are not included in the cost presented. Security costs are funded from a separate appropriation (Defense appropriation for PBS PA-0020). Security costs for this project are nominal, and consequently, are not included in the costs of this data sheet.

Start of Operation or Beneficial Occupancy (fiscal quarter or date)	2020
Expected Useful Life (number of years)	1,000*
Expected Future Start of D&D of this Capital Asset (fiscal quarter)	N/A **

*Based on design life and as modeled/presented in the WDA D2 RI/FS.
**No D&D is planned related to this project.

Construction of the OSWDF Cell 1 has no direct operations, maintenance, and utilities.

(dollars in thousands)

	Annual Costs		Life Cycle Costs	
	Current Total Estimate	Previous Total Estimate	Current Total Estimate	Previous Total Estimate
Operations	$10,000	N/A	$50,000	N/A
Utilities*	0	N/A	0	N/A
Maintenance*	0	N/A	0	N/A
Total, Operations & Maintenance	$10,000	N/A	$50,000	N/A

*Utilities and Maintenance costs are included in the Operations.

NOTE: Operation of Cell 1 is assumed to be three to five years. Five years is utilized for the lifecycle costs. The lifecycle estimate above does not include post-closure activities or long-term surveillance and maintenance.

9. Required D&D Information

Area	Square Feet
N/A*	N/A

*No D&D is planned related to this project.

This project would provide a new capability and would not replace a current capability. Thus, the basis for this project's justification would not be replacing current facilities; accordingly, no existing facilities would be demolished in conjunction with this project.

10. Acquisition Approach

The acquisition approach for the project would be through competitive bids and the use of consent packages, consistent with current Paducah prime contract requirements under FAR 44. An Acquisition Plan for the remaining design efforts and construction phases of the project would be prepared prior to Critical Decision-2/3 following the finalization of the Record of Decision.

Portsmouth

Overview

The Portsmouth Site will support the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and Cold War activities; including environmental cleanup, waste management, depleted uranium conversion, deactivation and decommissioning and long-term stewardship.

Portsmouth will operate the depleted uranium hexafluoride conversion facility. DOE anticipates depleted uranium hexafluoride conversion operations at Portsmouth to continue approximately twenty years.

To complete cleanup, Portsmouth will maintain a safe, secure, and compliant posture; support full-scale deactivation and decommissioning of the Gaseous Diffusion Plant; dispose of all low-level and mixed low-level waste resulting from deactivation and decommissioning activities; dispose of all excess materials; and perform groundwater trichloroethylene source removal.

Direct maintenance and repair at the Portsmouth Site is estimated to be $28,990,000 in FY 2015.

Regulatory Framework

Oversight of cleanup activities at the Portsmouth site is the responsibility of the Ohio Environmental Protection Agency and the United States Environmental Protection Agency - Region V. The program is being conducted in accordance with a State of Ohio Consent Decree and an Environmental Protection Agency Administrative Consent Order. DOE and the Ohio Environmental Protection Agency reached an agreement on the regulatory framework for final decontamination and decommissioning of the facilities and the disposition of project waste under the Comprehensive Environmental Response, Compensation, and Liability Act requirements (although Portsmouth is not on the National Priorities List), and ongoing environmental media cleanup activities under Resource Conservation and Recovery Act (Consent Order and Consent Decree, respectively). The Ohio Environmental Protection Agency issued Directors Final Findings and Orders to formalize the terms and requirements of this agreement. The more detailed process to develop the required cleanup and waste disposition decisions has been described in Remedial Investigation/Feasibility Study Work Plans.

In addition, the site is included in a compliance agreement between the United States Environmental Protection Agency and DOE under the Toxic Substances Control Act.

Contractual Framework

Program planning and management at Portsmouth is conducted through the issuance and execution of contracts to large and small businesses. Portsmouth develops near-term and-long-term planning approaches in order to develop contract strategies and program/project plans at a more detailed level. Selected contractors then execute these plans to complete cleanup on schedule. Current contracts at Portsmouth include:

- The Babcock and Wilcox Conversion Services term cost plus award fee contract for treatment and disposition of Depleted Uranium Hexafluoride, covering the period from 1/03/11 - 1/1/16.
- Fluor - Babcock and Wilcox Portsmouth term cost plus award fee contract for decontamination and decommissioning of uranium gaseous diffusion buildings and legacy soil and groundwater remediation, covering the period 3/29/11 - 3/28/16 with an option to extend though 3/28/21. The five year option has not been exercised.
- Wastren - EnergX contract for site support services covering the period 12/22/09 - 7/25/15. The contract is a term cost plus fixed fee contract with no options. The contractor is a small business.

Highlights of the FY 2015 Budget Request

This FY 2015 Budget Request continues the progress made on the deactivation and decommissioning of the Portsmouth Gaseous Diffusion Plant and the safe operation of the Depleted Uranium Hexafluoride Conversion facility.

The FY 2015 request includes $35,000,000 for the Portsmouth On-Site Waste Disposal Facility. The mission of this project is to construct an on-site landfill for the disposal of waste expected to be generated from the demolition of the Portsmouth Gaseous Diffusion Plant and associated facilities. The $35,000,000 requested for this project includes $28,539,000 for 15-U-408 ($1,423,000for design activities; $27,116,000for construction activities), and $6,461,000 for other project costs funded within PBS PO-0040, Nuclear Facility D&D-Portsmouth.

FY 2015 Key Milestone/Outlook

- (Oct 2014) Initiate potential On-Site Disposal Cell Construction.
- (Sep 2015) Continue Operation /Construction of potential OSWDF. Pending approval of the Record of Decision.

Strategic Management

The key strategies for the Portsmouth site are to continue operations of groundwater treatment facilities in support of installed remedies and to continue disposition of excess uranium materials and remove stored low-level and mixed waste streams contaminated with hazardous or toxic chemicals. Portsmouth will also continue process building equipment removal actions and hazardous material abatement and deactivation activities. In addition, Portsmouth will operate the depleted uranium hexafluoride conversion facility. DOE anticipates the depleted uranium hexafluoride conversion operations to continue for approximately twenty years.

The factor that could have significant impacts on individual projects and may impact the overall cleanup scope, schedule, and costs is identified below:

- DOE is developing the required regulatory cleanup and waste disposition studies and evaluations. The evaluations will be utilized in the decision making process in coordination with the Ohio Environmental Protection Agency, the public, and the local community.

Future decontamination and decommissioning costs will be dependent upon the extent of final environmental contamination, regulatory frameworks, and disposal/recycling options for the decontamination and decommissioning materials and wastes.

The Department plans to continue to maximize the utilization of its excess material assets, including uranium, in order to conduct its cleanup mission. The uranium transfer allows for environmental remediation and decontamination and decommissioning activities at the Gaseous Diffusion Facilities. Consistent with applicable laws, including the United States Enrichment Corporation Privatization Act, DOE has been transferring up to 2,400 metric tons of uranium annually, based on the Secretarial Determination of May 2012. DOE is in the process of conducting an updated market analysis regarding its planned uranium transactions. The specific amount to be transferred in FY 2015 is yet to be determined, but is anticipated to be comparable to past amounts. The actual value of the material is subject to the final amounts transferred quarterly and the market value at the time of the transfer.

The FY 2015 Request is proposing a new control point within the Uranium Enrichment Decontamination and Decommissioning Fund Appropriation in order to better manage requirements for Pension and Community and Regulatory activities.

The funding table below provides a comparable display of the impacted activities and a comparable display will be continued throughout this budget chapter to aid in budget review.

Portsmouth Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
Safeguards and Security						
PO-0020 / Safeguards and Security	16,472	12,500	0	12,500	8,492	-4,008
Non-Defense Environmental Cleanup						
Gaseous Diffusion Plants						
Portsmouth Gaseous Diffusion Plant						
PO-0011X / NM Stabilization and Disposition-Depleted Uranium Hexafluoride Conversion	45,634	49,352	0	49,352	51,517	+2,165
Uranium Enrichment Decontamination and Decommissioning Fund						
Portsmouth						
Portsmouth Gaseous Diffusion Plant						
PO-0040 / Nuclear Facility D&D-Portsmouth	153,337	135,818	0	135,818	160,000	+24,182
Pension and Community and Regulatory Support						
Portsmouth Gaseous Diffusion Plant						
PO-0103 / Portsmouth Contract/Post-Closure Liabilities/Administration	775	775	0	775	775	0
PO-0104 / Portsmouth Community and Regulatory Support	1,219	1,020	0	1,020	1,020	0
Subtotal, Portsmouth Gaseous Diffusion Plant	**1,994**	**1,795**	**0**	**1,795**	**1,795**	**0**
Total, Uranium Enrichment Decontamination and Decommissioning Fund	**155,331**	**137,613**	**0**	**137,613**	**161,795**	**+24,182**
Total, Portsmouth	**217,437**	**199,465**	**0**	**199,465**	**221,804**	**+22,339**

Portsmouth
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup	
Safeguards and Security	
PO-0020 / Safeguards and Security	
• The decrease is due to continued security program efficiencies implemented since the transition of security administration from the United States Enrichment Corporation to DOE.	-4,008
Non-Defense Environmental Cleanup	
Gaseous Diffusion Plants	
Portsmouth Gaseous Diffusion Plant	
PO-0011X / NM Stabilization and Disposition-Depleted Uranium Hexafluoride Conversion	
• Increase is due to the continuing efforts to establish long-term capability/operability of the DUF6 facility. These efforts include increases to labor and costs that are needed to conduct steady state operations with emphasis on plant availability and maximum achievable routine throughput.	+2,165
Uranium Enrichment Decontamination and Decommissioning Fund	
Pension and Community and Regulatory Support	
PO-0103 / Portsmouth Contract/Post-Closure Liabilities/Administration	
• No change.	+0
PO-0104 / Portsmouth Community and Regulatory Support	
• No change.	+0
Portsmouth	
PO-0040 / Nuclear Facility D&D-Portsmouth	
• Increase supports the continued progress on removal of contaminated gas equipment from one of the three process buildings and continued design activities related to the construction of the proposed On-Site Waste Disposal Cell.	+24,182
Total, Portsmouth	**+22,339**

Safeguards and Security (PBS: PO-0020)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The safeguards and security program at the Portsmouth Gaseous Diffusion Plant provides security services to protect nuclear materials, sensitive uranium enrichment technology, equipment, and facilities. This program includes maintaining a security guard force to protect nuclear materials and classified technology/information and complying with cyber security requirements necessary to protect DOE information. The safeguards and security program also supports the Portsmouth decommissioning and decontamination program. Within the safeguards and security program, the Department continues to pursue realignment of sensitive security areas to support accelerated and less costly cleanup of the site.

Safeguards and Security (PBS: PO-0020)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
12,500	**8,492**	**-$4,008**
• Continue implementation of Homeland Security Presidential Directive 12 requirements. • Initiate security activities associated with operation of the existing onsite waste disposal facility, for which a replacement is currently being planned for construction in a location outside the existing security perimeter. • Maintain the appropriate level of safeguards and security using a graded approach for the Portsmouth Gaseous Diffusion Plant. • Provide Physical Protection, Protective Forces, Physical Security Systems, Information Security, Operations Security, Personnel Security, Material Control and Accountability, Program Management, and Cyber Security. • Perform Security optimizations to lower the long-term cost of the security posture for the Portsmouth Gaseous Diffusion Plant.	• Complete initial program for compliance with Homeland Security Presidential Directive 12 requirements. • Continue security activities associated with operation of the existing onsite waste disposal facility, for which a replacement is currently being planned for construction in a location outside the existing security perimeter. • Provide an optimized level of safeguards and security services using a graded approach for the Portsmouth Gaseous Diffusion Plant to include; Physical Security Systems, Protective Forces, Information Security, Operational Security, Personnel Security, Material Control and Accountability, Program Management and Cyber Security.	• The decrease is due to continued security program efficiencies implemented since the transition of security administration from the United States Enrichment Corporation to DOE.

NM Stabilization and Disposition-Depleted Uranium Hexafluoride Conversion (PBS: PO-0011X)

Overview

This PBS is within the Non-Defense Environmental Cleanup appropriation.

This PBS scope includes operating a depleted uranium hexafluoride conversion facility at the Portsmouth Gaseous Diffusion Plant site. The facility converts depleted uranium hexafluoride into a more stable chemical form (depleted uranium oxide) suitable for beneficial reuse or disposition. The depleted uranium oxide and cylinders will initially be stored on-site and ultimately sent to a disposal facility if beneficial reuses are not realized. The hydrogen fluoride co-product will be sold on the commercial market for unrestricted use. The proceeds from the sale of hydrogen fluoride are used to offset project operating costs.

This PBS also includes surveillance and maintenance of all depleted uranium hexafluoride cylinders during conversion of the existing stockpile, which will take approximately twenty years. Completion of these activities will contribute to reducing the footprint and total cleanup of the site.

NM Stabilization and Disposition-Depleted Uranium Hexafluoride Conversion (PBS: PO-0011X)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
49,352	**51,517**	**+$2,165**
• Continue steady state operations of the DUF6 conversion facility with emphasis on plant availability and maintain optimum throughput. • Package converted depleted uranium oxide for beneficial reuse or disposal and store on site. • Conduct cylinder surveillance and maintenance, to keep existing material in a safe and stable condition.	• Continue steady state operations of the DUF6 conversion facility with emphasis on plant availability and maintain optimum throughput. • Package converted depleted uranium oxide for beneficial reuse or disposal and store on site. • Conduct cylinder surveillance and maintenance, to keep existing material in a safe and stable condition.	• Increase is due to the continuing efforts to establish long-term capability/operability of the DUF6 facility. These efforts include increases to labor and costs that are needed to conduct steady state operations with emphasis on plant availability and maximum achievable routine throughput.

Nuclear Facility D&D-Portsmouth (PBS: PO-0040)

Overview

This PBS is within the Uranium Enrichment Decontamination and Decommissioning Fund appropriation.

This PBS scope includes remedial actions due to contamination resulting from the plant's historical uranium enrichment operations, facility decontamination and decommissioning, and surveillance and maintenance activities at the Portsmouth Gaseous Diffusion Plant. The Department also continues to optimize infrastructure costs at the site to focus funding on the cleanup effort.

This PBS also includes the design and construction of a capital project; the potential On-Site Waste Disposal Facility for disposition of the wastes generated from the site-wide cleanup, including wastes generated from the decontamination, decommissioning, and demolition of the Gaseous Diffusion Plant.

Eventual completion of all decontamination and decommissioning activities will contribute to reducing the footprint and total cleanup of the site.

Nuclear Facility D&D-Portsmouth (PBS: PO-0040)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
135,818	**160,000**	**+$24,182**
• Continue removal of building X-326 process equipment. • Perform facility site services, programmatic safety and environmental technical oversight. • Conduct soil and groundwater environmental monitoring and reporting and associated sample collection. • Conduct surveillance and maintenance of DOE facilities to maintain compliance. • Conduct characterization, treatment, and disposition of waste associated with deactivation and decommissioning. • Continue progressing the potential On-Site Waste Disposal Cell through the regulatory process and continue design development.	• Finalize process building Record of Decision. • Complete removal of contaminated process gas equipment from one of the three process buildings. • Complete offsite waste disposition • Perform facility site services, programmatic safety and environmental technical oversight. • Conduct soil and groundwater environmental monitoring and reporting and associated sample collection. • Conduct surveillance and maintenance of DOE facilities to maintain compliance. • Conduct characterization, treatment and disposition of waste associated with deactivation and decommissioning.	• Increase supports the continued progress on removal of contaminated gas equipment from one of the three process buildings and continued design activities related to the construction of the proposed On-Site Waste Disposal Cell.

Nuclear Facility D&D-Portsmouth (PBS: PO-0040)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
• Removal of the high-risk radioactively contaminated equipment and hazardous materials from the uranium processing buildings, continued progress of the On-Site Waste Disposal Facility, and precludes a work force restructuring.	• Continue the design activities including site preparation, large scale soil grading, and infrastructure requirements to support the construction of the proposed On-Site Waste Disposal Cell.	

Portsmouth Contract/Post-Closure Liabilities/Administration (PBS: PO-0103)

Overview

This PBS can be found within the Uranium Enrichment Decontamination and Decommissioning fund appropriation.

This PBS supports a contract liability to provide record searches performed for DOE and the Department of Justice investigations/studies, pending litigation expenses, severance and the administration of post retirement life and medical support.

Portsmouth Contract/Post-Closure Liabilities/Administration (PBS: PO-0103)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
775	**775**	**0**
• Continue to provide defense against legal claims filed against the Government and its contractors. • Continue record searches in support of legal claims, DOE and Department of Justice investigations/studies, Freedom of Information Act requests, and requests from both state and Federal regulatory and elected officials. • Continue to provide payment into the Portsmouth pension program to remain in compliance with the Employee Retirement Income Security Act, DOE 350.1 and other applicable laws.	• Continue to provide defense against legal claims filed against the Government and its contractors. • Continue record searches in support of legal claims, DOE and Department of Justice investigations/studies, Freedom of Information Act requests, and requests from both state and Federal regulatory and elected officials. • Continue to provide payment into the Portsmouth pension program to remain in compliance with the Employee Retirement Income Security Act, DOE 350.1 and other applicable laws.	• No change.

Portsmouth Community and Regulatory Support (PBS: PO-0104)

Overview

This PBS can be found within the Uranium Enrichment Decontamination and Decommissioning fund appropriation.

This PBS supports activities to promote active involvement with the state and local stakeholders in the Environmental Management planning and decision-making processes and provides the opportunity for meaningful involvement in managing the cleanup and closure of the site.

Portsmouth Community and Regulatory Support (PBS: PO-0104)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
1,020	**1,020**	**0**
• Provide support for oversight activities of the Ohio Environmental Protection Agency. • Support the designated Site Specific Advisory Board.	• Support oversight activities of the Ohio Environmental Protection Agency. • Support the designated Site Specific Advisory Board.	• No change.

Portsmouth Capital Summary ($K)

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Current
Capital Operating Expenses Summary (including (Major Items of Equipment (MIE))							
Plant Projects (GPP and IGPP) (<$10M)	26,641	0	21,236	5,406	5,406	0	-5,406
Total, Capital Operating Expenses	**26,641**	**0**	**21,236**	**5,406**	**5,406**	**0**	**-5,406**
Plant Projects (GPP and IGPP) (Total Estimated Cost (TEC) <$10M)							
Portsmouth							
Total Plant Projects (GPP/IGPP) (Total Estimated Cost (TEC) <$5M)	11,242	0	10,219	1,024	1,024	0	-1,024
J5420 / 1708 Security Optimization	6,568	0	2,589	3,979	3,979	0	-3,979
kV Distribution Upgrades	8,831	0	8,428	403	403	0	-403
Total, Portsmouth	**26,641**	**0**	**21,236**	**5,406**	**5,406**	**0**	**-5,406**
Total, Plant Projects (GPP and IGPP) (Total Estimated (TEC) <$10M	**26,641**	**0**	**21,236**	**5,406**	**5,406**	**0**	**-5,406**
Total, Capital Summary	**26,641**	**0**	**21,236**	**5,406**	**5,406**	**0**	**-5,406**

Portsmouth Construction Projects Summary ($K)

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
15-U-408, On Site Waste Disposal Facility (PO-0040)							
Total Estimate Cost (TEC)	287,326	0	0	0	0	28,539	+23,539
Other Project Costs (OPC)	22,674	0	0	0	0	6,461	+6,461
Total Project Cost (TPC) 15-U-408	310,000	0	0	0	0	35,000	+35,000

15-U-408
On Site Waste Disposal Facility - Cell 1 Liner Construction
Portsmouth, Ohio
Project is for Design and Construction

1. Summary and Significant Changes

The Comprehensive Environmental Response, Compensation, and Liability Act process ongoing at the Portsmouth Gaseous Diffusion Plant in Piketon, Ohio, will result in a decision either to construct and operate an On Site Waste Disposal Facility or to take no action to construct and operate such a facility. References to an On Site Waste Disposal Facility in this document are intended only to reflect the possibility that the Comprehensive Environmental Response, Compensation, and Liability Act process could result in a decision to construct and operate such a facility and should not be interpreted as presupposing the outcome of the Comprehensive Environmental Response, Compensation, and Liability Act process.

The funding reflected in this FY 2015 Congressional Budget Request for the On Site Waste Disposal Facility at the Portsmouth Gaseous Diffusion Plant in Piketon, Ohio, is a placeholder pending final approval of the project's Record of Decision (ROD) which is expected in the 4th Quarter of 2014. No TEC funding will be spent until the ROD and subsequent Critical Decision-1 (CD-1) have been approved. A rough order magnitude (ROM) cost estimate has been developed for this project, and the ROM cost range is $160,000,000 to $310,000,000.

This project does not include the final cap for Cell 1 of the On Site Waste Disposal Facility. It is anticipated that a separate project data sheet will be developed in the future to place final caps on multiple cells. The On Site Waste Disposal Facility is a major component of the Portsmouth Gaseous Diffusion Plant Decontamination and Decommissioning Project.

Construction of the On Site Waste Disposal Facility is contingent upon a Comprehensive Environmental Response, Compensation and Liability Act Site-Wide Waste Disposition Record of Decision being issued to select an on-site disposal facility as an approved component of the Portsmouth Gaseous Diffusion Plant Decontamination and Decommissioning Project. A preferred siting location of the On Site Waste Disposal Facility has been identified in order to support an evaluation of alternatives as part of the Site-Wide Waste Disposition Remedial Investigation/Feasibility Study as per agreement with the Ohio Environmental Protection Agency. At the time of approval of the Record of Decision and Critical Decision-2, this Project Data Sheet will be updated if the on-site waste disposition alternative is selected.

The Total Project Cost estimate of the Cell 1 Liner is preliminary pending Record of Decision completion and Life Cycle Baseline independent validation.

A Certified Level III Federal Project Director has been assigned to the project.

This Project Data Sheet does include a new start for the budget year FY 2015.

This Project Data Sheet is new.

2. Critical Decision (CD) and D&D Schedule

The table below provides the preliminary schedule for Critical Decisions and major milestones for the Cell 1 Liner Project.

(fiscal quarter or date)

	CD-0	CD-1	Design Complete	CD-2	CD-3	CD-4	D&D Start	D&D Complete
FY 2015 Request	4Q FY2014	2Q FY2015	3Q FY2015	3Q FY2015	3Q FY2015	2Q FY2019	N/A	N/A

Note: This project is pre-Critical Decision-2, and the schedule is preliminary pending independent baseline validation. Early site preparation milestones which request the use of Critical Decision-3A funds are identified in the next table.

CD-0 – Approve Mission Need

CD-1 – Approve Alternative Selection and Cost Range
CD-2 – Approve Performance Baseline
CD-3 – Approve Start of Construction
CD-4 – Approve Start of Operations or Project Closeout
D&D Start – Start of Demolition & Decontamination (D&D) work
D&D Completion – Completion of D&D work

(Fiscal quarter or date)

CD-3A Milestones	CD-3A	Long Lead Procurement	Site Preparation Complete	Safety / Security Fencing Complete
FY 2015 Request	1Q FY2015	N/A	3Q FY2015	3Q FY2015

Note: Critical Decision-3A has been proposed to allow for site preparation activities necessary prior to Critical Decision-*2/3 approval.*

3. Baseline and Validation Status ($K)

	TEC, Design	TEC, Construction	TEC, Total	OPC, Except D&D	OPC, D&D	OPC, Total	TPC
FY 2015	10,819	276,507	287,326	22,674	0	22,674	310,000

Note: Costs are estimated based on, a CD-0 Rough Order of Magnitude Cost Range, $160,000,000 - $310,000,000. All numbers are subject to change until the baseline is validated and approved at CD-2.

4. Project Description, Justification, and Scope

Mission Need

The mission need of this project will be established by the approval of Mission Need (CD-0) for the On Site Waste Disposal Facility Cell 1 Liner Project, anticipated in the 4th quarter of FY 2014. The Ohio Environmental Protection Agency and the DOE have entered into a formal agreement regarding the decision-making process for the Portsmouth Gaseous Diffusion Plant Decontamination and Decommissioning Project and for the associated waste management. The terms of the agreement are contained in the April 13, 2010, Director's Final Findings and Orders for Removal Action and Remedial Investigation and Feasibility Study and Remedial Design and Remedial Action, including the July 16, 2012, Modification thereto.

An estimated 1,500,000 cubic yards of building/structure waste from demolishing the buildings and up to an estimated 710,000 cubic yards of non-decontamination and decommissioning waste are anticipated to be generated from the site's remaining environmental cleanup activities. Evaluations are underway to develop waste acceptance criteria that meet the requirements of the Director's Final Findings and Orders, as well as requirements set forth in DOE Order 435.1, Radioactive Waste Management. This waste disposition response action provides a permanent solution for waste generated by the cleanup of Portsmouth ensuring capacity for waste expected to be generated from the Portsmouth Decontamination and Decommissioning Project that is protective of human health, safety and the environment. Additionally, this action is determined through a feasibility study conducted under the Director's Final Findings and Orders to be the best value to the government in that it provides a cost-effective and implementable solution to the waste disposal needs facing Portsmouth Decontamination and Decommissioning Project.

Scope and Justification

The Cell 1 Liner Project will complete the final design and construction of the Cell 1 Liner including all necessary preparations, support structures, and procured equipment with anticipated completion in 2019.

Specifically for 2015, final design will be completed for the Cell 1 Liner and associated work scope, and field work will begin on: site preparation; large scale grading involving cut and fill of soil and shale; installation of the On Site Waste Disposal Facility infrastructure including service roads, power and raw water supplies, fencing, lay-down and borrow areas, and an environmental monitoring system; installation of a rail transfer area; and the installation of storage and personnel support trailers

Site preparation activities are intended to be initiated using Critical Decision-3A approval for construction spending in advance of Critical Decision-2/3 approval as identified in DOE O 413.3B.

5. Financial Schedule ($K)

(dollars in thousands)

	Appropriations	Obligations	Costs
Total Estimated Cost (TEC)			
Design			
FY 2015	1,423	1,423	1,423
FY 2016	2,600	2,600	2,600
FY 2017	2,796	2,796	2,796
FY 2018	3,000	3,000	3,000
FY 2019	1,000	1,000	1,000
Total, Design	10,819	10,819	10,819
Construction			
FY 2015	27,116	27,116	27,116
FY 2016	61,106	61,106	61,106
FY 2017	63,487	63,487	63,487
FY 2018	73,725	73,725	73,725
FY 2019	51,073	51,073	51,073
Total, Construction	276,507	276,507	276,507
TEC			
FY 2015	28,539	28,539	28,539
FY 2016	63,706	63,706	63,706
FY 2017	66,283	66,283	66,283
FY 2018	76,725	76,725	76,725
FY 2019	52,073	52,073	52,073
Total, TEC	287,326	287,326	287,326
Other Project Cost (OPC)			
OPC except D&D			
FY 2015	6,461	6,461	6,461
FY 2016	5,574	5,574	5,574
FY 2017	5,860	5,860	5,860
FY 2018	2,369	2,369	2,369
FY 2019	2,410	2,410	2,410
Total, OPC except D&D	22,674	22,674	22,674
OPC			
FY 2015	6,461	6,461	6,461
FY 2016	5,574	5,574	5,574
FY 2017	5,860	5,860	5,860
FY 2018	2,369	2,369	2,369
FY 2019	2,410	2,410	2,410
Total, OPC	22,674	22,674	22,674
Total Project Cost (TPC)			
FY 2015	35,000	35,000	35,000

(dollars in thousands)

	Appropriations	Obligations	Costs
FY 2016	69,280	69,280	69,280
FY 2017	72,143	72,143	72,143
FY 2018	79,094	79,094	79,094
FY 2019	54,483	54,483	54,483
Total, TPC	310,000	310,000	310,000

Note: These values represent preliminary estimates based on data currently available. The upcoming baseline validation process will result in finalized TEC/TPC values

6. Details of Project Cost Estimate

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Total Estimated Cost (TEC)			
Design			
Design	115		N/A
Title III Support	9,396		
Contingency	1,308		N/A
Total Design	10,819		N/A
Construction			
Building & Site Work	132,624		N/A
Contingency	143,883		N/A
Total Construction	276,507		N/A
Total, TEC	287,326		N/A
Contingency, TEC	145,191		N/A
Other Project Cost (OPC)			
OPC except D&D			
Conceptual Planning/Design	701		N/A
Start-Up	1,657		N/A
Contingency	4,809		N/A
Other OPC	15,507		N/A
Total, OPC except D&D	22,674		N/A
Total, OPC	22,674		N/A
Contingency, OPC	4,809		N/A
Total, TPC	310,000		N/A
Total, Contingency	150,000		N/A

7. Schedule of Appropriation Requests ($K)

Request Year		FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Out years	Total
FY 2015	TEC	28,539	63,706	66,283	76,725	52,073	0	287,326
	OPC	6,461	5,574	5,860	2,369	2,410	0	22,674
	TPC	35,000	69,280	72,143	79,094	54,483	0	310,000

Note: These values represent estimates based on data currently available. The upcoming baseline validation process will result in finalized TEC/TPC values.

8. Related Operations and Maintenance Funding Requirements

Nominal activities related to site services including safeguards, security, and emergency services are not included in this Project Data Sheet as they are already provided for under different appropriations (Defense).

Start of Operation or Beneficial Occupancy (fiscal quarter or date)	FY2019
Expected Useful Life (number of years)	1,000 years *
Expected Future Start of D&D of this Capital Asset (fiscal quarter)	N/A **

*The waste placement operations for Cell 1 are projected to take three years. Useful life is 1,000 years as modeled and presented in the Waste Disposition Remedial Action/Feasibility Study.

**No D&D is planned related to this project.

(dollars in thousands, $K)

	Annual Costs		Life Cycle Costs	
	Current Total Estimate	Previous Total Estimate	Current Total Estimate	Previous Total Estimate
Operations	5,490	N/A	19,098	N/A
Utilities	154	N/A	535	N/A
Maintenance	1,224	N/A	4,416	N/A
Total, Operations & Maintenance	6,868	N/A	24,049	N/A

Note: These values represent preliminary estimates for the operations associated with waste placement, utilities, and maintenance only. Post-closure and long-term stewardship activities are not included within this table or anywhere else on this Project Data Sheet.

9. Required D&D Information

Area	Square Feet
N/A	N/A

This project is providing new capability and is not replacing a current capability; thus, this project was not justified on the basis of replacing current facilities.

10. Acquisition Approach

The acquisition approach for the project will be to have the prime contractor execute the work through subcontracting mechanisms with an emphasis on fixed price through competitive bids and the use of consent packages, consistent with current Portsmouth Decontamination and Decommissioning prime contract requirements under FAR 44. Title III design scope is planned to be, in part, subcontracted through a competitively-awarded contract with an Architectural and Engineering firm. This Project Data Sheet is submitted as part of the FY 2015 budget request process, specifically pertaining to UED&D Fund.

Richland

Overview

The cleanup of the Richland Site will support the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and Cold War activities. The Richland Operations Office manages cleanup of the Hanford Site, with the exception of the work managed by the Office of River Protection and the Pacific Northwest National Laboratory (managed by the Office of Science, Pacific Northwest Site Office).

The Hanford Site was established during World War II to produce plutonium for the nation's nuclear weapons. The Hanford mission is now primarily site cleanup and environmental restoration to protect the Columbia River.

The legacy of Hanford's 40 years of nuclear weapons production for the nation's defense includes enormous quantities of spent (used) nuclear fuel, leftover plutonium in various forms, buried waste, contaminated soil and groundwater, and contaminated buildings that must undergo cleanup and be torn down. Forty percent of the approximately one billion curies of human-made radioactivity that exist across the nuclear weapons complex reside at Hanford and must be dealt with to protect human health and the environment. Continued remediation of the waste sites and demolition of old facilities is required to prevent contamination of the Columbia River due to contaminants leaching from the soils into the groundwater.

The Department is working aggressively to reduce the footprint at the Richland Site. The cleanup momentum over the past several years has been and continues to be focused on completing cleanup along the Columbia River Corridor and transitioning the Central Plateau of the Hanford Site to a modern, protective waste management operation—driving down the risks to workers, the community, and the environment. Maintenance of this cleanup momentum will lead to approximately 90 percent footprint reduction by the end of 2015.

Direct maintenance and repair at the Richland site is estimated to be $48,150,000.

Highlights of the FY 2015 Budget Request

Richland's FY 2015 budget request represents planned efforts for continued achievement of important cleanup progress required by the Tri-Party Agreement and as guided by Richland's 2015 Cleanup Vision. In summary, the Richland budget request is designed to maintain Richland safe operations, and Hanford site-wide services, as well as, complete a majority of the River Corridor cleanup, with the exception of the 618-11 burial grounds, Building 324 and its associated waste site, and the 100 K Area. Cleanup work is accomplished while maintaining safe and compliant waste management, decontamination and decommissioning, and groundwater capabilities in the Central Plateau.

The FY 2015 request includes $31,634,000 for the K West (KW) Basin Sludge Treatment Project. The mission of this project is to transfer the KW Basin sludges from the existing engineered containers in the Basin to the Sludge Transfer and Storage Containers for transport to interim storage in the Central Plateau away from the Columbia River. Within the $31,634,000 requested for this project, $26,290,000 supports construction activities and $5,344,000 supports other project costs, funded within PBS RL-0012, SNF Stabilization and Disposition.

FY 2015 Key Milestones/Outlook

- (Mar 2015) M-016-149; Complete 100-IU-2/6 interim response actions for thirty-six 600 Area waste sites.
- (Mar 2015) M-016-163; Complete interim response actions (excluding backfill and re-vegetation) for 58 100-N Area waste sites
- (Jun 2015) M-091-03I, Submit Annual Revision of Transuranic Mixed and Mixed Low Level Waste Project Management Plan to Ecology
- (Sep 2015) M-094-10; Complete disposition of 300 Area surplus facilities (excluding 324 Building and ancillary buildings)

Regulatory Framework

The U. S. Department of Energy, the U. S. Environmental Protection Agency, and the State of Washington Department of Ecology signed a comprehensive cleanup and compliance agreement on May 15, 1989. The Hanford Federal Facility Agreement and Consent Order, or Tri-Party Agreement, is an agreement for achieving compliance with the Comprehensive Environmental Response, Compensation, and Liability Act remedial action provisions and with the Resource Conservation and Recovery Act treatment, storage, and disposal unit regulations and corrective action provisions. In October 2010, the Department of Energy and the Washington State Department of Ecology reached an agreement on revised timetables under the Tri-Party Agreement and a Consent Decree filed in the federal district court for cleanup on the Hanford Site. Tri-Party Agreement milestones have been updated in accordance with the Consent Decree.

Contractual Framework

Program planning and management at Richland is conducted through the issuance and execution of contracts to large and small businesses. Richland develops near- and long-term planning approaches in order to develop contract strategies and program/project plans at a more detailed level. Selected contractors then execute these plans to complete cleanup on schedule. Current contracts at Richland include:

- Washington Closure Hanford, LLC, for cleanup and closure of the River Corridor, a cost plus incentive completion contract. The contract was awarded with an expected period of performance from March 23, 2005 to September 30, 2015. The contract is in the process of being extended due to changed conditions; however, the expected end date has yet to be determined;
- CH2M Hill Plateau Remediation Company, a cost plus award fee term contract for cleanup of the Hanford Central Plateau with a base period of performance from October 1, 2008 through September 30, 2013, with contract option to extend through September 30, 2018. The 5 year option period of October 1, 2013- September 30, 2018 has been exercised; and the
- Mission Support Alliance, LLC, contract with a base period of performance from May 26, 2009 through May 25, 2014, with one 3-year option plus one 2-year option. The Mission Support Alliance first option has been exercised for the period of May 26, 2014- May 27, 2017. That cost plus award fee term contract has an additional option of May 25, 2017 – May 25, 2019 remaining on contract.

Strategic Management

The Hanford 2015 Vision calls for eliminating hazards near the Columbia River by cleaning up most of the River corridor, treating contaminated groundwater near the Columbia River, and preparing for the demolition of the site's main plutonium production facility, the Plutonium Finishing Plant. The work will reduce the active cleanup footprint to 75 square miles in the center of the site and reduce overhead costs.

The Hanford mission is also guided by an agreement established on May 15, 1989. The Hanford Federal Facility Agreement and Consent Order, known as the Tri-Party Agreement, is a cleanup and compliance agreement signed by DOE, the Environmental Protection Agency and the Washington State Department of Ecology. It is a framework for implementing many of the environmental regulations that apply to Hanford. The agreement establishes the milestones for achieving compliance with Comprehensive Environmental Response, Compensation, and Liability Act remedial action provisions and with Resource Conservation and Recovery Act treatment, storage, and disposal unit regulations and corrective action provisions. More specifically, the Tri-Party Agreement includes but is not limited to (1) cleanup commitments, (2) agency cleanup responsibilities, and (3) enforceable milestones to achieve regulatory compliance and remediation.

Richland
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
Hanford Site						
Central Plateau Remediation						
RL-0011 / NM Stabilization and Disposition-PFP	160,056	142,670	0	142,670	168,228	+25,558
RL-0012 / SNF Stabilization and Disposition	89,506	98,369	0	98,369	103,067	+4,698
RL-0013C / Solid Waste Stabilization and Disposition- 2035	118,480	130,126	0	130,126	112,371	-17,755
RL-0030 / Soil and Water Remediation-Groundwater/Vadose Zone – 2035	134,879	141,500	0	141,500	116,916	-24,584
Subtotal, Central Plateau Remediation	**502,921**	**512,665**	**0**	**512,665**	**500,582**	**-12,083**
Richland Community and Regulatory Support						
RL-0100 / Richland Community and Regulatory Support	17,969	19,701	0	19,701	14,701	-5,000
River Corridor and Other Cleanup Operations						
RL-0040 / Nuclear Facility D&D-Remainder of Hanford - 2035	61,943	70,992	0	70,992	65,922	-5,070
RL-0041 / Nuclear Facility D&D-River Corridor Closure Project	294,264	337,642	0	337,642	266,866	-70,776
Subtotal, River Corridor and Other Cleanup Operations	**356,207**	**408,634**	**0**	**408,634**	**332,788**	**-75,846**
Total, Hanford Site	**877,097**	**941,000**	**0**	**941,000**	**848,071**	**-92,929**
Safeguards and Security						
RL-0020 / Safeguards and Security	63,668	69,078	0	69,078	63,668	-5,410
Total, Defense Environmental Cleanup	**940,765**	**1,010,078**	**0**	**1,010,078**	**911,739**	**-98,339**
Non-Defense Environmental Cleanup						
Fast Flux Test Reactor Facility D&D						
Fast Flux Test Reactor Facility D&D						
RL-0042 / Nuclear Facility D&D-Fast Flux Test Facility Project	2,562	2,542	0	2,542	2,562	+20
Total, Richland	**943,327**	**1,012,620**	**0**	**1,012,620**	**914,301**	**-98,319**

Richland
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup	
Hanford Site	
Central Plateau Remediation	
RL-0011 / NM Stabilization and Disposition-PFP	
• The increase supports deactivation and decommissioning activities associated with preparation for final demolition of the Plutonium Finishing Plant facilities.	+25,558
RL-0012 / SNF Stabilization and Disposition	
• The increase reflects additional support for KW Basin extended operations and maintenance during equipment installation, testing and operations readiness activities to continue progress in removing contaminated sludge off of the river to a safe storage facility.	+4,698
RL-0013C / Solid Waste Stabilization and Disposition- 2035	
• The decrease reflects the use of the more efficient 200 West groundwater treatment system to treat liquid effluent from the Liquid Effluent Retention Facility and the reduction to the TRU Retrieval Program support functions.	-17,755
RL-0030 / Soil and Water Remediation-Groundwater/Vadose Zone - 2035	
• Decrease reflects changes in the infrastructure support services contribution to this PBS.	-24,584
Richland Community and Regulatory Support	
RL-0100 / Richland Community and Regulatory Support	
• The decrease reflects efficiencies in discretionary support activities.	-5,000
River Corridor and Other Cleanup Operations	
RL-0040 / Nuclear Facility D&D-Remainder of Hanford - 2035	
• The FY 2015 decrease reflects the completion of infrastructure repairs, upgrades, and maintenance from funds provided in the FY 2014 Omnibus.	-5,070
RL-0041 / Nuclear Facility D&D-River Corridor Closure Project	
• The decrease reflects completion of the majority of planned facility deactivation and decommissioning and waste site remediation by the River Corridor Closure Contractor. Also reflects schedule and technology development changes to 1) the high risk 618-10 burial ground remediation; 2) the highly radioactive 300-296 waste site beneath the 324 Building; 3) the high-risk 618-11 burial ground adjacent to an operating commercial nuclear reactor.	-70,776

	FY 2015 vs FY 2014 Enacted
Safeguards and Security	
RL-0020 / Safeguards and Security	
• The decrease is the result of applying risk-management prioritization to site security services to optimize efficiencies in: site access operations (barricades and badge issuance), personnel security clearances, cyber security maintenance and testing, nuclear materials safeguards monitoring, and protective force staffing and training.	-5,410
Non-Defense Environmental Cleanup	
Fast Flux Test Reactor Facility D&D	
RL-0042 / Nuclear Facility D&D-Fast Flux Test Facility Project	
• No significant change.	+20
Total, Richland	**-98,319**

NM Stabilization and Disposition-PFP (PBS: RL-0011)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The Plutonium Finishing Plant complex consists of several buildings that were used for defense production of plutonium nitrates, oxides and metal from 1950 through early 1989. The bulk of the plutonium bearing materials at the Plutonium Finishing Plant were stored in vaults. This PBS implements actions to package and ship special nuclear materials and fuels to storage facilities; cleanout facilities and demolish them to slab-on-grade; and transition the below grade structures to PBS RL-0040, Nuclear Facility Decommissioning & Decontamination - Remainder of Hanford. These actions can be grouped in the following key categories: 1) stabilization, packaging and shipment of the special nuclear materials and residues from the Plutonium Finishing Plant complex; 2) interim storage of special nuclear materials; 3) maintaining the facilities in a safe and secure manner until the completion of demolition; and 4) cleanout and demolition of facilities.

NM Stabilization and Disposition-PFP (PBS: RL-0011)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
142,670	**168,228**	**+$25,558**
• Provide site-wide services for day-to-day operations of general utilities, fire department, and analytical services. Site-wide services are prorated across the PBS's. • Maintain Plutonium Finishing Plant nuclear safety; maintain, manage and administer radiological control, fire protection, occupational safety and health, and the training program. • Provide administration and direction of Plutonium Finishing Plant support, baseline and project control, conduct of operations, facility property administration, maintenance of policies and procedures, occurrence reporting, quality assurance support, management assessment and corrective action development, regulatory compliance monitoring; performance assessment support; and records management. • Initiate deactivation activities to include removal	• Provide site-wide services for day-to-day operations of general utilities, fire department and analytical services. Site-wide services are prorated across the PBS's. • Provide safety services for industrial, radiological and nuclear Plutonium Finishing Plant facilities/structures and systems including the safety systems. • Support deactivation and decommissioning activities for the major Plutonium Finishing Plant facilities to achieve ready-for-demolition status. Major facilities include: 234-5Z (Plutonium Conversion Facility), 291-Z (Exhaust Building), Facility), 243-Z (Low Level Waste Treatment Facility) and 242-Z (Waste Treatment Facility). Activities include deactivation, decontamination and removal of gloveboxes and process and support systems (i.e., criticality, HVAC, Fire	• The increase supports deactivation and decommissioning activities associated with preparation for final demolition of the Plutonium Finishing Plant facilities.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
of gloveboxes from 234-5Z, 236-Z, 242-Z and other facilities in the Plutonium Finishing Plant complex. • Initiate decontamination and decommission the 234-5Z Plutonium Finishing Plant, 242-A Waste Treatment Facility and 236-Z Plutonium Reclamation Facility and other facilities in the Plutonium Finishing Plant complex. • Continue to deactivate and prepare for dismantlement of the above grade portions of the 234-5Z, 243-Z and other facilities in the Plutonium Finishing Plant complex.	Protection) and equipment as needed to prepare facilities for demolition. Funding also supports Plutonium Reclamation Facility Canyon equipment removal and cleanout of the Plutonium Reclamation Facility Canyon. • Accomplish necessary program management and cross cutting activities to support decontamination and decommissioning field teams. • Continue demolition of ancillary facilities at the nuclear Plutonium Finishing Plant.	

SNF Stabilization and Disposition (PBS: RL-0012)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This PBS scope includes the stabilization, removal, and shipment of nuclear materials including spent (used) nuclear fuel and radioactively contaminated sludge from the K Basins. Waste to be removed includes 27 cubic meters of radioactively contaminated sludge that currently resides in engineered containers in the K-West basin. This PBS currently supports the removal of the sludge from the K-West Basin for interim storage on the Central Plateau. After removal of sludge from the K-West Basin, PBS RL-0041 will disposition the K-West Basin and other K Basin Closure Project-related facilities, to achieve footprint reduction.

This PBS also includes the design, procurement, construction, testing, and commissioning of an integrated set of process/systems to remove radioactive sludge currently stored in the KW Basin. The Sludge Treatment Project includes line item 15-D-401 for the design and construction of the Engineered Retrieval and Transfer System. The FY 2015 request includes $31,634,000 for the K West (KW) Basin Sludge Treatment Project. The overall Sludge Treatment Project recommended a two-phase retrieval, storage, and packaging strategy. Phase 1 is the retrieval and transfer of the sludge material now consolidated in the engineered containers in the KW Basin. The consolidated sludge originated from previous recovery campaigns and will be retrieved and transported to T Plant for temporary storage—that is, removed from the Columbia River Corridor and transferred to the Central Plateau. The project has completed the final design of the sludge handling and supporting equipment. Early procurement and construction of the Modified KW Basin Annex is underway. Operations of the containerized sludge transfer system are schedule to begin in the fourth quarter of FY 2016.

SNF Stabilization and Disposition (PBS: RL-0012)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
98,369	**103,067**	**+$4,698**
• Provide site-wide services of day-to-day operations of general utilities, fire department, and analytical services. • Operate and maintain K-West Basin and associated structures in a safe and compliant manner and support required surveillance and maintenance activities. • Continue construction of KW Basin Modified Annex. • Initiate K West Basin facility modifications to prepare for installation of sludge removal system. • Initiate procurement of long lead equipment for	• Provide site-wide services of day-to-day operations of general utilities, fire department, and analytical services. • Provide operation and maintenance support to maintain the K West Basin, CAT 2 nuclear facility, in a safe and compliant manner. Funding also supports required surveillance and maintenance activities. • Complete construction of KW Basin Modified Annex. • Continue K West Basin facility modifications to prepare for installation of sludge removal system.	• The increase reflects additional support for KW Basin extended operations and maintenance during equipment installation, testing and operations readiness activities to continue progress in removing contaminated sludge off of the river to a safe storage facility.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
sludge removal. • Complete sludge removal system performance demonstration. • Complete design for T Plant modifications necessary to receive and store sludge.	• Continue procurement of long lead equipment for sludge removal. • Prepare for cold commissioning of sludge removal system. • Initiate T Plant modifications necessary to receive and store sludge.	

Solid Waste Stabilization and Disposition (PBS: RL-0013C)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The scope of this PBS includes storage of irradiated nuclear fuel, transuranic waste, mixed low-level waste, and low-level waste generated at the Hanford Site and other DOE and Department of Defense facilities. This PBS also includes packaging of EM legacy and non-legacy irradiated nuclear fuel and storage in the Canister Storage Building or 200 Area Interim Storage Area. In addition, 1,936 cesium and strontium capsules in wet storage in the Waste Encapsulation and Storage Facility will be transferred to dry storage, and retrieval of contact- and remote-handled suspect transuranic waste in the low-level burial grounds will also be performed. About 24,000 cubic meters of suspect transuranic waste is to be processed and an estimated 10,000 cubic meters shipped to the Waste Isolation Pilot Plant. About 51,000 cubic meters of mixed low-level waste will be treated and disposed in the mixed waste trenches or other facilities. Over 200 de-fueled naval reactor compartments will be disposed of in a dedicated trench and about 130,000 cubic meters of low-level waste will be disposed through site closure.

Solid Waste Stabilization and Disposition- 2035 (PBS: RL-0013C)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
130,126	**112,371**	**-$17,755**
• Provide site-wide services for day-to-day operations of general utilities, fire department, and analytical services; operations necessary to support safe and compliant interim storage of Irradiated Nuclear Fuel, which include operating and maintaining the Canister Storage Building and the 200 Area Interim Storage Area facilities, associated structures, operating systems, equipment and monitoring systems. Site-wide services are prorated across the PBS's. • Support interim storage of cesium and strontium capsules at the Waste Encapsulation and Storage Facility. • Maintain the T-Plant, the Integrated Disposal Facility, the Waste Receiving and Processing Facility, and the Central Waste Complex in safe and compliant conditions. • Treat and dispose liquid wastes from the	• Provide site-wide services for day-to-day operations of general utilities, fire department, and analytical services; operations necessary to support safe and compliant interim storage of Irradiated Nuclear Fuel, which include operating and maintaining the Canister Storage Building and the 200 Area Interim Storage Area facilities, associated structures, operating systems, equipment and monitoring systems. Site-wide services are prorated across the PBS's. • Support safe storage of 1,936 cesium and strontium capsules in the Waste Encapsulation and Storage Facility. • Maintain T Plant Complex in a safe, compliant, and cost-effective manner for acceptance/ storage of low-level waste, mixed low-level waste, and TRU waste. Provides the operations necessary to support K-Basin sludge storage.	• The decrease reflects the use of the more efficient 200 West groundwater treatment system to treat liquid effluent from the Liquid Effluent Retention Facility and the reduction to the TRU Retrieval Program support functions.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
generators and dispose of treated liquid effluents from the 200 Area Liquid Effluent Facility. • Provide waste acceptance services, interface with regulators, and project management, risk management, planning, and performance reporting. • Provide administration and coordination of programs such as Transportation and Packaging, Emergency Preparedness, Quality Assurance, Corrective Action Management, Safety Basis development and implementation, and Criticality and Nuclear Safety programs. • Maintain a waste management program to support all Hanford projects and operations and provide base operations for solid waste activities.	• Provide safe operations and upgrades to treat Hanford site effluents. Support ongoing site cleanup activities including: groundwater remediation and radioactive waste tank volume reduction. • Provide core project management staff for waste management operations, liquid effluents, cesium/strontium capsules, and irradiated nuclear fuel. • Provide operations of the Interim Disposal Facility in a safe and permit compliant manner to support future storage of Waste Treatment and Immobilization Plant low activity waste canisters. • Maintain Waste Receiving and Processing Facility operations, the Central Waste Complex, the Low Level Burial Grounds, and the Mixed Waste Disposal Trenches for compliant acceptance and storage of low-level, mixed low-level and transuranic wastes at Hanford.	

Soil and Water Remediation-Groundwater/Vadose Zone (PBS: RL-0030)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This PBS scope includes groundwater/vadose zone remediation activities that address groundwater contamination and protection of the groundwater resources on the Hanford Site. The principal activities for this PBS include: 1) field characterization to assess the extent of radiological/chemical contamination and contaminants for movement in the vadose zone and groundwater; 2) vadose zone, groundwater and risk assessment modeling and evaluating cumulative impacts to the Hanford groundwater and Columbia River; 3) operation of groundwater remediation systems and implementation of alternative methods; 4) installation of wells to maintain an integrated Comprehensive Environmental Response, Compensation, and Liability Act and Resource Conservation and Recovery Act compliant network for monitoring groundwater plumes and for implementing groundwater/vadose zone remedies; 5) groundwater well drilling, maintenance, decommissioning; and 6) complete final restoration of groundwater on the Hanford Site. This PBS supports the regulatory decision-making process for remediation of all of the groundwater operable units on the Hanford site. It also supports the regulatory processes for waste sites along the River Corridor and on the Central Plateau as well as the regulatory processes for and remediation of soil contamination in the Central Plateau deep vadose zone.

Soil and Water Remediation-Groundwater/Vadose Zone - 2035 (PBS: RL-0030)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
141,500	**116,916**	**-$24,584**
• Provide site-wide services for day-to-day operations of general utilities, fire department, and analytical services. Site-wide services are prorated across the PBS's. • Continue integration of site-wide groundwater and vadose zone cleanup activities, groundwater contamination monitoring, and operations, maintenance, and necessary modifications of existing remediation systems, and deployment of chemical and biological treatment to select areas in support of final remedies. • Progress toward completion of decision documentation needed to complete the Comprehensive Environmental Response, Compensation, and Liability Act Remedial Investigation/Feasibility Study process and to	• Provide site-wide services of day-to-day operations of general utilities, fire department, and analytical services. Site-wide services are prorated across the PBS's. • Continue integration of Site-wide groundwater and vadose zone cleanup activities, groundwater contamination monitoring, as well as operations, maintenance, and necessary modifications of existing remediation systems. • Continue to meet Tri-Party Agreement M-24 Well Drilling commitments, as well as, the 200-DV-1 well drilling for the Uranium Treatability Testing. • Continue progress towards the completion of the groundwater characterization and supporting decision documentation needed to complete Comprehensive Environmental Response,	• Decrease reflects changes in the infrastructure support services contribution to this PBS.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
obtain the final Record of Decision for the 100 Area located in the River Corridor and the 200 Area located in the Central Plateau.	Compensation, and Liability Act requirements and to obtain final remediation Records of Decision in the River Corridor and Central Plateau operable units. Finalization of the 200-UP-1 Remedial Design/Remedial Action Work Plan.	

Richland Community and Regulatory Support (PBS: RL-0100)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The scope of this PBS includes regulatory and stakeholder support and assistance payments. The activities included in this PBS are: 1) regulatory costs as required by Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Compensation, and Liability Act, Tri-Party Agreement, Clean Air Act, and other State and local laws and regulations; 2) grants to Washington State and Oregon State; 3) payments in lieu of property taxes made to the three host counties where the Hanford reservation is located; and 4) funding to support the Hanford Advisory Board and related activities. This PBS scope will end upon completion of the Hanford EM mission.

Richland Community and Regulatory Support (PBS: RL-0100)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
19,701	**14,701**	**-$5,000**
• Support Washington and Oregon States' emergency preparedness, environmental oversight, Hanford Advisory Board and other related activities. • Support Washington State Department of Ecology's Resource Conservation and Recovery Act mixed waste fee and Washington State Department of Health's air emissions monitoring invoice and payment-in-lieu-of-taxes to Grant, Benton, and Franklin Counties.	• Support Washington and Oregon States' emergency preparedness, environmental oversight, Hanford Advisory Board and other related activities. • Support Washington State Department of Ecology's Resource Conservation and Recovery Act mixed waste fee and Washington State Department of Health's air emissions monitoring invoice and payment-in-lieu-of-taxes to Grant, Benton, and Franklin Counties.	• The decrease reflects efficiencies in discretionary support activities.

Nuclear Facility D&D-Remainder of Hanford (PBS: RL-0040)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This PBS scope includes implementation of various Hanford Site cleanup initiatives: cleanup of radioactivity and chemical contamination in about 1,000 waste sites with potential impact to groundwater and approximately 500 facilities primarily on the Central Plateau; continuing litigation support; and infrastructure operations. Life-cycle work scope includes: decontamination, decommissioning, dismantlement, and disposition of surplus facilities (including canyon facilities); remediation of all 200 Area waste sites containing large inventories of mobile contaminants that may migrate into groundwater plumes (includes removal of contaminants or construction of surface barrier caps over waste sites); deactivation and disposition of contaminated equipment; final disposition of Cold War legacy wastes; site occupational medicine program; safe operation of facilities awaiting deactivation and demolition; and maintenance and repair of system infrastructure. Following the assessment activities for the Central Plateau through the remedial decision process under PBS RL-0030, remedial design and implementation will be performed under PBS RL-0040. This PBS workscope includes the physical cleanup of these waste sites and facilities.

Nuclear Facility D&D-Remainder of Hanford - 2035 (PBS: RL-0040)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
70,992	**65,922**	**-$5,070**
• Provide site-wide services for day-to-day operation of general utilities, fire department, and analytical services. Site-wide services are prorated across the PBS's. • Maintain Richland Operation Office integrated baseline. • Manage and provide surveillance and maintenance for surplus facilities and waste sites, and waste site remediation activities. This includes Environmental Safety and Health oversight, quality management, safety and job hazards analysis, technical support and integration of site activities. • Provide steam for critical site heating systems, occupational medicine, Bonneville Power Administration electricity, litigation support and General Services Administration office space rent. • Support completion of near-term infrastructure repairs, facility upgrades and infrastructure maintenance.	• Provide site-wide services of day-to-day operations of general utilities, fire department, and analytical services. Site-wide services are prorated across the PBS's. • Support surveillance and maintenance activities to ensure safety for waste sites and facilities. Also supports environment, safety and health oversight, quality management, safety and job hazards analysis, and technical support. • Provide steam for critical site heating systems, occupational medicine, Bonneville Power Administration electricity, litigation support, General Services Administration office space rent and Land Conveyance efforts.	• Decrease reflects the completion of infrastructure repairs, upgrades, and maintenance.

Nuclear Facility D&D-River Corridor Closure Project (PBS: RL-0041)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The River Corridor Closure Project addresses the remediation of contaminated soils and facilities adjacent to the Columbia River. This project will remediate waste sites; deactivate, decontaminate, decommission, and demolish associated facilities; and place the old production reactors in an interim safe storage condition until a final decision is made addressing reactor disposition. Remediation activities are being conducted in accordance with Comprehensive Environmental Response, Compensation, and Liability Act Interim Action Records of Decision. The River Corridor is divided into four major sub-areas: (1) 100 Area, comprised of shutdown plutonium production reactors, support facilities, and burial grounds; (2) 300 Area, comprised of former reactor fuel fabrication, research and development, and support facilities; (3) the support complex in the 400 Area, comprised of a small number of former maintenance and storage facilities and waste sites located outside of the Fast Flux Test Facility reactor protected area; and (4) 600 Area, which includes two major burial grounds (618-10 and 618-11) located between the 100 and 300 Areas, and vacant land extending from the Columbia River to the Central Plateau in the middle of the Site. This PBS also operates the Environmental Restoration Disposal Facility to support the disposal of wastes generated during the cleanup of the Hanford site.

Nuclear Facility D&D-River Corridor Closure Project (PBS: RL-0041)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
337,642	**266,866**	**-$70,776**
• Provide site-wide services for day-to-day operations of general utilities, fire department, and analytical services; surveillance and maintenance of nuclear and support facilities in the 100, 300, and 400 Areas of the River Corridor; and continued operations of specific key utilities (water, sewer electrical) in those same areas. • Operate the Environmental Restoration Disposal Facility in support of Hanford Site demolition and remediation activities. • Continue field remediation and facility disposition other areas along the Columbia River Corridor. • Continue remediation of the 618-10 burial ground trenches and continue vertical pipe unit technology demonstration.	• Provide site-wide services for day-to-day operations of general utilities, fire department, and analytical services; and continued operations of specific key utilities (water, sewer electrical) in those same areas. • Provide River Corridor Closure Project remediation and disposal of deactivation, decommissioning, decontamination and demolition and field remediation of remaining contaminated waste site and facilities (excluding primarily the 324 Facility deactivation, decommissioning, decontamination and demolition, the 300-296 waste site and the high risk 618-11 Burial Ground). Work accomplishes the Hanford cleanup vision through: 1) deactivation, decommissioning, decontamination and demolition and/or remediation in the 100 Area, 300 Area, and	• The decrease reflects completion of the majority of planned facility deactivation and decommissioning and waste site remediation by the River Corridor Closure Contractor. Also reflects schedule and technology development changes to 1) the high risk 618-10 burial ground remediation; 2) the highly radioactive 300-296 waste site beneath the 324 Building; 3) the high-risk 618-11 burial ground adjacent to an operating commercial nuclear reactor.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
• Initiate engineering / mockup / fabrication for remediation of the highly radioactive site 300-296 waste site below Building 324. • Complete the remediation of deep chromium contamination in the 100 Area. • Initiate remaining deactivation/decontamination/ decommissioning/demolition work in the 300 Area. • Conduct methods testing and procurement of equipment to remediate vertical pipe units at the 618-10 burial ground. • Conduct field remediation work in the 300 Area.	600 Area; and 2) waste transportation, treatment and disposal in the 200 Area at the Environmental Restoration and Disposal Facility. • Complete the River Corridor Closure Project interim response actions for 100-D (20 sites), 100-H (5 sites), 100-IU-2/6 Areas (36 sites), and disposition of the 300 Area Surplus Facilities excluding 324 Building; and continue remediation of the 100-N waste sites. • Continue remediation of the highly radioactive waste site 300-296 waste located beneath the 324 Building (i.e., the Radiochemical Engineering Complex), in the 300 Area close to the City of Richland. • Support safe activities for K Area Remediation. • Initiate 618-10 burial ground vertical pipe units field remediation. • Initiate remediation planning for the high risk 618-11 burial ground.	

Nuclear Facility D&D-Fast Flux Test Facility Project (PBS: RL-0042)

Overview

This PBS can be found within the Non-Defense Environmental Cleanup appropriation.

This PBS scope includes deactivation and decommissioning of the Fast Flux Test Facility, a 400-megawatt (thermal) liquid metal (sodium) cooled fast neutron flux nuclear test reactor, and 44 support buildings and structures. The deactivation activities consist of: reactor de-fueling; disposition of 376 reactor fuel assemblies by washing, drying, loading in storage casks and transferring to appropriate storage locations; draining approximately 260,000 gallons of sodium from operating plant systems, reactor vessel, and fuel storage vessels; sodium residual cleaning of all plant systems and vessels; disposition of 260,000 gallons of bulk sodium by conversion to sodium hydroxide for use by the Waste Treatment Plant; and the shutdown of Fast Flux Test Facility auxiliary systems.

The Fast Flux Test Facility Project has completed the sodium drain from the Fast Flux Test Facility to the Sodium Storage Facility, stored the reactor nuclear fuel and placed the facility in long-term surveillance and maintenance.

Nuclear Facility D&D-Fast Flux Test Facility Project (PBS: RL-0042)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
2,542	**2,562**	**+$20**
• Support long-term safe and compliant surveillance and maintenance for Fast Flux Test Facility and support facilities. This support is required until the residual and bulk sodium is dispositioned and facility deactivation and decommissioning is resumed. • Provide site-wide services for facility maintenance and safe keeping.	• Support long-term safe and compliant surveillance and maintenance for Fast Flux Test Facility and support facilities. This support is required until the residual and bulk sodium is dispositioned and facility deactivation and decommissioning is resumed. • Provide site-wide services for facility maintenance and safe keeping.	• No significant change.

Safeguards and Security (PBS: RL-0020)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The Safeguards and Security Program at the Hanford site protects nuclear materials, equipment, information, facilities, and supports the Hanford remediation and cleanup programs. These activities provide for overall site access security and protection of personnel and government property as part of EM's overall landlord responsibilities for the 586 square mile Hanford site.

Safeguards and Security (PBS: RL-0020)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
69,078	**63,668**	**-$5,410**
• Maintain appropriate and compliant safeguards and security programs at the Hanford Site, including protection of Category I Spent Nuclear materials for the Richland Operations Office. • Maintain appropriate and compliant safeguards and security programs including: protection program management, emergency response, physical security, information protection, protective force, personnel security, cyber security and nuclear material control and accountability at the Hanford Site for the Richland Operations Office and the Office of River Protection.	• Provide a Safeguards and Security services program at the Hanford Site, including protection of Category I Spent Nuclear Material for the Richland Operations Office and the Office of River Protection. • Provide site safeguards and security services for both the Richland Operations Office and the Office of River Protection. Including: protection program management, emergency response, Physical Security, information protection, Protective Force, Personnel Security, Cyber Security and Nuclear Material Control and Accountability.	• The decrease is the result of applying risk-management prioritization to site security services to optimize efficiencies in: site access operations (barricades and badge issuance), personnel security clearances, cyber security maintenance and testing, nuclear materials safeguards monitoring, and protective force staffing and training.

Richland Capital Summary ($K)

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Current
Capital Operating Expenses Summary (including (Major Items of Equipment (MIE))							
Plant Projects (GPP and IGPP) (<$10M)	0	0	260	0	0	0	0
Total, Capital Operating Expenses	**0**	**0**	**260**	**0**	**0**	**0**	**0**
Plant Projects (GPP and IGPP) (Total Estimated Cost (TEC) <$10M)							
Richland							
Total Plant Projects (GPP/IGPP) (Total Estimated Cost (TEC) <$5M)	0	0	260	0	0	0	0
Total, Richland	**0**	**0**	**260**	**0**	**0**	**0**	**0**
Total, Plant Projects (GPP and IGPP) (Total Estimated (TEC) <$10M	**0**	**0**	**260**	**0**	**0**	**0**	**0**
Total, Capital Summary	**0**	**0**	**260**	**0**	**0**	**0**	**0**

Richland Construction Projects Summary ($K)

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Containerized Sludge (KBC Sludge Removal Annex Construction), Richland (RL-0012)							
Richland Spent Nuclear Fuel (RL-0012)							
Total Estimate Cost (TEC)	230,355	45,975	25,245	21,946	21,946	0	-21,946
Other Project Costs (OPC)	77,918	38,022	4,382	3,465	3,465	0	-3,465
Subtotal, Containerized Sludge (KBC Sludge Removal Annex Construction), Richland (RL-0012)	308,273	83,997	29,627	25,411	25,411	0	-25,411
15-D-401, Containerized Sludge (KBC Sludge Removal Annex Construction), Richland (RL-0012)							
Total Estimate Cost (TEC)	0	0	0	0	0	26,290	+26,290
Other Project Costs (OPC)	0	0	0	0	0	5,344	+5,344
Subtotal, 15-D-401, Containerized Sludge (KBC Sludge Removal Annex Construction), Richland (RL-0012)	0	0	0	0	0	31,634	+31,634
Total Project Cost (TPC) 15-D-401	308,273	83,997	29,627	25,411	25,411	31,634	+6,223

15-D-401
KW Basin Sludge Removal Project, Hanford, WA
Project is for Design and Construction

1. Summary and Significant Changes

This project was originally executed as an operating funded capital asset project. Beginning in FY 2015, EM is requesting that the Total Estimated Cost (TEC) of this project be appropriated in the capital line item construction account. This data sheet includes a full accounting of the total project cost expended in prior years

The most recent DOE O 413.3B approved Critical Decision (CD) is Critical Decision-2/3 that was approved on February 3, 2014 with a Total Project Cost of $308,273,000 and Critical Decision-4 in the 2nd quarter of FY 2018.

A Federal Project Director has been assigned to this project.

This Project Data Sheet does not include a new start for the FY 2015.

This Project Data Sheet is new.

2. Critical Decision (CD) and D&D Schedule

(fiscal quarter or date)

	CD-0	CD-1	Design Complete	CD-2	CD-3	CD-4[a]	D&D Start	D&D Complete
FY 2015 Request	07/03/07	06/17/10	02/03/2014	02/03/2014	02/03/2014	2QFY2018	N/A	N/A

[a] Critical Decision-4 for this line item will be at the start of Engineered Container Retrieval and Transfer System operations.

CD-0 – Approve Mission Need
CD-1 – Approve Alternative Selection and Cost Range
CD-2 – Approve Performance Baseline
CD-3 – Approve Start of Construction
CD-3A – Approve Long Lead Procurements / Annex
CD-4 – Approve Start of Operations or Project Closeout
D&D Start – Start of Demolition & Decontamination (D&D) work
D&D Complete –Completion of D&D work

(Fiscal quarter or date)

	Performance Baseline Validation*	CD-3A Long Lead Procurement	Annex
FY 2015 Request	2QFY2014	05/01/2012	05/01/2012

CD-3A – Procurement of long lead equipment and construction of the KW Basin Annex Building with associated building systems. The annex used to house and install equipment when received, which is compatible with other ongoing K Basin activities. This project has been an operations activity following the tenets of DOE O 413.3B with a tailored approach to the Critical Decision levels. The above dates for Critical Decision levels are based on the RL approved tailored levels only. The Performance Management Baseline is submitted, reviewed and authorized for performance each fiscal year. The validation date above is the date the baseline for the tailored Critical Decision-3A was initially validated.

3. Baseline and Validation Status

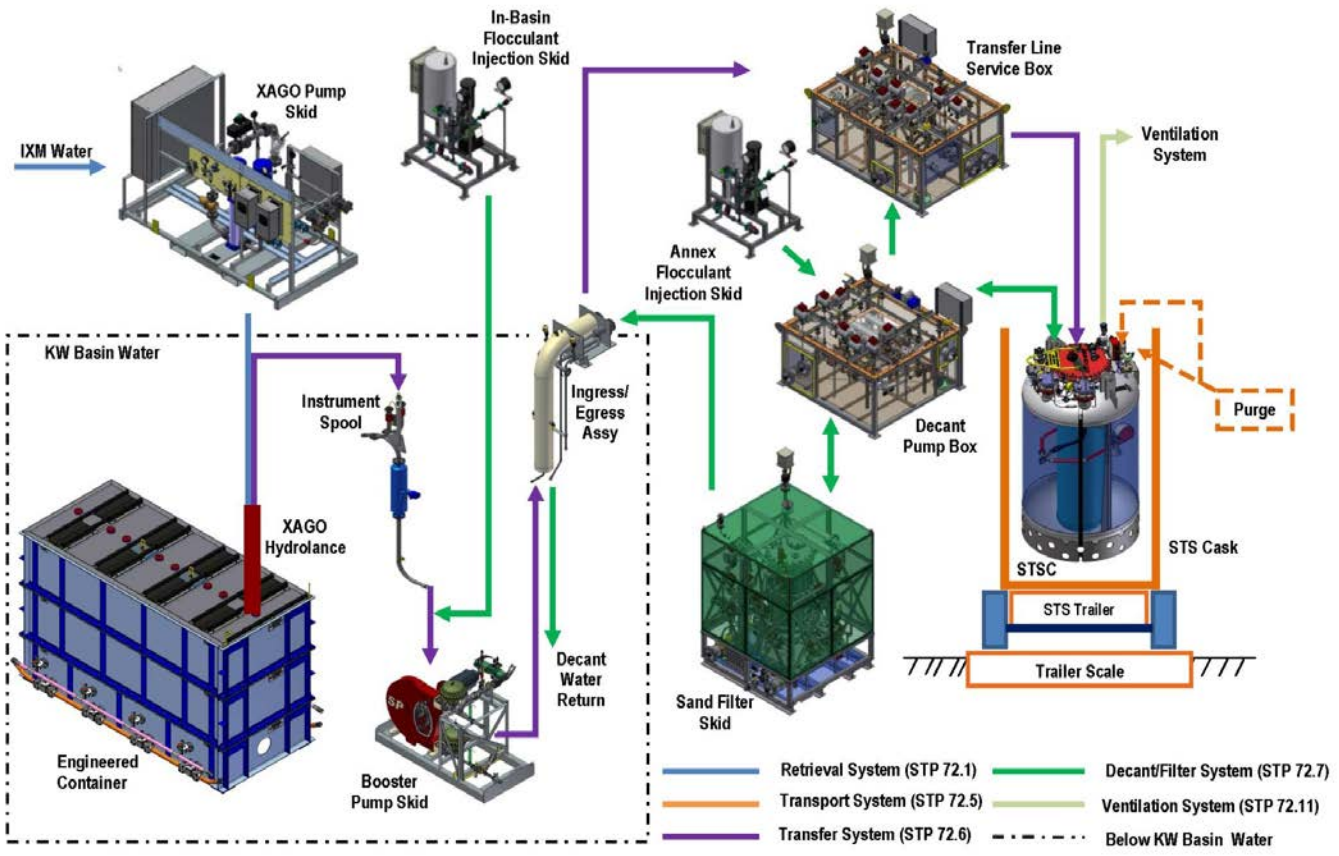
	(dollars in thousands)						
	TEC, Design	TEC, Construction	TEC, Total	OPC Except D&D	OPC, D&D	OPC, Total	TPC
FY 2015	41,072	189,283	230,355	77,918	NA	77,918	308,273

4. Project Description, Scope, and Justification

Mission Need

The consolidated sludge in KW Basin originated from previous recovery campaigns. This sludge is highly radioactive and poses a threat to the nearby Columbia River. Retrieval of this material requires specialized, engineered equipment and special precautions to ensure the safety of the public, workers and the environment. This project will design, install and operate a system to safely remove this material and transport it to the T Plant in the Central Plateau for temporary storage. A simplified illustration of this system is pictured below.

Engineered Container Retrieval and Transfer System Simplified Flow Diagram



Scope and Justification

The scope of this project A-21C, is to design, procure, construct, test, and commission an integrated set of processes and systems to remove radioactive sludge currently stored in the KW Basin. The system being constructed and installed in the 105KW Basin is composed of the following components:

1. Xago Hydrolance Retrieval tool
2. Overfill recovery tool
3. Positive displacement booster pump
4. Sludge Transport and Storage Containers and trailer
5. Transfer line service box
6. Decant pump box
7. Sand Filter
8. Flocculant Addition systems
9. Transfer Hose system
10. Ventilation System
11. Instrumentation & Controls System

In addition, the project includes the Sludge Treatment Project Modified KW Basin Annex which is being constructed to accommodate the Engineered Container Retrieval and Transfer System process equipment and provide a Sludge Transport and Storage Containers loading bay to support sludge packaging and transfer. The Sludge Treatment Project Modified KW Basin Annex will be a Hazard Category 2 facility, with a design life of five years. The Sludge Treatment Project annex mission life is expected to be one year. The Sludge Treatment Project Modified KW Basin Annex will include a Sludge Transport and Storage Containers loading bay, a mechanical equipment room, process HVAC system, a high-efficiency particulate air filter room, and a change room. The Transfer Line Service Box, Decant Pump Box, and Annex Flocculant Addition Skid will be located on the mezzanine level in the Annex. The Sand filter will be located in the STSC loading bay below the mezzanine level.

The Engineer Container Retrieval and Transfer System Subproject encompasses the disposition of the sludge that is contained in engineer containers #210, 220, 230, 240, 250, and 260. Sludge Treatment Project recommended a two-phase retrieval, storage, and packaging strategy in HNF-39744, *Sludge Treatment Project Alternatives Analysis Summary Report*, and Richland approved that approach in correspondence 09-AMRC-0173, "Contract KBC-30811, Rev. 6 Sludge Treatment Project – Project Execution Plan 1-6 No. DE-AC06-08RL14788 - External Technical Review of the Hanford K Basins Sludge Treatment Project."

5. Financial Schedule

(dollars in thousands)

	Appropriations	Obligations	Costs
Total Estimated Cost (TEC)			
Design			
FY 2010[a]	11,468	11,468	11,468
FY 2011[a]	11,933	11,933	11,933
FY 2012[a]	12,457	12,457	12,457
FY 2013	5,214	5,214	4,714
FY 2014	0	0	500
Total, Design	41,072	41,072	41,072
Construction			
FY 2012[a]	10,117	10,117	10,117
FY 2013[a]	20,031	20,031	20,031
FY 2014[a]	21,946	21,946	21,946
FY 2015	26,290	26,290	26,290

	(dollars in thousands)		
	Appropriations	Obligations	Costs
FY 2016	62,604	62,604	62,604
FY 2017	34,588	34,588	34,588
FY 2018	13,707	13,707	13,707
Total, Construction	189,283	189,283	189,283
TEC			
FY 2010	11,468	11,468	11,468
FY 2011	13,582	13,582	13,582
FY 2012	20,925	20,925	20,925
FY 2013	25,245	25,245	24,745
FY 2014	21,946	21,946	22,446
FY 2015	26,290	26,290	26,290
FY 2016	62,604	62,604	62,604
FY 2017	34,588	34,588	34,088
FY 2018	13,707	13,707	14,207
Total, TEC	230,355	230,355	230,355
Other Project Cost (OPC)[a]			
OPC except D&D			
FY 2009	13,388	13,388	13,388
FY 2010	10,165	10,165	10,165
FY 2011	7,912	7,912	7,912
FY 2012	6,557	6,557	6,557
FY 2013	4,382	4,382	4,382
FY 2014	3,465	3,465	3,465
FY 2015	5,344	5,344	5,344
FY 2016	7,756	7,756	7,756
FY 2017	8,754	8,754	8,754
FY 2018	10,195	10,195	10,195
Total, OPC except D&D	77,918	77,918	77,918
OPC			
FY 2009	13,388	13,388	13,388
FY 2010	10,165	10,165	10,165
FY 2011	7,912	7,912	7,912
FY 2012	6,557	6,557	6,557
FY 2013	4,382	4,382	4,382
FY 2014	3,465	3,465	3,465
FY 2015	5,344	5,344	5,344
FY 2016	7,756	7,756	7,756
FY 2017	8,754	8,754	8,754
FY 2018	10,195	10,195	10,195
Total, OPC[a]	77,918	77,918	77,918
Total Project Cost (TPC)			
FY 2009	13,388	13,388	13,388
FY 2010	21,633	21,633	21,633
FY 2011	21,494	21,494	21,494
FY 2012	27,482	27,482	27,482
FY 2013	29,627	29,627	29,127
FY 2014	25,411	25,411	25,911

	(dollars in thousands)		
	Appropriations	Obligations	Costs
FY 2015	31,634	31,634	31,634
FY 2016	70,360	70,360	70,360
FY 2017	43,342	43,342	43,342
FY 2018	23,902	23,902	23,902
Total, TPC	308,273	308,273	308,273

[a] Funded through PBS RL-0012.

6. Details of Project Cost Estimate

	(dollars in thousands)		
	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Total Estimated Cost (TEC)			
Design			
Design	41,072	41,072	
Contingency	0	0	
Total, Design	41,072	41,072	
Construction			
Equipment	39,604	39,604	
Construction	98,133	98,133	
Contingency	51,546	51,546	
Total, Construction	189,283	189,115	
Total, TEC	230,355	230,355	
Contingency, TEC	51,546	51,546	
Other Project Cost (OPC)			
OPC except D&D			
Testing	33,539	33,539	
Sampling & Analysis	14,355	14,355	
Conceptual Design	5,603	5,603	
Start-Up	6,100	6,100	
Other OPC Costs	9,321	9,321	
Contingency	9,000	9,000	
Total, OPC except D&D	77,918	77,918	
Total, OPC	77,918	77,918	
Contingency, OPC	9,000	9,000	
Total, TPC	308,273	308,273	
Total, Contingency	60,546	60,546	

7. Schedule of Appropriation Requests

($K)

Request		Prior Years	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Outyears	Total
FY 2015 Request	TEC	71,220	21,946	26,290	62,604	34,588	13,707	0	0	230,355
	OPC	42,404	3,465	5,344	7,756	8,754	10,195	0	0	77,918
	TPC	113,624	25,411	31,634	70,360	43,342	23,902	0	0	308,273

8. Related Operations and Maintenance Funding Requirements

Start of Operation or Beneficial Occupancy (fiscal quarter or date)	2Q FY2018
Expected Useful Life (number of years)	1
Expected Future Start of D&D of this capital asset (fiscal quarter)	TBD

Operations of the containerized sludge transfer system will begin 2Q FY2018. The facility housing the system is the 105KW Basin that must maintain operations during the Engineered Container Retrieval and Transfer System operations.

The operations of this system is being used to transfer the KW Basin sludges from the existing engineered containers in the Basin to the Sludge Transfer and Storage Containers to be transported to the interim storage in the Central Plateau away from the river.

(Related Funding requirements)

(dollars in thousands)

	Annual Costs		Life Cycle Costs	
	Current Total Estimate	Previous Total Estimate	Current Total Estimate	Previous Total Estimate
ECRTS Operations	16,045		16,045	
Utilities	0		0	
Maintenance & Repair	0		0	
Total	16,045		16,045	

9. Required D&D Information

Area	Square Feet
Area of new construction	
Area of existing facility(s) being replaced and D&D'd by this project	
Area of additional D&D space to meet the "one-for-one" requirement from the banked area	

10. Acquisition Approach

The project acquisition strategy is the use of the existing Richland Prime contractor under the existing Cost Price plus Incentive Fee Plateau Remediation Contract and the subcontractors for Plateau Remediation Contract.

River Protection

Overview

The cleanup of Hanford's radioactive and chemical tank waste is aligned with the Department's Strategic Plan goals to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and Cold War activities. The mission of the Department's Office of River Protection is to remove waste from the past production of nuclear materials stored in the underground tank farms at the Hanford Site, treat the waste to standards that are protective of human health and the environment, prepare the waste for permanent disposal, close the tanks, and decommission the treatment facilities. The Richland Operations Office manages the remaining cleanup activities at Hanford, and the Pacific Northwest Site Office manages the Pacific Northwest National Laboratory.

The Hanford Site was established during World War II to produce plutonium for the nation's nuclear weapons. The Hanford mission is now primarily site cleanup and environmental restoration. The 586 square mile Hanford Site is located along the Columbia River in southeastern Washington State and is home to the world's first plutonium production complex. Beginning with the Manhattan Project and throughout the Cold War, Hanford played a pivotal role in providing nuclear materials for the nation's defense program. However, more than 40 years of plutonium production also yielded a challenging nuclear waste legacy—approximately 56 million gallons of radioactive and chemical waste stored in 177 underground tanks (tank farms) located on Hanford's Central Plateau, just 7 miles from the Columbia River. Hanford tanks contain a complex and diverse mix of radioactive and chemical waste in the form of sludge, salts and liquids, necessitating a variety of unique waste retrieval and treatment methods. While the radioactive nature of the waste—with 176 million curries—requires remote-operated equipment and shielded facilities for the high-level waste, the uncertainty and diversity of the physical and chemical properties of the 56 million gallons of waste that make the mission uniquely complex.

The Department is working aggressively to complete and operate the treatment facilities and infrastructure to safely immobilize and dispose Hanford's tank waste. As currently planned, the Waste Treatment and Immobilization Plant at Hanford will consist of five facilities: (1) Analytical Laboratory; (2) Balance of Facilities; (3) Low-Activity Waste Facility; (4) High-Level Waste Facility; and (5) Pretreatment Facility. The plant is being designed to process tank farm waste over roughly a 40-year period. The current plan requires waste to be processed through the Pretreatment Facility, where it will be separated into a low-activity waste stream to be vitrified in the Low-Activity Waste Facility and a high-level waste stream to be vitrified in the High-Level Waste Facility. The Analytical Laboratory and Balance of Facilities support these vitrification activities. Since significant technical issues must be resolved for the Pretreatment and High Level Waste Facilities, the Department is prioritizing its Waste Treatment and Immobilization Plant resources on the construction of the Low-Activity Waste Facility, Balance of Facilities and Analytical Laboratory, and on resolving those technical issues. The Department is focusing on the start-up and operations of these facilities as they are nearest to completion and do not have any significant technical issues.

On September 24, 2013, DOE released the Hanford Tank Waste Retrieval, Treatment, and Disposition Framework. This document contains a discussion of a possible strategic approach and options to resolve concerns regarding completion of the waste treatment mission. Consistent with the Department's focus on the completion of the Low-Activity Waste Facility, the Balance of Facilities, and the Analytical Laboratory in order to commence the immobilization of waste as soon as practicable while resolution of technical issues continues, the FY 2015 budget includes support for analysis and preliminary design of a Low Activity Waste Pretreatment System. Although some work could proceed on all facilities within the Waste Treatment and Immobilization Plant, DOE’s focus allows it to address the most mobile tank waste, the supernate, in the near term while in parallel working to resolve the technical issues associated with the High-Level Waste and Pretreatment Facilities.

The cost of direct maintenance and repair activities at the Office of River Protection is estimated to be $66,740,000.

Regulatory Framework

The U. S. Department of Energy, the U. S. Environmental Protection Agency, and the State of Washington Department of Ecology signed a comprehensive cleanup and compliance agreement on May 15, 1989. The Hanford Federal Facility Agreement and Consent Order, or Tri-Party Agreement, is an agreement for achieving compliance with the Comprehensive Environmental Response, Compensation, and Liability Act remedial action provisions and with the Resource Conservation and Recovery Act treatment, storage, and disposal unit regulations and corrective action provisions. It is a framework for implementing many of the environmental regulations that apply to Hanford. More specifically, the Tri-Party Agreement includes but is not limited to (1) cleanup commitments, (2) agency cleanup responsibilities, and (3) enforceable milestones to achieve regulatory compliance and remediation. In October 2010, the Department of Energy and the Washington State Department of Ecology reached an agreement on revised timetables under the Tri-Party Agreement. In addition, the Office of River Protection's mission must also comply with the October 25, 2010, consent decree entered in the case of *Washington v. Chu*, No. 08-5085-FVS. The consent decree covers certain work and scheduled activities for the Waste Treatment and Immobilization Plant and Tank Farms.

Contractual Framework

Program planning and management at the Office of River Protection is conducted through the issuance and execution of contracts to large and small businesses. The Office of River Protection develops near- and long-term planning approaches in order to develop contract strategies and program/project plans at a more detailed level. Selected contractors then execute these plans to complete cleanup in accordance with the terms of the contracts. Current contracts at the site include:

- Bechtel National, Inc., for coordinating the construction of Hanford's Waste Treatment Plant for the period 12/11/00 - 08/15/19. It is a cost plus award fee completion contract.
- Washington River Protections Solutions, LLC, for safely managing the 56 million gallons of radioactive tank waste until it is prepared for disposal. The contract covers the period from 05/29/08 - 09/30/13, with option period one 10/1/13 - 09/30/16 and option period two 10/1/16 - 09/30/18. The Department has exercised option period one. It is a cost plus award fee term contract.
- Advanced Technologies and Laboratories International, Inc., to operate the laboratory complex for analysis of highly radioactive samples in support of all Hanford projects. The contract covers the period from 11/20/09 - 11/19/11, with extension options exercised through January 2015. The contract is a cost plus award fee term contract being performed by a small business. There is an ongoing acquisition for the replacement contract for high level waste lab services, with release of the Request for Proposal pending.

Highlights of the FY 2015 Budget Request

The Office of River Protection's FY 2015 budget request represents planned efforts for continued achievement of important cleanup progress required by the Consent Decree and Tri-Party Agreement, and as guided by the tank waste strategy in development. In summary, the Office of River Protection budget request is designed to maintain safe operations for the tank farms; achieve progress in meeting regulatory commitments; enable the development of infrastructure necessary to enable waste treatment operations; continue construction focus on the Low-Activity Waste Facility, Balance of Facilities and Analytical Laboratory; resolve significant technical issues; and protect workers, the public and environment.

As the design and construction of the Waste Treatment and Immobilization Plant has progressed, a number of technical issues have emerged involving the tank farms, the Waste Treatment and Immobilization Plant, and the interfaces between the two. As previously noted, the issues in Waste Treatment and Immobilization Plant are primarily associated with the Pretreatment Facility and, to a lesser degree, the High-Level Waste Facility. However, because according to the current design all waste would flow through the Pretreatment Facility, these technical issues impact the Office of River Protection's overall ability to begin treating Hanford's tank waste. The majority of ongoing work associated with the High-Level Waste Facility is focused on resolving the technical issues and completing the facility design. In addition, DOE suspended all of the construction work on the Pretreatment Facility to focus on resolving the Pretreatment Facility technical issues. The timing of resolution of these issues will determine when construction can begin again on the High-Level Waste and Pretreatment Facilities.

The FY 2015 request includes funding for two line-item projects: 1) the Waste Treatment and Immobilization Plant ($690,000,000) and 2) the Low Activity Waste Pretreatment System ($23,000,000). The mission of the Waste Treatment and Immobilization Plant project is to construct a treatment facility to blend waste from the tank farms with molten glass and pour it into stainless steel canisters suitable for long-term storage in the case of high-level waste and disposal in the case of low-level waste. The mission of the Low Activity Waste Pretreatment System is to remove tank waste solids and cesium to produce a low activity waste feed stream to the Waste Treatment and Immobilization Plant. Subject to appropriate approvals under the Department's critical decision process and applicable consent decree requirements, the $23,000,000 would support analysis and preliminary design activities (Preliminary Engineering and Design).

Strategic Management

To maximize near-term risk reduction and leverage Waste Treatment and Immobilization Plant facilities as they are completed, the Department is developing a strategy to complete the Waste Treatment and Immobilization Plant in phases in order to successfully complete the Hanford tank waste mission. The options under consideration account for the full scope of the technical challenges associated with the Pretreatment Facility and High-Level Waste Facility, and the current construction timelines for the individual Waste Treatment and Immobilization Plant facilities. An option of the strategy that may be put in place is to address the most mobile tank waste first, begin Waste Treatment and Immobilization Plant glass operations as soon as possible, and leverage valuable operational insight on how Waste Treatment and Immobilization Plant operates in a full production environment as commissioning and startup of Waste Treatment and Immobilization Plant facilities proceeds. DOE is currently focused on completing the design, procurement and construction of the Low-Activity Waste Facility, Balance of Facilities and Analytical Laboratory. Most of the Balance of Facilities is expected to be completed in the near future, followed by the Analytical Laboratory, and then the Low-Activity Waste Facility. Startup and commissioning activities for these facilities will follow completion of construction.

The Office of River Protection's cleanup mission is also guided by agreements established on May 15, 1989, and October 25, 2010. The Hanford Federal Facility Agreement and Consent Order, known as the Tri-Party Agreement, is a cleanup and compliance agreement signed by DOE, the Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology).

River Protection
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 Request vs FY 2014 Enacted
Defense Environmental Cleanup						
Office of River Protection						
Tank Farm Activities						
ORP-0014 / Radioactive Liquid Tank Waste Stabilization and Disposition	463,085	520,216	0	520,216	545,000	+24,784
Waste Treatment and Immobilization Plant						
ORP-0060 / Major Construction-Waste Treatment Plant	634,356	690,000	0	690,000	690,000	0
Total, Office of River Protection	**1,097,441**	**1,210,216**	**0**	**1,210,216**	**1,235,000**	**+24,784**

River Protection
Explanation of Major Changes ($K)

	FY 2015 Request vs FY 2014 Enacted
Defense Environmental Cleanup	
Office of River Protection	
Tank Farm Activities	
ORP-0014 / Radioactive Liquid Tank Waste Stabilization and Disposition	
▪ Increase reflects the initiation of the Low Activity Waste Pretreatment System project preliminary design and tank integrity activities.	+24,784
Total, River Protection	**+24,784**

Radioactive Liquid Tank Waste Stabilization and Disposition (ORP-0014)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This project includes activities required to stabilize approximately 56 million gallons of radioactive waste stored underground in 177 tanks, including retrieval, treatment, disposal and closure of the facilities. Due to the age of the tanks, up to sixty-seven tanks are suspected of leaking a total of about one million gallons of waste into the soil. Absent appropriate ongoing maintenance of these tanks, continued leakage could occur and threaten the Columbia River. Ultimately, the majority of the waste must be removed and processed to a form suitable for disposal.

Radioactive Liquid Tank Waste Stabilization and Disposition (PBS: ORP-0014)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
520,216	**545,000**	**+$24,784**
• Maintain Tank Farms in a safe and compliant manner. • Conduct 222-S Laboratory operations and upgrades. • Conduct 242-A Evaporator campaigns and upgrades. • Continue Single-Shell Integrity activities. • Continue C-Farm retrieval activities. • Continue removal of hose-in-hose transfer lines. • Continue AY/AZ Farm ventilation system upgrades. • Continue AY and AZ Farm Feed Delivery System activities. • Complete Supplemental Treatment Technology Report.	• Maintain Tank Farms in a safe and compliant manner. • Conduct 222-S Laboratory operations and upgrades. • Conduct 242-A Evaporator campaigns and upgrades. • Continue Single-Shell and initiate Double Shell Integrity activities. • Complete C-Farm retrievals and associated retrieval data reports. • Continue removal of hose-in-hose transfer lines. • Initiate DNFSB 2012-2 ventilation system upgrades. • Initiate AP Farm Feed Delivery System activities. • Initiate preliminary design of Low Activity Waste Pretreatment System project. • Continue AY/AZ Farm ventilation system upgrades. • Continue AY and AZ Farm Feed Delivery System activities.	• Increase reflects the initiation of the Low Activity Waste Pretreatment System project preliminary design and tank integrity activities.

Major Construction-Waste Treatment Plant (PBS: ORP-0060)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The Waste Treatment and Immobilization Plant is critical to the completion of the Hanford tank waste program; it will provide the primary treatment capability to immobilize (vitrify) the radioactive tank waste at the Hanford Site. As currently planned, the Waste Treatment and Immobilization Plant complex will include five major facilities: Pre-treatment Facility, High Level Waste Facility, Low Activity Waste Facility, Analytical Laboratory, and the Balance of Facilities. The Pre-treatment Facility will separate the radioactive tank waste into low-activity and high-level fractions. The high-level fraction will be transferred to the High Level Waste Facility for immobilization, ready for storage. Approximately 37 percent of the low-activity waste fraction will be transferred and immobilized in the Low Activity Waste Facility, with the balance immobilized using an additional supplemental treatment being developed on the Hanford Site. The Analytical Laboratory will provide real-time analytical support for plant operations. The Balance of Facilities includes office facilities, chemical storage, site utilities, and infrastructure.

Major Construction-Waste Treatment Plant (PBS: ORP-0060)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
690,000	**690,000**	**0**
Low Activity Waste Facility - Design Activities: • Continue engineering support to Construction, Engineering & Nuclear Safety & Commissioning • Continue planning for Low Activity Waste direct feed • Continue working towards design completion • Complete Safety System Requirements Specification design verification • Complete confirmed stress/support final calculations for plant design • Continue Permitting Dangerous Waste Permit Application agency packages for Ecology public reviews Procurement Activities:	**Low Activity Waste Facility -** • Continue planning and design for a Low Activity Waste Facility direct feed option • Prepare Engineering Design Complete Lists for various systems • Submit Final Documented Safety Analysis to DOE for review and approval • Complete design modification for a Low Activity Waste Facility direct feed option • Continue Permitting Dangerous Waste Permit Application agency packages for Ecology public reviews • Install instrument tubing and racks • Install closed circuit TV equipment • Install Wet Electrostatic Precipitator internals	• No change.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
• Deliver major permanent plant equipment: ▪ Mechanical Handling & System o Melter Offgas Caustic Scrubber o Thermal Catalytic Oxidizer o In Cell Containers (Grapples) ▪ Electrical Equipment System o Communication Equipment o Power, Control, Instrumentation, Fiber Optic Cable ▪ Control & Instrumentation o Various Instrumentation Items (Thermocouples/Thermowells/Pitot Tubes) Construction Activities: • Complete partition wall (drywall) installation • Finish +48-foot elevation piping installation • Install remaining +48-foot elevation large equipment • Complete subcontract for melter refractory • Complete melter 1 & 2 installation • Continue construction to satisfy Tri-Party Agreement for "LAW Construction Substantially Complete" Startup Activities: • Begin System Startup Scoping and Design Completion List • Continue drafting test procedures for systems and begin review and approval • Begin turnover of systems from Construction to Startup **Analytical Laboratory and Balance of Facilities -**	• Complete HVAC duct installation • Complete Low Activity Waste Facility construction (excluding direct feed scope) • Melters ready for turnover to Startup **Balance of Facilities** • Continue system and component level testing in facilities necessary to support the operation of the Low Activity Waste Facility • Complete construction of the Standby Diesel Generator Facility • Complete construction of the Anhydrous Ammonia Facility **Analytical Laboratory** • Begin receiving analytical instrumentation to support the operation of the Low Activity Waste Facility • Continue development of laboratory methods to support Low Activity Waste Facility sample analysis • DOE – Approve Documented Safety Analysis Review **High Level Waste** • Complete HVAC duct and fire barrier design • Complete melter cave 1 & 2 crane maintenance and decontamination walls to +72ft elevation • Erect steel for Truck Bay Roof • Complete Dangerous Waste Permit permitting process for RLD-VSL-007 & RLD-VSL-008 • Resolve technical issues • Ramp-up engineering, design, and construction of the High-Level Waste Facility and resume	

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
Design Activities: • Continue engineering support to Construction, Engineering and Nuclear Safety, & Commissioning. • Issue Design Completion List for all systems in Analytical Laboratory. Procurement Activities: • Balance of Facilities major plant equipment deliveries: ▪ Communications equipment ▪ Emergency Turbine Generators ▪ Q Isolation Tripping Devices • Analytical Laboratory major plant equipment deliveries: ▪ Shield Windows ▪ Batteries ▪ Differential Thermal Analysis ▪ Mercury Analyzer ▪ HEPA Filters ▪ Removal Weirs Construction Activities: • Analytical Laboratory ▪ Attain Lab construction complete status to support LAW Facility ▪ Complete installation of penetration seals and insulation • Balance Of Facilities ▪ Complete construction of the Balance of Facilities Anhydrous Ammonia system vessel structure. ▪ Complete installation of the standby generator	procurements in support of construction. **Pretreatment Facility** • Continue full-scale vessel testing • Resolve Erosion/Corrosion Technical Issues • Resolve In-Service Inspection Issue • Complete revision to design criteria for black cell vessel structural integrity • Provide care and maintenance for the pretreatment facility during construction pause	

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
▪ Complete Cathodic Protection ▪ Provide permanent power to site main switchgear Startup Activities: • Balance of Facilities ▪ Perform system testing and accept all systems from construction o Water Treatment o Cooling Tower o Main Switchgear o Non-Radioactive Liquid Waste Disposal Pump House o BOF Switchgear ▪ Startup and introduce power to the Waste Treatment and Immobilization Plant via the main switchgear building ▪ Low Activity Waste simulator ready for training • Analytical Laboratory ▪ Complete system scoping ▪ Perform system scoping ▪ Perform System Testing ▪ Begin development of laboratory methods to support sample analysis ▪ Start system Training **High-Level Waste Facility –** Design Activities: • Complete safety system requirements specification • Complete design of electrical motor control centers and load control centers		

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
• Complete uninterruptable power supply system design • Perform supporting calculations for selected instruments related to analytic limit set-points • Close out actions associated with jumper design through piping and instrumentation diagram updates • Complete all Melter Cave jumper system calculations, nominal designs and prepare all jumper drawings based on nominal designs • Complete engineering to support procurement for High Integrity Fans shaker table testing • Issue HLW piping and process equipment heat gain calculations • Confirm design of C2 Ventilation (C2V) and C3 Ventilation (C3V) Heating, Ventilation, and Air Conditioning systems • Complete isometric drawings for the Melter Offgas Treatment Process, Pulse Jet Ventilation, Stack Discharge Monitoring systems • Complete Preliminary Documented Safety Analysis and Authorization Basis Amendment Request update Procurement Activities: • Deliver process racks • Deliver auto sampler units • Deliver 6 ton canister handling crane • Deliver 6 ton canister storage crane • Deliver glove box posting port • Deliver filter cave power manipulator • Deliver melter cave feed preparation vessels HFP-		

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
VSL-001, 002, 005,006 • 480V Load and Motor Control Centers • Melter Feed Process Agitators and Centrifugal Pumps Construction Activities: • Provide care and maintenance of the building areas where construction has paused • Complete walls around both melters to elevation +58 ft • Continue commodity installation (HVAC, pipe, electrical raceway, liner plate, coatings) Startup Activities: • No Scope. **For the Pretreatment Facility –** Design Activities: • Complete Hydrogen Piping and Ancillary Vessels Qualitative Risk Analysis, and route analysis • Complete Erosion/Corrosion testing, analysis, and reports • Complete integrated design reviews • PVP/PVV/C5 Ventilation (C5V) issue closure • Complete development of Vessel mixing testing strategies and planning for the testing • Performance of full-Scale testing and reporting for two vessels • Care and maintenance of the Pretreatment building during construction pause Procurement Activities: • Deferred Scope. Construction Activities: • Care and maintenance of the Pretreatment		

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
building. Startup Activities: • No Scope.		

Office of River Protection Construction Projects Summary ($K)

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
01-D-416, Waste Treatment and Immobilization Plant, Hanford WA							
01-D-16A-D WTP Subprojects A-D							
Total Estimate Cost (TEC)	7,063,535	4,776,133	515,429	510,000	510,000	575,000	+65,000
Other Project Costs (OPC)	0	0	0	0	0	0	+0
01-D-16E Pretreatment Facility							
Total Estimate Cost (TEC)	5,199,465	3,097,123	118,927	180,000	180,000	115,000	-65,000
Other Project Costs (OPC)							
Total Project Cost (TPC) 01-D-416	12,263,000	7,873,256	634,356	690,000	690,000	690,000	+0
15-D-409, Low Activity Waste **Pretreatment System (Hanford) (ORP-0014)**							
Total Estimate Cost (TEC)	TBD	0	0	0	0	23,000	+23,000
Other Project Costs (OPC)	TBD	0	0	10,000	10,000	0	-10,000
Total Project Cost (TPC) 15-D-409	TBD	0	0	10,000	10,000	23,000	+13,000

01-D-416 Waste Treatment and Immobilization Plant (WTP), Hanford, WA
Project Data Sheet (PDS) is for Construction

1. Significant Changes

The most recent Department of Energy (DOE) O 413.3B approved Critical Decision (CD) is CD-3C, approved on 4/21/2003, with a Total Project Cost of $5,781,000,000 and CD-4 of July 2011. The latest approved Baseline Change was on December 22, 2006, with a Total Project Cost (TPC) of $12,263,000,000 and CD-4 of November 2019.

This Fiscal Year (FY) 2015 Project Data Sheet is an update to the FY 2013 Reprogramming Project Data Sheet that was submitted in May 2013. The FY 2014 enacted appropriation is $690,000,000 for Waste Treatment and Immobilization Plant under two Congressional control point. The FY 2015 budget request reflected in this Project Data Sheet is $690,000,000 and is under two Congressional control points. The budget request for 01-D-16A-D, Low-Activity Waste Facility, Analytical Laboratory, Balance of Facilities, and High-Level Waste Facility, is $575 million. The budget request for 01-D-16E, Pretreatment Facility, is $115 million, which includes $100 million to implement actions to resolve technical issues in FY 2015.

The Department is in the process of developing a revised performance baseline. However, in the interim, the current approved performance baseline cost of $12,263,000,000 and project completion (CD-4) of November 2019 are utilized for the preparation of this PDS.

During the 3rd quarter of FY 2012 several safety, quality and technical issues caused the Department to review the approach of the re-baseline effort. In the 4th quarter of FY 2012 the Department provided additional guidance to refocus its efforts on the completion of the Low-Activity Waste Facility, Balance of Facilities, and Analytical Laboratory (LBL) and the near-term activities needed to resolve the safety, quality and management processes, and technical issues at the Pretreatment and High-Level Waste Facilities. Instead of continuing the current level of construction work on Pretreatment and High Level Waste facilities focus has been shifted to resolving the remaining safety, and technical issues, which are primarily associated with these two facilities.

As the Waste Treatment and Immobilization Plant completes the assessment and planning of the safety, quality and technical issues related to the Pretreatment and High Level Waste facilities the funding for these facilities will transition to execution and resolution of the technical issues for those facilities.

Once complete, the new performance baseline will be available for an External Independent Review and then be presented for approval to the Secretarial Acquisition Executive. Upon completion of the re-baseline effort this PDS will be formally revised and submitted to Congress.

The Department is continuing to focus on strategies and key actions that optimize the approach to design, procurement, construction, startup, commissioning and turnover of the Waste Treatment and Immobilization Plant facilities.

A Federal Project Director has been assigned to this project.

Status of Major Technical and Performance Issues

As of the end of August 2013, the Waste Treatment and Immobilization Plant project is making considerable progress in resolving the safety, quality and management processes, and technical issues that have been identified as a result of multiple internal and external reviews of the project over the past two years. These reviews have resulted in a series of management actions to assess the root causes of the issues and implement management and process changes that, combined with resolution of technical issues, will allow the project to complete the design of the facility and move forward with major procurements and construction of the Waste Treatment and Immobilization Plant. The major safety, quality and management processes, and technical issues are summarized below.

Safety Culture: Concerns with the safety culture at the WTP project were identified and detailed in Defense Nuclear Facility Safety Board (DNFSB) Recommendation 2011-1, and further evaluated in independent assessments conducted by the Department of Energy's Office of Health, Safety and Security in 2011 and 2012. The Waste Treatment and Immobilization

Plant project has developed comprehensive plans and management actions to address the findings of the Safety Culture reviews which included:

- Management processes of the Waste Treatment and Immobilization Plant nuclear safety and quality culture,
- Misalignment between the Waste Treatment and Immobilization Plant safety basis documentation and the design,
- Timeliness of issues identification and resolution,
- Lack of clarity in roles, responsibilities, authorities and accountabilities, and
- Perception of safety culture and work environment specific to the Waste Treatment and Immobilization Plant.

Quality and Management Processes: DOE internal assessments conducted in 2012 identified a number of issues associated with engineering, procurement quality and management processes. The Waste Treatment and Immobilization Plant project is conducting a series of root cause analyses to address the DOE identified assessment issues including management of design/safety margin and flow-down of nuclear quality assurance requirements to subcontractors.

Technical Issues:
The most significant technical issues associated with the project have to do with performance and sustainability of systems and components contained in the plant Black Cells. The Black Cell concept is a key part of the facility design for the Pretreatment and High-Level Waste facilities. Black Cells contain certain equipment in closed, shielded spaces for which no maintenance or entry is planned for the 40-year design life of the plant. In the summer of 2012 the Secretary of Energy convened a group of independent subject-matter scientific and engineering experts to evaluate adequacy of the Black Cell design. The objectives of the Black Cell technical review were to:

- Assess the diagnostics capability to detect equipment vulnerabilities and/or failures in the Pretreatment Facility and High-Level Waste Facility Black Cells;
- Assess the provisions to follow up and repair failed or vulnerable systems and components in the Black Cells; and
- Recommend any design changes or operational enhancements. This effort is intended to achieve a more systematic approach to safety, reliability and defense-in-depth for design, construction and operability of the Waste Treatment and Immobilization Plant.

One of the outcomes of the assessment was the formation of a Department of Energy led Design Completion Team. The Design Completion Team identified five major areas of technical uncertainty that required resolution in order to resolve the technical issues and move forward to complete the design and construction of the High Level Waste and Pretreatment facilities. Under the Design Completion Team, five technical sub-teams have been established and consist of federal and contractor employees and are able to draw upon independent experts as needed from the national laboratories, academia and industry. This has added critical support to the technical review and technical resolution process. The five technical sub-teams and their charters are described below:

a. Identification of Waste Pre-conditioning Requirements and Facilities

The charter of this team is to bridge the gap between the chemical and physical constancy of the 56-million gallons of tank waste in the Hanford Tank Farms and the ability of the Waste Treatment and Immobilization Plant to safely and effectively process that waste. This team is tasked to identify the appropriate Waste Acceptance Criteria (WAC) for the waste that is to be fed to the Waste Treatment and Immobilization Plant, document capabilities necessary to sample and fully characterize the waste before it is sent to Waste Treatment and Immobilization Plant to ensure it complies with the Waste Acceptance Criteria, and to identify what, if any, pre-conditioning of the waste will be required to ensure that Waste Treatment and Immobilization Plant can safely process the waste. Pre-conditioning may require new processes and/or facilities to mix, blend and sample the waste prior to sending it to Waste Treatment and Immobilization Plant.

b. Full Scale Vessel Testing

The Full Scale Vessel Technical Team is chartered to plan, conduct, and report on the results of Waste Treatment and Immobilization Plant vessel mixing tests to be conducted at a newly-constructed test facility in Richland, WA. The scope of the full scale vessel qualification testing program includes the verification of the operational and performance requirements of the pulse jet mixed vessels in the Pretreatment Facility and High-Level Waste Facility. There are 38 pulse jet mixed vessels in the Pretreatment Facility and High Level Waste Facility, sharing 22 unique designs. The vessels will be grouped

into like (common) designs, and a subset of the vessels that represent the most bounding operational conditions will be selected for Full Scale Vessel Testing. In most cases, the actual Waste Treatment and Immobilization Plant production vessels will be used for the Full Scale Vessel Testing program. The qualification testing will include test objectives to support qualification of the vessel level pulse jet mixed control systems.

The scope of the Full Scale Vessel Testing program consists of the following key elements:

- Definition of the test requirements,
- Establishment of the test program,
- Preparation and commissioning of the test platform and vessels,
- Conduct of the testing,
- Evaluation of test results, and
- Identification of any required design changes or verification of the current vessel designs.

The preliminary test strategy consists of testing six vessels at full scale: one vessel from High Level Waste Facility and five vessels from Pretreatment Facility. Full scale testing is currently planned to start in CY 2014. The test vessel for the High Level Waste facility (RLD-VSL-08T) will be tested first in order to resolve pulse jet mixing issues for High Level Waste and facilitate resuming full construction of the High Level Waste wet process cell (black cell) as early as practical. Testing of Pretreatment Facility vessels will follow completion of the High Level Waste vessel in alignment with technical and funding priorities.

c. In-Service Inspection/Redundancy

The charter of the In-Service Inspection and Redundancy Team is to perform a risk-informed assessment of Black Cell and hard-to-reach components, with the purpose of providing the capability to inspect Black Cell piping and vessels as required to ensure those components will remain operable and serviceable over the 40-year operating life of the plant. Specific activities that will be conducted by this team include:

- Identifying instrumentation, locations and methods for performing periodic or continuous monitoring and inspection of critical components,
- Conducting Failure Modes and Effects Analysis to identify areas of vulnerability (high-risk),
- Identify potential design changes for the high-risk components or systems, and
- Identifying necessary repair capabilities for Black Cell piping and components.

d. Black Cell Analysis

The Black Cell Analysis Team is responsible for assessing and providing technical recommendations to ensure that specific black cell structures, systems, components and processes are adequately designed to meet their designated functional and safety requirements over the 40-year design life of the plant. Some of the specific issues that the Black cell Analysis Team will address include:

- Resolve black cell piping and equipment specific system and structural design issues,
- Review the need and current plans for performing structural modifications of installed vessels,
- Charter independent expert technical reviews for issues pertinent to vessel mixing:
  - Hydrogen gas release and
  - Criticality,
- Ensure that vessel and piping designs comply with the nuclear safety basis, and
- Finalize sampling and waste transfer system designs.

e. Erosion/Corrosion

The material allowance for erosive wear for vessels mixed with pulse jets has been determined based on calculation that include assumptions such as particle size distribution and hardness, expected fluid velocities, solids concentration, duty cycles, etc. Recent DOE reviews of Waste Treatment and Immobilization Plant Black cell components documented concerns regarding the application of wear allowances and safety factors to account for uncertainty in wear rate projections. The in-

service inspection program for the vessels and the operating control requirements have not yet been fully developed, and the procedures for waste feed control and measurement of waste characteristics important to erosion wear for waste feed to the Waste Treatment and Immobilization Plant have not been developed.

In addition to the concerns related to erosion and the generalized corrosion that could result from erosion, DOE engineering surveillances conducted in 2011 identified that the design for Waste Treatment and Immobilization Plant lacked adequate documentation for treatment of localized corrosion (e.g., pitting, crevice corrosion, and stress corrosion cracking) in establishing materials design, operating, and safety margins for the selected materials of construction used in Waste Treatment and Immobilization Plant process piping and vessels.

The objectives of the Erosion/Corrosion team are to:

- Resolve outstanding issues associated with WTP design basis for materials selection and wear allowances for erosion and corrosion for vessels, components and piping,
- Define operating basis (e.g., temperature, chemistry and pH) to ensure that localized corrosion (e.g., pitting, crevice cracking and stress cracking) are prevented, and
- Define long term testing requirements to support the Waste Treatment and Immobilization Plant in-service inspection program.

The Erosion/Corrosion team is currently focused on defining and establishing the bounding waste property characteristics that will be used for analyses and testing, establishing test plans, conducting tests, identifying necessary design changes, and establishing tests needed to support the In-Service Inspection program requirements.

Other Technical Issues: Other technical and engineering issues that are currently being addressed by the Waste Treatment and Immobilization Plant project include Waste Treatment and Immobilization Plant uncertainties associated with the safety controls for spray leaks from High Level Waste Facility Waste Treatment and Immobilization Plant process piping and components, heat transfer analysis for Waste Treatment and Immobilization Plant process vessels, engineering issues with design and construction of the electrical distribution system, and the potential for line plugging in Waste Treatment and Immobilization Plant process piping.

2. Design, Construction, and D&D Schedule

(fiscal quarter or date)

	CD-0	CD-1	Design Complete	CD-2	CD-3	CD-4	D&D Start	D&D Complete
FY 2001 Budget Request	SEP 1995	SEP 1996	4Q FY2005	AUG 1998	OCT 2001	1Q FY2007	N/A	N/A
FY 2002 Budget Request	SEP 1995	SEP 1996	4Q FY2005	4Q FY1998	MAY 2002	1Q FY2007	N/A	N/A
FY 2003 Budget Request	SEP 1995	SEP 1996	4Q FY2005	4Q FY1998	MAY 2002	1Q FY2007	N/A	N/A
FY 2004 Budget Request	SEP 1995	SEP 1996	4Q FY2005	4Q FY1998	MAY 2002	1Q FY2007	N/A	N/A
FY 2003 Congressional Notification	SEP 1995	SEP 1996	4Q FY2005	04/21/2003	04/21/2003	3Q FY2008	N/A	N/A
FY 2005 Budget Request	SEP 1995	SEP 1996	4Q FY2005	04/21/2003	04/21/2003	3Q FY2008	N/A	N/A
FY 2004 Reprogramming	SEP 1995	SEP 1996	4Q FY2005	04/21/2003	04/21/2003	3Q FY2008	N/A	N/A
FY 2006 Budget Request	SEP 1995	SEP 1996	4Q FY2007	04/21/2003	04/21/2003	3Q FY2008	N/A	N/A
FY 2007 Budget Request	SEP 1995	SEP 1996	4Q FY2007	04/21/2003	04/21/2003	3Q FY2008	N/A	N/A

(fiscal quarter or date)

	CD-0	CD-1	Design Complete	CD-2	CD-3	CD-4	D&D Start	D&D Complete
FY 2008 Budget Request	SEP 1995	SEP 1996	4Q FY2010	04/21/2003	04/21/2003	2Q FY2017	N/A	N/A
FY 2009 Budget Request	SEP 1995	SEP 1996	4Q FY2013	04/21/2003	04/21/2003	1Q FY2020	N/A	N/A
FY 2010 Budget Request	SEP 1995	SEP 1996	1Q FY2016	04/21/2003	04/21/2003	1Q FY2020	N/A	N/A
FY 2011 Budget Request	SEP 1995	SEP 1996	1Q FY2016	04/21/2003	04/21/2003	1Q FY2020	N/A	N/A
FY 2012 Budget Request	SEP 1995	SEP 1996	1Q FY2016	04/21/2003	04/21/2003	1Q FY2020	N/A	N/A
FY 2013 Budget Request	SEP 1995	SEP 1996	1Q FY2016	04/21/2003	04/21/2003	1Q FY2020	N/A	N/A
FY 2014 Budget Request	SEP 1995	SEP 1996	1Q FY2016	04/21/2003	04/21/2003	1Q FY2020	N/A	N/A
FY 2013 Reprogramming	SEP 1995	SEP 1996	1Q FY 2016	4/21/2003	4/21/2003	1Q FY 2020	N/A	N/A
FY 2015 Budget Request	SEP 1995	SEP 1996	1Q FY2016	04/21/2003	04/21/2003	1Q FY2020	N/A	N/A

CD-0 – Approve Mission Need
CD-1 – Approve Alternative Selection and Cost Range
CD-2 – Approve Performance Baseline
CD-3 – Approve Start of Construction
CD-4 – Approve Start of Operations or Project Closeout

Notes:
1) The FY 2009 Budget Request 'Design Complete' date was based on the June 2007 Execution Revision schedule.
2) The FY 2004 Budget Request 'CD-3' date of 4Q FY 2002 represented the start of physical construction. The FY 2003 Congressional Notification 'CD-3' represents the date approval was granted to begin full construction (CD-3c).
3) The FY 2008 Budget Request 'CD-4' date of 2Q FY 2017 represented the completion of physical construction of the Waste Treatment and Immobilization Plant facilities. In the FY 2009 Budget Request, the 'CD-4' completion date represents the completion of construction, start-up, commissioning and transfer of the Waste Treatment and Immobilization Plant to the operations contractor.
4) In the FY 2010 Budget Request, the 'Design Complete' date reflects contract dates from the revised January 2009 contract.
5) The 'CD-4' date will be modified after completion of the re-baseline activity.

3. Baseline and Validation Status

(Fiscal Quarter)

	TEC, Design	TEC, Construction	TEC, Total	OPC Except D&D	OPC, D&D	OPC, Total	Total Project Cost
FY 2001	0	5,466,000	5,466,000	7,022,000	0	7,022,000	12,488,000
FY 2002	0	4,350,000	4,350,000	0	0	0	4,350,000
FY 2003	0	4,350,000	4,350,000	0	0	0	4,350,000
FY 2004	0	4,350,000	4,350,000	0	0	0	4,350,000
FY 2003 Cong. Notification	0	5,781,000	5,781,000	0	0	0	5,781,000
FY 2005	0	5,781,000	5,781,000	0	0	0	5,781,000
FY 2006	0	5,781,000	5,781,000	0	0	0	5,781,000
FY 2007	0	5,781,000	5,781,000	0	0	0	5,781,000

(Fiscal Quarter)

	TEC, Design	TEC, Construction	TEC, Total	OPC Except D&D	OPC, D&D	OPC, Total	Total Project Cost
FY 2008	0	12,263,000	12,263,000	0	0	0	12,263,000
FY 2009	0	12,263,000	12,263,000	0	0	0	12,263,000
FY 2010	0	12,263,000	12,263,000	0	0	0	12,263,000
FY 2011	0	12,263,000	12,263,000	0	0	0	12,263,000
FY 2012	0	12,263,000	12,263,000	0	0	0	12,263,000
FY 2013[1]	0	12,263,000	12,263,000	0	0	0	12,263,000
FY 2014[1]	0	12,263,000	12,263,000	0	0	0	12,263,000
FY 2013 Reprogramming[1]	0	12,263,000	12,263,000	0	0	0	12,263,000
FY 2015[1]	0	12,263,000	12,263,000	0	0	0	12,263,000

1) The performance baseline will be validated upon completion of the re-baseline activity initiated in FY 2012.

The FY 2001 Budget Request presented the contract value using a privatization approach for this project. The contract included design, construction, and commissioning (at a Total Estimated Cost of $5,466,000,000), and ten years of initial operations, which would treat approximately 10 percent of waste by volume, and 25 percent of the waste, by radioactivity, for a Total Project Cost of $12,488,000,000. The plant was designed to have a 40 year operational life, during which time it would process a total of 40 percent of the waste by volume. In May 2000, the Secretary of Energy terminated the privatization contract, because of the dramatic cost increase submitted by the contractor to complete the project.

In December 2000, the Department awarded a Cost-Plus Incentive-Fee contract estimated at $4,350,000,000 to design, construct and commission the WTP. In April 2003, a contract modification was negotiated with the principal change of increasing the through-put capacity of the Pretreatment and High-Level Waste Facilities, with the goal of pretreating all of the waste during the 40 year life of the facility, immobilizing all high-level fraction and at least 40 percent of the low-activity fraction. A second plant (not part of the current project contract) would be necessary to treat and immobilize the balance of the low-activity waste. The Department approved a Performance Baseline for this scope with a Total Project Cost of $5,781,000,000. In December 2006, due to over-optimistic cost estimates, and seismic and technical issues, the Department approved a new Performance Baseline with a revised Total Project Cost of $12,263,000,000.

A project re-baselining effort commenced in the second quarter FY 2012. In the fourth quarter of FY 2012, the Design Completion Team was initiated to resolve project technical issues. A decision was made to delay the re-baselining effort until the Design Completion Team could address the technical issues. Once technical issues are resolved, a new baselining effort will commence. Once complete, the new performance baseline will be available for an External Independent Review and then be presented for approval to the Secretarial Acquisition Executive. Upon completion of the re-baseline effort this Project Data Sheet will be formally revised and submitted to Congress.

4. Project Description, Justification, and Scope

The Waste Treatment and Immobilization Plant is the cornerstone of the River Protection Project's mission to clean up hazardous and radioactive waste contained in underground storage tanks at the Hanford Site in southeastern Washington State. Approximately 56,000,000 gallons of waste containing approximately 240,000 metric tons of processed chemicals and less than 176,000,000 curies of radionuclides are currently stored in 160 tanks (retrieval has been completed in ten tanks). These caustic wastes are in the form of liquids, slurries, saltcakes, and sludge, and are the result of more than four decades, starting in 1944, of reactor operations and plutonium production for national defense. The infrastructure that supports storage of this waste is aging. The construction of the WTP and its operations, once completed, will treat and stabilize these waste-forms.

The Waste Treatment and Immobilization Plant, the world's largest most complex nuclear waste treatment plant, covers 65 acres and includes three major nuclear facilities - Pretreatment Facility, High-Level Waste Facility, and Low-Activity Waste Facility - along with a large Analytical Laboratory, and supporting buildings and utilities collectively known as the Balance of Facilities. The Pretreatment Facility accomplishes the separation of the wastes. The High-Level Waste Facility will

immobilize, through vitrification, the entire high-level fraction. The Low-Activity Waste Facility will immobilize, through vitrification, a substantial portion of the low-activity fraction. The Waste Treatment Plant Key Project Performance Parameters for the Low Activity Waste facility are 18-metric tons of glass per day and the High Level Waste facility are 3.6 metric tons. The Analytical Laboratory Facility will provide the necessary sample analysis needed throughout the processing facilities. The Balance of Facilities includes the plant infrastructure and support facilities (steam plant, electrical switch yards, chiller plant, etc.)

The Department's Waste Treatment and Immobilization Plant Project is responsible for managing the critically important effort to design, build, and commissioning the waste treatment plant. The Waste Treatment and Immobilization Plant is an unprecedented engineering and construction challenge equivalent to simultaneously building two nuclear power plants. Through a process known as vitrification, most of Hanford's tank waste volume will be transformed into a sturdy, durable form by blending the waste with molten glass and pouring it into stainless steel canisters. In that form, the waste will remain stable and impervious to the environment while its radioactivity dissipates over hundreds to thousands of years.

The Department’s ORP is implementing cleanup under three contract vehicles:

- The Tank Operations Contractor provides for safe storage and retrieval of tank wastes, storage and disposal of treated waste, decontamination and decommissioning of tanks, and initiation of post closure monitoring of the tank farms. The scope of work for this contract also includes providing the infrastructure to support hot commissioning; and
- The Waste Treatment and Immobilization Plant Project Contractor is to design, construct, commission, and support transition of the plant into full operation.
- Advanced Technologies and Laboratories International, Inc. to operate the laboratory complex for analysis of highly radioactive samples in support of all Hanford projects.

The Waste Treatment and Immobilization Plant contractor will complete process and facility design; perform procurement and construction; conduct acceptance testing; select and integrate a subcontractor into the project team to provide the necessary operating and commissioning capability; and conduct all required environmental, safety, quality, and health activities. From contract award, the contractor is the design authority responsible for the design of the plant.

When operating, the Waste Treatment and Immobilization Plant will pretreat tank waste through separation into a high-level fraction and a low-activity fraction. Both fractions will be immobilized through vitrification into glass. The immobilized high-level fraction will be temporarily stored on the Hanford site in a canister storage building. The immobilized low-activity fraction will be placed in a disposal facility on the Hanford site.

Risk Management is an integral part of project management and not a separate function. Risk Management is used as a management tool to identify and manage risks to avoid/minimize negative impacts and maximize positive impacts. The risk management process and its integration and execution throughout the project areas and organizations is overseen by a Joint Risk Management Team chaired by the Waste Treatment Plant Project Manager and comprised of DOE’s Area Federal Project Managers and key Waste Treatment Plant Senior Project and Functional Managers.

The status of risks is reviewed monthly as a minimum including a dashboard assessment. The Engineering, Procurement, Construction, and Commissioning and DOE Risk Handling Strategies include developing Risk Response Plans, establishing risk handling actions including identifying individual responsibilities, documenting completion dates, determining residual risk levels, establishing impacts, and developing a time phased residual impact profile.

Remaining risks are primarily associated with technical uncertainties in the High-Level Waste and Pretreatment Facilities.

The River Protection Project regulatory pathway for cleanup has been provided in the past primarily by the Hanford Federal Facility Agreement and Consent Order, commonly known as the Tri-Party Agreement. In October 2010, DOE and the Washington State Department of Ecology agreed on revised timetables under the Tri-Party Agreement and a new Consent Decree was filed in federal district court for cleanup of the Hanford Site. Major milestones include beginning treatment of waste at the WTP in 2019 (from 2011), emptying single-shell tanks of waste by 2040 (from 2018), and completion of treatment of all tank waste by 2047 (from 2028).

The project is being conducted in accordance with the project management requirements in DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, and all appropriate project management requirements have been met.

01-D-16A-D, Low-Activity Waste Facility, Analytical Laboratory, Balance of Facilities, High-Level Waste Facility

Scope and Justification

The Low-Activity Waste Facility will immobilize, through vitrification, a substantial portion of the low-activity fraction. The Key Project Performance Parameters for the Low Activity Waste facility are 18-metric tons of glass per day and the High Level Waste facility are 3.6 metric tons. The Analytical Laboratory Facility will provide the necessary sample analysis needed throughout the processing facilities. The High-Level Waste Facility will immobilize, through vitrification, the entire high-level fraction. The Balance of Facilities includes the plant infrastructure and support facilities (steam plant, electrical switch yards, chiller plant, etc.). The Waste Treatment and Immobilization Plant contractor will complete process and facility design; perform procurement and construction; conduct acceptance testing; select and integrate a subcontractor into the project team to provide the necessary operating and commissioning capability; and conduct all required environmental, safety, quality, and health activities.

01-D-16E, Pretreatment Facility

Scope and Justification

The Pretreatment Facility will separate radioactive tank waste into high-activity waste and low-activity waste fractions and transfer the segregated waste to the High-Level Waste Facility and the Low-Activity Waste Facility for vitrification. The main pretreatment processes include filtration to separate the high curie solids from the low-activity liquids, evaporation to remove excess water, and an ion exchange system to remove cesium from the tank waste. The processing of the waste will be accomplished in black cells (isolated from entry) and a hot cell (remotely accessible) which are located in concrete structures in the center of the building. A hardened control room building and an annex building will be located adjacent to the Pretreatment Facility. The Waste Treatment and Immobilization Plant contractor will complete process and facility design; perform procurement and construction; conduct acceptance testing; select and integrate a subcontractor into the project team to provide the necessary operating and commissioning capability; and conduct all required environmental, safety, quality, and health activities.

5. Financial Schedule

(dollars in thousands)

	Appropriations	Obligations	Costs
Total Estimated Cost (TEC)			
Construction			
FY 2001[a]	401,171	401,171	226,311
FY 2002	665,000	665,000	488,469
FY 2003[bc]	671,898	671,898	621,574
FY 2004[d]	697,530	682,402	725,246
FY 2005[e]	684,480	695,552	812,811
FY 2006	521,180	525,236	516,003
FY 2007[fgh]	690,000	621,000	551,013
FY 2008[i]	683,721	752,721	727,766
FY 2009	690,000	690,000	716,613
FY 2010	690,000	690,000	790,485
FY 2011[j]	738,699	738,699	794,734
FY 2012[k]	740,000	740,000	820,000
FY 2013[l]	634,356	634,356	690,000
FY 2014	690,000	690,000	690,000

(dollars in thousands)

	Appropriations	Obligations	Costs
FY 2015	690,000	690,000	690,000
Outyears	2,374,965	2,374,965	2,401,975
Total, Construction	12,263,000	12,263,000	12,263,000

(a) FY 2001 Appropriations reflect a FY 2001 Rescission of $829,000 and FY 2001 Supplemental Appropriation of $25,000,000. The original appropriation was $377,000,000.
(b) FY 2003 Appropriations reflect approved FY 2003 reprogramming of $83,981,567 to increase the project from $606,018,433 to $690,000,000 to meet project requirements.
(c) FY 2003 Appropriations and Obligations reflect a reduction of $18,102,000 as part of the FY 2004 Energy and Water Development Appropriation Act prior year reduction.
(d) FY 2004 Appropriations reflect a reduction of $3,964,000 due to FY 2004 Government-wide Rescission of 0.59 percent and increase of $11,494,000 due to a reprogramming.
(e) FY 2005 Appropriations reflect a reduction of $5,520,000 due to FY 2005 Government-wide Rescission of 0.8 percent.
(f) New WTP Project Performance Baseline as approved on December 22, 2006.
(g) The FY 2007 National Defense Authorization Act states that only 90 percent of funds may be obligated until the Secretary of Energy certifies the WTP Earned Value Management System. In March of 2008 the WTP Earned Value Management System received certification.
(h)The Prior Year Appropriations, Obligations, and Costs have been updated to reflect a more current estimate of the anticipated utilization of the non-facility specific carryover funding remaining in the WTP line-item, 01-D-416.
(i) FY 2008 Enacted Appropriations reflect a reduction of $6,278,000 due to the FY 2008 rescission of 0.91 percent.
(j) FY 2011 Continuing Appropriations reflect a reduction of $1,302,356 due to the FY 2011 rescission of 0.2 percent.
(k) A project re-baselining effort commenced in the 2nd quarter FY 2012. In the 4th quarter of FY 2012 the Design Completion Team was initiated to resolve project technical issues. A decision was made to delay the re-baselining effort until the Design Completion Team could address the technical issues. Once technical issues are resolved, a new baselining effort will commence. Once complete, the new performance baseline will be available for an External Independent Review and then be presented for approval to the Secretarial Acquisition Executive. Upon completion of the re-baseline effort this PDS will be formally revised and submitted to Congress.
(l) FY 2013 Enacted Appropriations reflect a reduction of $59,494,000 due to FY 2013 sequestration. Additionally there was a reprogramming of $166,150,000 from the Pretreatment Facility (E) control point with $120,000,000 going to the Low Activity Waste/Balance of Facilities/Analytical Laboratory/High Level Waste Facility (A-D) control point and $46,150,000 going to the Tank Farms Operations Contract.

01-D-16A-D, Low-Activity Waste Facility, Analytical Laboratory, Balance of Facilities, High-Level Waste Facility

(dollars in thousands)

	Appropriations	Obligations	Costs
Total Estimated Cost (TEC)			
Construction			
Prior[a]	1,891,449	1,891,449	1,715,169
FY 2006	373,244	373,244	361,714
FY 2007[b]	479,000	450,600	420,421
FY 2008[c]	433,023	461,423	488,268
FY 2009[d]	425,000	425,000	406,034
FY 2010	365,000	365,000	456,192
FY 2011	379,417	379,417	412,515
FY 2012	430,000	430,000	441,468
FY 2013	515,429	515,429	497,000
FY 2014	510,000	510,000	510,000
FY 2015	575,000	575,000	575,000
Outyears[e]	686,973	686,973	779,754

	(dollars in thousands)		
	Appropriations	Obligations	Costs
Total Construction	7,063,535	7,063,535	7,063,535

a) The prior year appropriations, obligations and costs have been updated to reflect utilization of the non-facility specific carryover funding remaining in the WTP line item 01-D-416. The FY 2005 line is based on facility costs prior the split of the WTP into the five facilities.
b) Ten percent of the FY 2007 Appropriation has been held back as a result of not achieving Secretarial certification of the contractor's Earned Value Management System by September 30, 2007. The certification was received in FY 2008, at which time the $69,000,000 will be obligated to the project. Balance of Facilities portion of the hold-back is $5,700,000.
c) FY 2008 Enacted Appropriations reflect a reduction of $1,301,000 due to the FY 2008 Government-wide Rescission of 0.91 percent.
d) Adjustments to the FY2009 costs from the data provided in previous Project Data Sheets are related to utilization of prior to FY2006 funding. This funding was not facility specific and the adjustments in costs are net zero across the five facilities. The change in cost for FY2009 is based on earned value data for FY2009.
e) A project re-planning effort commenced in the second quarter FY 2012. Once complete, the new baseline will be available for an External Independent Review and then be presented for approval to the Acquisition Executive. Upon completion of the re-baseline effort this Project Data Sheet will be formally revised and submitted to Congress.

01-D-16E, Pretreatment Facility

	(dollars in thousands)		
	Appropriations	Obligations	Costs
Total Estimated Cost (TEC)			
Construction			
Prior[a]	1,228,630	1,224,574	1,158,293
FY 2006	147,515	151,571	154,288
FY 2007[b]	211,000	170,400	130,570
FY 2008[c]	250,698	291,298	239,496
FY 2009[d]	265,000	265,000	310,579
FY 2010	325,000	325,000	334,293
FY 2011	359,280	359,280	382,219
FY 2012	310,000	310,000	305,000
FY 2013	118,927	118,927	192,000
FY 2014	180,000	180,000	180,000
FY 2015	115,000	115,000	115,000
Outyears[e]	1,688,415	1,688,415	1,697,727
Total Construction	5,199,465	5,199,465	5,199,465

a) The prior year appropriations and obligation have been updated to reflect utilization of the non-facility specific carryover funding remaining in the Waste Treatment and Immobilization Plant line item 01-D-416. The FY 2005 line is based on facility costs prior the split of the WTP into the five facilities.
b) The Waste Treatment and Immobilization Plant Project received an extra obligation of $4,056,000 in FY 2006 to recover a holdback in FY 2005.
c) Ten (10) percent of the FY 2007 Appropriation was held back as a result of not achieving Secretarial certification of the contractor's Earned Value Management System by September 30, 2007. The certification was received in FY 2008, at which time the $69,000,000 was obligated to the project. Pretreatment's portion of the hold-back is $40,600,000.

d) Adjustments to the FY2009 costs from the data provided in previous Project Data Sheets are related to utilization of prior to FY2006 funding. This funding was not facility specific and the adjustments in costs are net zero across the five facilities. The change is cost for FY2009 is based on earned value data for FY2009.

e) A project re-planning effort commenced in the second quarter FY 2012. Once complete, the new baseline will be available for an External Independent Review and then be presented for approval to the Acquisition Executive. Upon completion of the re-baseline effort this Project Data Sheet will be formally revised and submitted to Congress.

6. Details of Project Cost Estimate

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Total Estimated Cost (TEC)			
Design			
Total, Design	N/A	N/A	N/A
Construction			
Site Preparation	N/A	N/A	N/A
Engineering/Design	2,547,977	2,547,977	1,475,000
Equipment/Procurement[a]	2,380,748	2,380,748	1,125,000
Facility Construction[b]	3,720,637	3,720,637	2,155,000
Commissioning[c]	1,409,428	1,409,428	876,000
Technical Support/Transition[d]	185,000	185,000	50,000
Contingency/Fee[e]	2,019,210	2,019,210	100,000
Total, Construction	12,263,000	12,263,000	5,781,000
Total, TEC	12,263,000	12,263,000	5,781,000
Contingency, TEC	2,019,210	2,019,210	100,000
Other Project Cost (OPC)	N/A	N/A	N/A
Contingency, OPC			
Total, Total Project Cost	12,263,000	12,263,000	5,781,000
Total, Contingency	2,019,210	2,019,210	100,000

a) Equipment/Procurement dollars represent costs of plant equipment, bulk plant material, and acquisition services.
b) Facility Construction dollars represent construction costs through system turnover.
c) Commissioning dollars represent the cost of Start-up and Commissioning.
d) Technical Support/Transition represents the cost of Federal Assurance oversight support to the Federal Project Director and project transition costs.
e) Contingency/Fee dollars represent the contractor's Management Reserve, Fee, and DOE Project Contingency.

Note: A project re-baselining effort commenced in the 2nd quarter FY 2012. In the 4th quarter of FY 2012 the Design Completion Team was initiated to resolve project technical issues. A decision was made to delay the re-baselining effort until the Design Completion Team could address the technical issues. Once complete, the new performance baseline will be available for an External Independent Review and then be presented for approval to the Secretarial Acquisition Executive. Upon completion of the re-baseline effort this Project Data Sheet will be formally revised and submitted to Congress.

01-D-16A-D, Low-Activity Waste Facility, Analytical Laboratory, Balance of Facilities, High-Level Waste Facility

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline[e]
Total Estimated Cost (TEC)			
Design			
Total, Design	N/A	N/A	N/A
Construction			
Site Preparation	n/a	n/a	n/a
Engineering/Design	1,486,023	1,486,023	1,475,000
Equipment/Procurement[a]	1,345,590	1,345,590	1,125,000
Facility Construction[b]	2,154,763	2,154,763	2,155,000
Commissioning[c]	993,671	993,671	876,000
Technical Support/Transition	98,624	98,624	50,000
Contingency/Fee[d]	984,864	984,864	100,000
Total, Construction	7,063,535	7,063,535	3,861,000
Total, TEC	7,063,535	7,063,535	3,861,000
Contingency, TEC	570,100	570,100	n/a
Other Project Cost (OPC)	N/A	N/A	N/A
Contingency, OPC			
Total, TPC	7,063,535	7,063,535	3,861,000
Total, Contingency	984,864	984,864	100,000

a) Equipment/Procurement dollars represent of costs of plant equipment, plant material, and Acquisition Services.

b) Facility Construction dollars represent construction costs through system turnover.

c) Commissioning dollars represent the cost of Start-up, Cold Commissioning, and Hot Commissioning.

d) Contingency/Fee represents the contractor's Management Reserve, Fee, and DOE Project Contingency.

e) The value listed in the "Original Validated Baseline - Facility Construction" is a total number for all the values that would normally appear in this column.

01-D-16E, Pretreatment Facility

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline[e]
Total Estimated Cost (TEC)			
Design			
Total, Design	N/A	N/A	N/A
Construction			
Site Preparation	n/a	n/a	n/a
Engineering/Design	1,061,954	1,061,954	n/a
Equipment/Procurement[a]	1,035,158	1,035,158	n/a
Facility Construction[b]	1,565,874	1,565,874	1,920,000
Commissioning[c]	415,757	415,757	n/a

	(dollars in thousands)		
	Current Total Estimate	Previous Total Estimate	Original Validated Baseline[e]
Technical Support/Transition	86,376	86,376	n/a
Contingency/Fee[d]	1,034,346	1,034,346	n/a
Total, Construction	5,199,465	5,199,465	1,920,000
Total, TEC	5,199,465	5,199,465	1,920,000
Contingency, TEC	1,034,346	1,034,346	n/a
Other Project Cost (OPC)	N/A	N/A	N/A
Contingency, OPC			
Total, TPC	5,199,465	5,199,465	1,920,000
Total, Contingency	1,034,346]	1,034,346]	n/a

a) Equipment/Procurement dollars represent of costs of plant equipment, plant material, and Acquisition Services.

b) Facility Construction dollars represent construction costs through system turnover.

c) Commissioning dollars represent the cost of Start-up, Cold Commissioning, and Hot Commissioning.

d) Contingency/Fee represents the contractor's Management Reserve, Fee, and DOE Project Contingency.

e) The value listed in the "Original Validated Baseline - Facility Construction" is a total number for all the values that would normally appear in this column.

7. Schedule of Appropriation Requests

($K)

Request		Prior Years	FY 2014	FY 2015	FY 2016	FY 2017	FY2018	FY2019	Outyears	Total
FY 2002	TEC	4,350,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,350,000
	OPC	0	0	0	0	0	0	0	0	0
	TPC	4,350,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,350,000
FY 2003	TEC	4,350,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,350,000
	OPC	0	0	0	0	0	0	0	0	0
	TPC	4,350,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,350,000
FY 2004	TEC	4,350,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,350,000
	OPC	0	0	0	0	0	0	0	0	0
	TPC	4,350,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,350,000
FY 2005	TEC	5,781,000	0	0	0	0	0	0	0	5,871,000
	OPC	0	0	0	0	0	0	0	0	0
	TPC	5,781,000	0	0	0	0	0	0	0	5,871,000
FY 2006	TEC	5,781,000	0	0	0	0	0	0	0	5,781,000
	OPC	0	0	0	0	0	0	0	0	0
	TPC	5,781,000	0	0	0	0	0	0	0	5,781,000
FY 2007	TEC	5,781,000	0	0	0	0	0	0	0	5,781,000
	OPC	0	0	0	0	0	0	0	0	0
	TPC	5,781,000	0	0	0	0	0	0	0	5,781,000
FY 2008	TEC	8,509,520	690,000	690,000	690,000	690,000	690,000	303,480	0	12,263,000

($K)

Request		Prior Years	FY 2014	FY 2015	FY 2016	FY 2017	FY2018	FY2019	Outyears	Total
Performance	OPC	0	0	0	0	0	0	0	0	0
Baseline	TPC	8,509,520	690,000	690,000	690,000	690,000	690,000	690,000	0	12,263,000
	TEC	8,470,838	690,000	690,000	690,000	690,000	690,000	342,162	0	12,263,000
FY 2009	OPC	0	0	0	0	0	0	0	0	0
	TPC	8,470,838	690,000	690,000	690,000	690,000	690,000	690,000	0	12,263,000
	TEC	8,464,559	690,000	690,000	690,000	690,000	690,000	348,441	0	12,263,000
FY 2010	OPC	0	0	0	0	0	0	0	0	0
	TPC	8,464,559	690,000	690,000	690,000	690,000	690,000	690,000	0	12,263,000
	TEC	8,515,158	690,000	690,000	690,000	690,000	690,000	297,842	0	12,263,000
FY 2011	OPC	0	0	0	0	0	0	0	0	0
	TPC	8,515,158	690,000	690,000	690,000	690,000	690,000	690,000	0	12,263,000
	TEC	8,943,678	890,000	790,000	600,000	380,000	355,000	304,322	0	12,263,000
FY 2012	OPC	0	0	0	0	0	0	0	0	0
	TPC	8,943,678	890,000	790,000	600,000	380,000	355,000	304,322	0	12,263,000
	TEC	8,563,678	690,000	690,000					2,319,322	12,263,000
FY 2013	OPC	0	0	0					0	0
	TPC	8,563,678	690,000	690,000					2,319,322	12,263,000
	TEC	8,563,678	690,000	690,000					2,319,322	12,263,000
FY 2014	OPC	0	0	0					0	0
	TPC	8,563,678	690,000	690,000					2,319,322	12,263,000
	TEC	8,563,678	690,000	690,000					2,319,322	12,263,000
FY 2013 Reprogramming	OPC	0	0	0					0	0
	TPC	8,563,678	690,000	690,000					2,319,322	12,263,000
	TEC	8,508,035	690,000	690,000					2,374,965	12,263,000
FY 2015	OPC	0	0	0					0	0
	TPC	8,508,035	690,000	690,000					2,374,965	12,263,000

(a) A project re-baselining effort commenced in the 2nd quarter FY 2012. In the 4th quarter of FY 2012 the Design Completion Team was initiated to resolve project technical issues. A decision was made to delay the re-baselining effort until the Design Completion Team could address the technical issues. Once complete, the new performance baseline will be available for an External Independent Review and then be presented for approval to the Secretarial Acquisition Executive. Upon completion of the re-baseline effort this Project Data Sheet will be formally revised and submitted to Congress.

01-D-16A-D, Low-Activity Waste Facility, Analytical Laboratory, Balance of Facilities, High-Level Waste Facility

($K)

Request		Prior Years	FY 2014	FY 2015	FY 2016	FY 2017	FY2018	FY2019	Outyears	Total
FY 2008	TEC	5,075,985	350,000	365,000	389,000	336,300	352,715	0	0	6,869,000
Performance	OPC	0	0	0	0	0	0	0	0	0
Baseline	TPC	5,075,985	350,000	365,000	389,000	336,300	352,715	0	0	6,869,000
	TEC	5,037,303	355,500	365,500	389,000	353,700	367,997	0	0	6,869,000
FY 2009	OPC	0	0	0	0	0	0	0	0	0
	TPC	5,037,303	355,500	365,500	389,000	353,700	367,997	0	0	6,869,000
	TEC	5,021,023	330,000	375,000	492,000	430,000	675,977	0	0	7,324,000
FY 2010	OPC	0	0	0	0	0	0	0	0	0
	TPC	5,021,023	330,000	375,000	492,000	430,000	675,977	0	0	7,324,000
	TEC	5,056,622	330,000	355,000	455,000	465,000	662,378	0	0	7,324,000
FY 2011	OPC	0	0	0	0	0	0	0	0	0
	TPC	5,056,622	330,000	355,000	455,000	465,000	662,378	0	0	7,324,000
	TEC	5,238,142	405,000	395,000	425,000	425,000	777,777	0	0	7,063,535
FY 2012	OPC	0	0	0	0	0	0	0	0	0
	TPC	5,238,142	405,000	395,000	425,000	425,000	777,777	0	0	7,063,535
	TEC	5,293,215	510,000						1,770,320	7,063,535
FY 2013	OPC	0							0	0
	TPC	5,293,215							1,770,320	7,063,535
	TEC	5,293,215	565,000	565,000					640,320	7,063,535
FY 2014	OPC	0	0	0					0	0
	TPC	5,293,215	565,000	565,000					640,320	7,063,535
FY 2013	TEC	5,293,215	0	0					1,770,320	7,063,535
Reprogramming	OPC	0	0	0					0	0
	TPC	5,293,215	0	0					1,770,320	7,063,535
	TEC	5,236,562	565,000	575,000					686,973	7,063,535
FY 2015	OPC	0	0	0					0	0
	TPC	5,236,562	565,000	575,000					686,973	7,063,535

01-D-16E, Pretreatment Facility

($K)

Request		Prior Years	FY 2014	FY 2015	FY 2016	FY 2017	FY2018	FY2019	Outyears	Total
FY 2008	TEC	3,433,535	340,000	325,000	301,000	353,700	640,765	0	0	5,394,000
Performance	OPC	0	0	0	0	0	0	0	0	0
Baseline	TPC	3,433,535	340,000	325,000	301,000	353,700	640,765	0	0	5,394,000
	TEC	3,433,535	334,500	325,000	301,000	353,700	646,265	0	0	5,394,000
FY 2009	OPC	0	0	0	0	0	0	0	0	0
	TPC	3,433,535	334,500	325,000	301,000	353,700	646,265	0	0	5,394,000
	TEC	3,443,536	360,000	315,000	200,000	260,000	360,464	0	0	4,939,000
FY 2010	OPC	0	0	0	0	0	0	0	0	0
	TPC	3,443,536	360,000	315,000	200,000	260,000	360,464	0	0	4,939,000
	TEC	3,458,536	360,000	335,000	235,000	225,000	325,464	0	0	4,939,000
FY 2011	OPC	0	0	0	0	0	0	0	0	0
	TPC	3,458,536	360,000	335,000	235,000	225,000	325,464	0	0	4,939,000
	TEC	3,458,536	360,000	335,000	235,000	225,000	325,464	0	0	5,199,465
FY 2012	OPC	0	0	0	0	0	0	0	0	0
	TPC	3,458,536	360,000	335,000	235,000	225,000	325,464	0	0	5,199,465
	TEC	2,763,536	180,000	0					2,255,929	5,199,465
FY 2013	OPC	0	0	0					0	0
	TPC	2,763,536	180,000	0					2,255,929	5,199,465
	TEC	2,763,536	0	0					2,435,929	5,199,465
FY 2014	OPC	0	0	0					0	0
	TPC	2,763,536	0	0					2,435,929	5,199,465
FY 2013	TEC	2,763,536	0	0					2,435,929	5,199,465
Reprogramming	OPC	0	0	0					0	0
	TPC	2,763,536	0	0					1,929,002	5,199,465
	TEC	3,216,050	180,000	115,000					1,688,415	5,199,465
FY 2015	OPC	0	0	0					0	0
	TPC	3,216,050	180,000	115,000					1,688,415	5,199,465

8. Related Operations and Maintenance Funding Requirements

Start of Operation or Beneficial Occupancy (fiscal quarter or date)	1Q FY 2020
Expected Useful Life (number of years)	40
Expected Future Start of D&D of this capital asset (fiscal quarter)	TBD

(Related Funding requirements)

(Dollars in Thousands)

Annual Costs		Life Cycle Costs	
Current Total Estimate	Previous Total Estimate	Current Total Estimate	Previous Total Estimate
N/A	N/A	N/A	N/A

Operations will start after the project is completed. These costs are included in PBS ORP-0014, ORP - Radioactive Liquid Tank Waste Stabilization and Disposition project, and are therefore not included in this Project Data Sheet.

9. Required D&D Information

Area	Square Feet
N/A	N/A

This project is providing new capability for the Hanford site, and is not replacing a current capability. Thus, this project was not justified on the basis of replacing current facilities. Therefore, no existing facilities will be demolished in conjunction with this project.

10. Acquisition Approach

The acquisition of a waste treatment facility to treat Hanford waste was initially planned as a privatized procurement and the project was referred to as the Tank Waste Remediation System. The strategy was for the contractor to design, build, finance, and operate the facility for 10 years and the Department would pay for waste processed. Two privatization contracts were signed in September 1996 for the preparation of conceptual designs: (1) a subsidiary of BNFL plc, with Bechtel National, Incorporated as a subcontractor, and (2) Lockheed-Martin. In May 1998, BNFL, Incorporated was authorized to proceed with preliminary design. Construction was scheduled to commence in December 2000 and hot operations were to start in December 2007, to treat approximately 10 percent of the tank waste (by mass) and 25 percent of the tank waste radioactivity inventory. This plant was expected to have a 40 year operational life and would process a total of 40 percent of the waste by volume. A second plant would be necessary to treat and immobilize the balance of the waste. Planning associated with this privatization contract completed the following Critical Decision milestones:

- Critical Decision - 0: Approved Mission Need - September 1995
- Critical Decision - 1: Approved Preliminary Baseline Range - September 1996
- Critical Decision - 2: Approved Performance Baseline - August 1998

The project is being executed in accordance with the project management requirements in DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*. The following critical decisions were approved after the December 2000 award:

- Critical Decision - 3A: Approved Limited Construction - October 2001
- Critical Decision - 3B: Approved Preliminary Construction - May 2002
- Critical Decision - 3C: Approved Full Construction - April 2003
- Approval of Revised Cost and Schedule Baseline - December 2006

The following critical decision is planned for the future:
Critical Decision - 4: Approved Start of Operation – 1Q FY 2020. A project re-baselining effort commenced in the 2nd quarter FY 2012, in the 4th quarter of FY 2012 the Design Completion Team was initiated to resolve project technical issues. A decision was made to delay the re-baselining effort until the Design Completion Team could address the technical issues.

Once complete, the new performance baseline will be available for an External Independent Review and then be presented for approval to the Secretarial Acquisition Executive. Upon completion of the re-baseline effort this Project Data Sheet will be formally revised and submitted to Congress.

15-D-409
Low Activity Waste Pretreatment System, Hanford (ORP-0014)
Project for Design and Construction

1. Summary and Significant Changes

The most recent DOE O 413.3B approved Critical Decision (CD) is CD-0 that was approved in March 2014. Critical Decision-1 approval for this project is anticipated during the 1st quarter of FY 2015.

A Total Project Cost (TPC) for the project will be determined as the design matures and upon final baseline validation and approval at CD-2 which is anticipated to be the 3rd quarter of FY 2016.

A Federal Project Director has been assigned to the project.

This Project Data Sheet does include a new start for the budget year FY 2015.

This Project Data Sheet is new.

2. Critical Decision (CD) and D&D Schedule

(Fiscal Quarter or Date)

	CD-0	CD-1	Design Complete	CD-2	CD-3	CD-4	D&D Start	D&D Complete
FY 2015 Request	2Q FY2014	1Q FY2015	2Q FY2017	3Q FY2016	TBD	TBD	N/A	N/A

CD-0 – Approve Mission Need
CD-1 – Approve Alternative Selection and Cost Range
CD-2 – Approve Performance Baseline
CD-3A – Approve Start of Site Preparation
CD-3 – Approve Start of Construction
CD-4 – Approve Start of Operations or Project Closeout
D&D Start – Start of Demolition & Decontamination (D&D) work
D&D Complete – Completion of D&D work

(Fiscal quarter or date)

CD-3A Milestones	CD-3A	Long Lead Procurement	Site Preparation Complete
FY 2015 Request	TBD	TBD	TBD

3. Baseline and Validation Status

	(dollars in thousands)						
	TEC, Design	TEC, Construction	TEC, Total	OPC Except D&D	OPC, D&D	OPC, Total	TPC
FY 2015	60,000	TBD	TBD	TBD	0	TBD	TBD

Note: A Total Project Cost (TPC) for the project will be determined as the design matures and upon final baseline validation and approval at CD-2 which is anticipated to be the 2nd quarter of FY 2016.

4. Project Description, Justification and Scope

The mission of the River Protection Project is to protect the environment by retrieving and treating all of the tank wastes. The River Protection Project comprises both the Tank Farms and the Waste Treatment and Immobilization Plant located at the Hanford site in Washington State. The Tank Farms include 177 underground storage tanks (149 Single Shell Tanks and 28 Double Shell Tanks) with 56 million gallons of chemically hazardous radioactive waste from past nuclear processing operations. The Waste Treatment and Immobilization Plant is a multi-functional complex of facilities that will pre-treat and vitrify the tank waste in preparation for its final disposition. The Waste Treatment and Immobilization Plant is required by regulatory milestones to be operational in 2019. It is important that the tank waste be removed, treated, and stored before more leaks occur and before tanks and the associated infrastructure deteriorate further. The River Protection Project mission duration is driven by the ability to retrieve waste from the single shell and double shell waste tanks, close the tanks and ancillary equipment to accepted environmental standards, and immobilize the retrieved waste to an acceptable waste form.

This construction project data sheet summarizes the Environmental Management requirements for architect-engineering services, preliminary design, final design, and construction for the Low Activity Waste Pretreatment System. The design effort will be sufficient to assure project feasibility, define the scope, provide detailed estimates of construction costs based on approved design and working drawings and specifications, and provide construction schedules including procurements.

The project will be developed and conducted in accordance with the project management requirements in DOE O 413.3B, Program and Project Management for the Acquisition of Capital Assets, and all appropriate project management requirements will be met throughout project execution.

Mission Need

Due to technical issues, the startup dates for both the Waste Treatment and Immobilization Plant Pretreatment and High Level Waste facilities will be delayed beyond current baseline estimates. Provision of an Low Activity Waste Pretreatment System capability is required to provide Low Activity Waste feed to the Waste Treatment and Immobilization Plant Low Activity Waste facility in advance of the startup of the Pretreatment facility. The Low Activity Waste Pretreatment System would allow the Waste Treatment and Immobilization Plant to begin vitrifying low-activity tank waste significantly earlier than would otherwise be possible.

Scope and Justification

Low Activity Waste Pretreatment System would remove tank waste solids and cesium to produce a Low Activity Waste feed stream that meets the waste acceptance criteria of the Waste Treatment and Immobilization Plant Low Activity Waste vitrification facility. The system would feed pre-treated waste to the Waste Treatment and Immobilization Plant Low Activity Waste facility. The Low Activity Waste Pretreatment System design builds upon previous efforts – the Low Activity Waste Pretreatment System project (2007-2010) and the Hanford Tank Waste Supplemental Treatment Project (2011) - to most expeditiously complete efforts to startup the Waste Treatment and Immobilization Plant Low Activity Waste facility, Laboratory, and Balance of Facilities.

Design activities are required for the tank waste solids removal capability, and for cesium removal capability in or near the tank farm. Supporting system designs are required for the Low Activity Waste feed staging tanks (following pretreatment), for the transfer piping from the Low Activity Waste Pretreatment System to the Waste Treatment and Immobilization Plant Low Activity Waste vitrification facility, and for the cesium eluate tank that supports regeneration of the ion exchange resin.

The Low Activity Waste Pretreatment System design builds upon previous efforts – the Low Activity Waste Pretreatment System project (2007-2010) and the Hanford Tank Waste Supplemental Treatment Project (2011) - to most expeditiously complete efforts to startup the Waste Treatment and Immobilization Plant Low Activity Waste Facility, Laboratory, and Balance of Facilities to meet regulatory milestones. Low Activity Waste Pretreatment System along with Low Activity Waste vitrification operations also mitigates Waste Treatment and Immobilization Plant startup and commissioning risks, provides operational experience that can be applied to Pretreatment and High Level Waste facilities, provides relief to the close-coupled nature of Waste Treatment and Immobilization Plant operations, and potentially accelerates overall Low Activity Waste immobilization capacity through additional Low Activity Waste feed to both the Waste Treatment and Immobilization Plant Low Activity Waste facility and other Supplemental Low Activity Waste immobilization facilities.

5. Financial Schedule

(dollars in thousands)

	Appropriations	Obligations	Costs
Total Estimated Cost (TEC)			
Design			
FY 2015	23,000	23,000	22,000
Outyears	37,000	37,000	38,000
Total, Design	60,000	60,000	60,000
Construction			
Outyears	TBD	TBD	TBD
Total, Construction	TBD	TBD	TBD
TEC			
FY 2015	23,000	23,000	22,000
Outyears	TBD	TBD	TBD
Total, TEC	TBD	TBD	TBD
Other Project Cost (OPC)			
OPC except D&D			
FY 2014	10,000	10,000	8,000
FY 2015	0	0	2,000
Outyears	TBD	TBD	TBD
Total, OPC except D&D	TBD	TBD	TBD
OPC			
FY 2014	10,000	10,000	8,000
FY 2015	0	0	2,000
Outyears	TBD	TBD	TBD
Total, OPC	TBD	TBD	TBD
Total Project Cost (TPC)			
FY 2014	10,000	10,000	8,000
FY 2015	23,000	23,000	24,000
Outyears	TBD	TBD	TBD
Total, TPC	TBD	TBD	TBD

6. Details of Project Cost Estimate

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Total Estimated Cost (TEC)			
Design			
Design	50,000		N/A
Contingency	10,000		N/A
Total, Design	60,000		N/A

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Construction			
Building & Site Work	TBD		N/A
Contingency	TBD		N/A
Total Construction	TBD		N/A
Total, TEC	TBD		N/A
Contingency, TEC	TBD		N/A
Other Project Cost (OPC)			
OPC			
Conceptual Planning	7,200		N/A
Conceptual Design	2,800		N/A
Other, OPC	TBD		N/A
Total, OPC except D&D	TBD		N/A
Total, TPC	TBD		N/A
Total, Contingency	TBD		N/A

7. Schedule of Appropriation Requests

Request		Prior Years	FY 2014	FY 2015	Outyears	Total
FY 2015 Request	TEC	0	0	23,000	TBD	TBD
	OPC	0	10,000	0	TBD	TBD
	TPC	0	10,000	23,000	TBD	TBD

8. Related Operations and Maintenance Funding Requirements

Start of Operation or Beneficial Occupancy (fiscal quarter or date)	TBD
Expected Useful Life (number of years)	TBD
Expected Future Start of D&D of this Capital Asset (fiscal quarter)	TBD

(dollars in thousands)

	Annual Costs		Life Cycle Costs	
	Current Total Estimate	Previous Total Estimate	Current Total Estimate	Previous Total Estimate
Operations	TBD		TBD	
Utilities	TBD		TBD	
Maintenance	TBD		TBD	
Total, Operations & Maintenance	TBD		TBD	

9. Required D&D Information

Area	Square Feet
N/A	N/A

This project is providing new capability and is not replacing a current capability. Thus, this project was not justified on the basis of replacing current facilities. Therefore, no existing facilities will be demolished in conjunction with this project.

10. Acquisition Approach

An Acquisition Strategy for completion of the design and construction phase of this project is being developed to support Critical Decision-1 approval.

Savannah River

Overview

The Savannah River Site will support the Department's Strategic Plan to continue the cleanup of radioactive and chemical waste resulting from the Manhattan Project and Cold War activities. This has been demonstrated through the Site's successful removal of its legacy Transuranic waste, high level radioactive liquid waste removal and stabilization with subsequent closure of four high level waste tanks, and 50 years of successful spent (used) nuclear fuel receipts. The Savannah River Site Cleanup Project includes safely storing, treating, and disposing of a variety of radioactive and hazardous waste streams, cleaning up the environment, deactivating and decommissioning unneeded facilities, stabilization and immobilization of high level waste, and the secured storage of foreign and domestic nuclear materials including spent (used) nuclear fuel. The end-state of the Savannah River Site will be the elimination or minimization of nuclear materials, spent (used) nuclear fuel, and waste through safe stabilization, treatment, and/or disposition. All EM-owned facilities will be decommissioned once work scope is complete, except those identified for transfer to another Program Secretarial Office. Inactive waste units will be remediated and contaminated groundwater will either be remediated or be under remediation. Units where residual materials are left in place will be under institutional controls comprised of access restrictions and land use controls, inspections, maintenance, monitoring, and remedial measures/corrective action(s), as appropriate.

Direct maintenance and repair at the Savannah River Site is estimated to be $ 146,024,000.

Regulatory Framework

The DOE-Savannah River Operations Office and its contractors will continue to work proactively with the South Carolina Department of Health and Environmental Control, the Environmental Protection Agency-Region 4, the Nuclear Regulatory Commission, the Defense Nuclear Facilities Safety Board, oversight groups, and stakeholders to facilitate the accomplishment of the environmental cleanup and risk reduction objectives at Savannah River Site. There are several key agreements and enacted legislation that facilitate the cleanup of the Site. Subsequent to State-initiated enforcement actions, several key settlement agreements were entered into with the State of South Carolina:

- The Federal Facility Agreement for the Savannah River Site
- Resource Conservation and Recovery Act Permit
- South Carolina Industrial and Wastewater Permits
- Public Law 107-107, Section 3155, Disposition of Surplus Defense Plutonium at the Savannah River Site, Aiken, South Carolina
- Section 3137 of the National Defense Authorization Act for Fiscal Year 2001 (Public Law 106-398) as amended by Section 3115, of the National Defense Authorization Act for Fiscal Year 2004 (Public Law 108-136)
- The Savannah River Site Treatment Plan
- FY 2005 Saltstone Disposal Facility Industrial Solid Waste Landfill Permit
- Section 3116 of the Ronald W. Reagan National Defense Authorization Act
- Nuclear Cooperation Agreements

Contractual Framework

Program planning and management at Savannah River is conducted through the issuance and execution of contracts to large and small businesses. Savannah River develops near- and long-term planning approaches in order to develop contract strategies and program/project plans at a more detailed level. Selected contractors then execute these plans to complete cleanup on schedule. Current contracts at Savannah River include:

- Savannah River Nuclear Solutions LLC. This contract is an M&O contract for Management and Operation of the Savannah River site and covers remediation and decommissioning work at the site for the period August 1, 2008 - July 31, 2013 with options through July 31, 2018. DOE-SR has exercised 38 months of options through September 2016.
- Savannah River Remediation LLC. This contract covers liquid high-level waste vitrification and storage at the site for the period July 1, 2009, to June 30, 2015 with two (2) two-year options - July 1, 2015 to June 30, 2017 running simultaneously. The first option is for the continuation of the current work under the contract and the second option is for the operation of Salt Waste Processing Facility. This contract is a cost plus award fee term contract.

- Parsons Government Services, Inc. This contract covers construction, commissioning, and operations of the Salt Waste Processing Facility. Construction completion target date is December 31, 2016. Commissioning is currently expected to run through November 2018. One year of operations will follow through November 2019, with six months of support services following through May 2020. This contract is a cost plus incentive fee term contract.
- G4S Government Solutions, Inc. (Wackenhut). This contract covers the guard services at the Savannah River Site. The period of performance is January 1, 2010 - December 31, 2014 with two option periods - January 1, 2015 to December 31, 2017 and January 1, 2018 to December 31, 2019. It is a cost plus award fee term contract.
- Ameresco Federal Solutions. This contract is for the construction and operation of the Biomass Cogeneration Facility and Heating Plant. This delivery order is for the period May 15, 2009 - April 14, 2031. Ameresco will operate and maintain all constructed facilities until Delivery Order completion. It is a third party financed Energy Savings Performance contract.

Highlights of the FY 2015 Budget Request

The Liquid Waste Program will achieve additional risk reduction through canister production at the Defense Waste Processing Facility and disposition of salt waste in Saltstone Disposal Units. Construction will continue on the Salt Waste Processing Facility and Saltstone Disposal Unit 6. Receipt of foreign and domestic research reactor spent (used) nuclear fuel will continue. The Site will process aluminum clad spent (used) nuclear fuel in H Canyon and continue to operate and maintain regulatory required soil and groundwater remedial systems.

The FY 2015 request includes funding for two line item construction projects - Salt Waste Processing Facility ($135,000,000) and Saltstone Disposal Unit #6 ($37,336,000). The mission of the Salt Waste Processing Facility is to construct a facility to treat large quantities of waste from reprocessing and other liquids generated by nuclear materials production operations at the Savannah River site. Within the $135,000,000 requested for this project 05-D-405, $107,000,000 is for construction activities and $28,000,000 supports other project costs. The mission of the Saltstone Disposal Unit #6 project is to construct a cylindrical reinforced concrete tank designed to contain a minimum of 30 million gallons of Saltstone grout. The $37,336,000 requested for this project includes $34,642,000 for 15-D-402($2,475,000 for design activities; $32,167,000 for construction activities), and $2,694,000 for other project costs funded within PBS SR-0014C, Radioactive Liquid Tank Waste Stabilization and Disposition.

FY 2015 Key Milestones/Outlook

- (September 2015) Produce 120 high level waste canisters at DWPF
- (September 2015) Close one high level waste tank towards goal of closing four tanks by end of CY-2015
- (September 2015) Complete disposition of legacy transuranic waste
- (September 2015) Continue packaging and shipping surplus Pu for disposition to WIPP
- (September 2015) Receive FRR/DRR per approved schedule (approximately 10 to 15 shipments
- (September 2015) Begin Receipt of Canadian HEU Liquid
- (September 2015) Submit Site Evaluation Report /Engineering Evaluation)/Cost Analysis documents to State for D-Area ash basin and D-Area coal runoff pile and start removal actions for basin 488-D4 in D-Area

Strategic Management

The remediation cleanup approach at the Savannah River Site has five primary objectives:

- Reduce risks through stabilization, treatment and disposition of high level radioactive liquid waste;
- Complete construction and initiate operation of the Salt Waste Processing Facility to enhance liquid waste system disposition capabilities;
- Complete remedial actions and maintain remediation systems to achieve regulatory compliance;
- Continue to receive planned foreign and domestic research reactor spent (used) nuclear fuel; and
- Eliminate or minimize nuclear materials, spent (used) nuclear fuel and waste through safe stabilization, treatment and/or disposition of EM owned nuclear materials, spent (used) nuclear fuel, and waste.

The following factors present the strongest impacts to the overall achievement of the program's strategic goal:

- Deferral of scheduled scope to stabilize, treat, and dispose of high level radioactive liquid waste with subsequent closure of waste storage tanks, increases risk to environment and workers and extends the life cycle; and off-site disposition of the high-level waste and spent (used) nuclear fuel.

Savannah River
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 Request vs FY 2014 Enacted
Defense Environmental Cleanup						
Savannah River Site						
Radioactive Liquid Tank Waste Stabilization and Disposition						
SR-0014C / Radioactive Liquid Tank Waste Stabilization and Disposition-2035	685,960	690,533	0	690,533	722,817	+32,284
Savannah River Risk Management Operations						
SR-0011C / NM Stabilization and Disposition	264,903	272,000	0	272,000	259,910	-12,090
SR-0012 / SNF Stabilization and Disposition	40,259	44,684	0	44,684	42,707	-1,977
SR-0013 / Solid Waste Stabilization and Disposition	42,480	60,369	0	60,369	47,590	-12,779
SR-0030 / Soil and Water Remediation	50,119	55,438	0	55,438	66,069	+10,631
Subtotal, Savannah River Risk Management Operations	**397,761**	**432,491**	**0**	**432,491**	**416,276**	**-16,215**
SR Community and Regulatory Support						
SR-0100 / Savannah River Community and Regulatory Support	11,014	11,210	0	11,210	11,013	-197
Total, Savannah River Site	**1,094,735**	**1,134,234**	**0**	**1,134,234**	**1,150,106**	**+15,872**
Safeguards and Security						
SR-0020 / Safeguards and Security	119,549	121,196	0	121,196	132,196	+11,000
Total, Defense Environmental Cleanup	**1,214,284**	**1,255,430**	**0**	**1,255,430**	**1,282,302**	**+26,872**

Savannah River
Explanation of Major Changes ($K)

	FY 2015 Request vs FY 2014 Enacted
Defense Environmental Cleanup	
Savannah River Site	
Radioactive Liquid Tank Waste Stabilization and Disposition	
SR-0014C / Radioactive Liquid Tank Waste Stabilization and Disposition-2035	
• The increase is attributed to construction of the Saltstone Disposal Unit 6 to support saltstone disposal resulting from treatment and processing of liquid salt waste in the Actinide Removal Process and Modular Caustic Side Solvent Extraction Unit; and support of the Salt Waste Processing Facility construction, commissioning, and start-up activities.	+32,284
Savannah River Risk Management Operations	
SR-0011C / NM Stabilization and Disposition	
• The decrease reflects continued implementation of efficiencies in H-Area operations.	-12,090
SR-0012 / SNF Stabilization and Disposition	
• No significant change.	-1,977
SR-0013 / Solid Waste Stabilization and Disposition	
• The decrease reflects the successful removal of legacy transuranic waste.	-12,779
SR-0030 / Soil and Water Remediation	
• The increase reflects additional enforceable remediation activities to support the achievement of Resource Conservation and Recovery Act / Comprehensive Environmental Response, Compensation, and Liability Act milestones associated with C-Area and P-Area groundwater and A-Area Waste Units.	+10,631
SR Community and Regulatory Support	
SR-0100 / Savannah River Community and Regulatory Support	
• No significant change.	-197
Safeguards and Security	
SR-0020 / Safeguards and Security	
• The increase supports the replacement of the obsolete Electronic Safeguards and Security System with the security standard ARGUS electronic security system in H Canyon and the HB Line.	+11,000
Total, Savannah River	**+26,872**

Radioactive Liquid Tank Waste Stabilization and Disposition (PBS: SR-0014C)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This PBS supports the mission of the liquid waste program at the Savannah River Site, to safely and efficiently treat, stabilize, and dispose of approximately 37,000,000 gallons of remaining legacy radioactive waste currently stored in 47 underground storage tanks.

The Liquid Waste Program has reduced risk by:

- Produced over 3,700 canisters with more than 54 million curies immobilized in glass through the Defense Waste Processing Facility;
- Processed over 4 million gallons of salt waste though Actinide Removal Process and Modular Caustic Side Solvent Extraction;
- Disposed over 8 million gallons of low-activity waste in saltstone disposal units; and
- Emptied, cleaned and removed from service 6 high level waste storage tanks meeting the commitments in the Federal Facility Agreement.

The Savannah River Site plans to: reduce the volume of tank waste by evaporation to ensure that storage tank space is available to receive additional legacy waste from ongoing nuclear material stabilization and waste processing activities; pre-treat the radioactive waste as sludge and salt waste; vitrify sludge and high curie/high actinide radioactive waste at the Defense Waste Processing Facility into canisters and then store the canisters; treat and dispose of the low-level tank waste as saltstone grout; treat and discharge evaporator overheads through the Effluent Treatment Project; empty and permanently close in place using grout all waste tanks and support systems; and ensure that risks to the environment and human health and safety from tank waste operations are eliminated or reduced to acceptable levels.

To comply with state and federal regulatory agreements, all storage tanks must be empty by 2028 (Site Treatment Plan milestone). The Department started operating the Defense Waste Processing Facility in 1996 to vitrify high-level waste in a stable form and store it for eventual off-site disposal. The ability to safely process the salt component of the waste stored in underground storage tanks at Savannah River is a crucial prerequisite for completing liquid radioactive waste disposal. In order to relieve tank space shortages and assure that vitrification in the Defense Waste Processing Facility of the high-activity fraction of liquid waste will continue uninterrupted, the Actinide Removal Process and Modular Caustic Side Solvent Extraction Unit was started up in April 2008. This provides an interim processing capability to remove and treat salt waste from the tank farms to create additional tank space before the startup of the Salt Waste Processing Facility. It also provides Savannah River the opportunity to develop operating experience on a production-scale actinide and cesium removal processes which will be used to optimize the startup and initial operations of the high capacity Salt Waste Processing Facility. PBS SR-0014C also includes the design, construction, and operation of the Salt Waste Processing Facility to safely separate the high-activity fraction from the low-activity fraction of the salt waste stored in underground tanks at Savannah River. Processing salt waste through the Salt Waste Processing Facility is needed to maintain adequate tank space required to support Defense Waste Processing Facility operations, expedite processing of liquid waste consistent with the current strategy, and ensure that the site meets its Federal Facilities Agreement commitments for waste removal, the closure of non-compliant tanks and the Site Treatment Plan milestone to empty all tanks by 2028.

The late receipt of the Large ASME vessels (approximately 18 months) has impacted the construction completion schedule and Total Project Cost. An Independent Government Cost Estimate is currently being conducted. When negotiations with the contractor for commissioning are also completed, the project will be rebaselined and a new cost and completion date will be established.

PBS SR-0014C includes the design and construction of saltstone disposal units for the permanent disposal of the decontaminated salt solution (low-level waste) as saltstone grout. Saltstone Disposal Unit 6 construction will continue.

Radioactive Liquid Tank Waste Stabilization and Disposition-2035 (PBS: SR-0014C)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
690,533	**722,817**	**+$32,284**
• Provide site-wide services and landlord support functions for day-to-day operations. Sit-wide and Landlord Support services are prorated across the PBSs. • Continue operation of F and H Tank Farms. • Continue construction of Salt Waste Processing Facility (05-D-405) and commence work package closure. • Continue commissioning and start-up activities including system-operability testing, development of training programs, development of safety programs, testing of laboratory equipment and procurement of spare parts. • Operate the Defense Waste Processing Facility to produce 125 canisters. • Continue the Effluent Treatment Facility operations. • Operate Actinide Removal Process and Modular Caustic Side Solvent Extraction at 800K gallons. • Provide support to H Canyon operations for 100K gallons in receipts. • Continue operations of the Saltstone Facility. • Continue waste removal activities in support of sludge and salt batch preparation to feed the Defense Waste Processing Facility and Removal Process and Modular Caustic Side Solvent Extraction. • Complete closure activities for Tanks 5 and 6. • Continue construction of Saltstone Disposal	• Provide site-wide services and landlord support functions for day-to-day operations. Site-wide and Landlord Support services are prorated across the PBSs. • Maintain Tank Farms, including evaporators, and Defense Waste Processing Facility in a safe configuration, staffed and ready for operations. • Support planned construction, commissioning, and start-up activities for Salt Waste Processing Facility consistent with contract modification. • Operate Tank Farm activities, including waste transfers and removal. • Operate Actinide Removal Process and Modular Caustic Side Solvent Extraction salt processing at a rate of 1M gallons. • Operate Effluent Treatment Facility at planned rate. • Operate Defense Waste Processing Facility to produce 120 – 130 canisters. • Continue Saltstone Disposal Unit 6 construction activities to support low-activity salt disposal resulting from treatment and processing of liquid tank waste. • Continue Salt Disposition Integration activities to support future Salt Waste Processing Facility start-up and operations at planned rates. Continue construction of Saltstone receipt tanks. • Continue activities for an interim storage capacity for vitrified waste canisters.	• The increase is attributed to construction of the Saltstone Disposal Unit 6 to support saltstone disposal resulting from treatment and processing of liquid salt waste in the Actinide Removal Process and Modular Caustic Side Solvent Extraction Unit; and support of the Salt Waste Processing Facility construction, commissioning, and start-up activities.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
Unit 6. • Continue planning activities for an interim storage capacity for vitrified waste canisters. • Initiate sampling and analysis on Tank 12 and complete isolation design on Tank 16. • Support additional waste removal activities on Tank 16 and Tank 26 in support of sludge and salt batch preparation to feed the Defense Waste Processing Facility. • Support Salt Disposition Integration activities to support the future startup of the Salt Waste Processing Facility.		

NM Stabilization and Disposition (PBS: SR-0011C)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

H-Canyon/HB-Line will continue to process aluminum-clad spent (used) nuclear fuel.

The FY 2015 scope of work for H-Canyon/HB-Line includes:

- Packaging non-Moxable plutonium for disposition to the Waste Isolation Pilot Plant;
- Continue 235-F Defense Nuclear Facilities Safety Board Recommendation 2012-1 Implementation Plan actions;
- Continue receipt and processing of sample return materials from both the Savannah River National Laboratory and the F/H Analytical laboratory;
- Continue to process aluminum-clad spent (used) nuclear fuel in H-Canyon;
- Continue to dissolve plutonium in H-Canyon to provide feed for oxide production in HB-Line Phase II;
- Continue to produce Manufacturing Process Specification Oxide from Alternate Feed Stock 2 Plutonium material in HB-Line (NNSA funded); and
- Begin receipt of Canadian HEU Liquid (Canadian funded).

This PBS scope includes the Off-Site Fuels facility which has been de-inventoried, deactivated and placed in long-term surveillance, support risk reduction activities in the 235-F facility to meet commitments in the Implementation Plan for DNFSB Recommendation 2012-1 and provide for surveillance and maintenance of the F-Canyon complex which has been initially de-inventoried and deactivated.

Additional scope in this PBS is the operation of K-Area as a storage and surveillance facility for stabilized special nuclear materials. These Savannah River Site facilities will be operated in compliance with applicable laws, regulations, and DOE Orders. Special nuclear material is protected from theft and sabotage, including upgrade of protective capabilities, as appropriate. The special nuclear material will be managed until final disposition is accomplished.

The K-Area will continue to serve as a material storage facility for stabilized surplus non-pit plutonium materials. The K-Area Material Storage Facility will also continue to serve as an International Atomic Energy Agency control protocol facility for plutonium oxide. The K-Area Interim Surveillance capability performs necessary surveillance in accordance with DOE Standard-3013 and will also package non-MOXable plutonium for disposition to the Waste Isolation Pilot Plant.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
272,000	**259,910**	**-$12,090**
• Provide site-wide services and landlord support functions for day-to-day operations. Site-wide and Landlord Support services are prorated across the PBSs. • Continue surveillance and maintenance of the F Area Complex Facilities (F Canyon, FB-Line, and 235-F) as well as for the Receiving Basin for Off-Site Fuels Facility. • Perform surveillance of special nuclear materials in storage by destructive means in accordance with DOE-STD-3013 and the surveillance and monitoring plan in K Area. • Perform proficiency runs in H Canyon/HB-Line to maintain operator qualification and exercise process equipment. • Continue receipt and processing of sample return materials from both the Savannah River National Laboratory and the F/H Process laboratory. • Perform activities to reduce the risk to personnel and the environment by reducing the residual plutonium-238 contamination in the F Area Materials Storage Facility (235-F) as committed in Defense Nuclear Safety Facilities Board Recommendation 2012-1. • Complete processing at-risk Sodium Reactor Experimental vulnerable fuel and initiate dissolution of Materials Test Reactor Type aluminum-clad spent (used) nuclear fuel processing. • Continue to safely and securely manage special	• Provide site-wide services and landlord support functions for day-to-day operations. Site-wide and Landlord Support services are prorated across the PBSs. • Continue surveillance and maintenance of the F Area Complex Facilities (F Canyon, FB-Line, and 235-F) as well as for the Receiving Basin for Off-Site Fuels Facility. • Support surveillance of special nuclear materials in storage by destructive means in accordance with DOE-STD-3013 and the surveillance and monitoring plan in K Area. • Package non-MOXable plutonium oxide for disposition at WIPP. • Continue receipt and processing of sample return materials from both the Savannah River National Laboratory and the F/H Process laboratory. • Perform activities to reduce the risk to personnel and the environment by reducing the residual plutonium-238 contamination in the F Area Materials Storage Facility (235-F) as committed into a revised Implementation Plan for Defense Nuclear Safety Facilities Board Recommendation 2012-1. • Continue to process aluminum-clad spent (used) nuclear fuel. • Continue to safely and securely manage special nuclear materials. • Continue to receive Gap Plutonium from Foreign	• The decrease reflects continued implementation of efficiencies in H-Area operations.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
nuclear materials. • Continue to plan for / receive Gap Plutonium from foreign countries in support of the Global Threat Reduction Initiative program. • Continue to dissolve plutonium in H Canyon in support of HB-Line operations (HB-Line operations are incrementally by NNSA for advance MOX feed production). (NNSA funded) • Continue preparations for the receipt and processing of Canadian highly enriched uranium (HEU) Liquid. (Canadian funded) • Complete Final Storage Vault construction. • Initiate the third dissolver project. • Continue waste minimization activities. • Continue plutonium disposition activities.	Countries in support of the Global Threat Reduction Initiative program. • Dissolve plutonium from K-Area in support of oxide production in HB-Line for MOX feed. • Begin receipt and processing of Canadian highly enriched uranium (HEU) Liquid (Canadian funded). • Continue work on the third H-Canyon dissolver project.	

SNF Stabilization and Disposition (PBS SR-0012)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This PBS covers the scope and funding for the spent nuclear fuel originating from Atomic Energy Commission and DOE activities, and spent (used) nuclear fuel originating in both foreign and domestic research reactors being transferred to the Savannah River Site for safe, secure storage pending disposition. All spent nuclear fuel activities at Savannah River are conducted in a single area and consolidated for storage in L-Area Basin.

The end-state will be accomplished when all remaining Savannah River Site inventories of spent (used) nuclear fuel have been disposed, and when the spent nuclear fuel facilities have been deactivated and turned over for final disposition. Activities include: receipt of spent (used) nuclear fuel in L-Area Basin; cask unloading and preparation for underwater storage; cask loading; and shipments of irradiated and non-irradiated spent (used) nuclear fuel and miscellaneous legacy materials for disposition. A basin de-ionization system will be operated in support of fuel storage and water chemistry control requirements. Activities to ensure extended life of the L-Area Basin will be conducted as necessary to provide continued safe storage of spent (used) nuclear fuel nuclear materials including spent (used) nuclear fuel.

SNF Stabilization and Disposition (PBS: SR-0012)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
44,684	**42,707**	**-$1,977**
• Provide site-wide services and landlord support functions for day-to-day operations. Site-wide and Landlord Support services are prorated across the PBSs. • Provide safe storage for all spent (used) nuclear fuel stored in L Area. • Perform L-Basin life extension activities in support of planned spent (used) nuclear fuel receipts. • Continue facility surveillance and maintenance activities, including maintenance of equipment, facility, grounds, instrumentation, infrastructure, and reduce maintenance backlogs. • Continue receipt of foreign and domestic research reactor spent (used) nuclear fuel except for the High Flux Isotope Reactor fuel.	• Provide site-wide services and landlord support functions for day-to-day operations. Site-wide and Landlord Support services are prorated across the PBSs. • Provide safe, secure storage for spent (used) nuclear fuel stored in L Area. • Perform L-Basin life extension activities in support of planned spent (used) nuclear fuel receipts. • Conduct facility surveillance, maintenance, and modernization activities to include facility, grounds, instrumentation, and infrastructure. • Continue receipt of foreign and domestic research reactor spent (used) nuclear fuel. • Ship spent (used) nuclear fuel to H Canyon for disposition.	• No significant change.

SNF Stabilization and Disposition (PBS: SR-0012)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
• Continue shipping spent (used) nuclear fuel to H Canyon for processing. • Begin preparations to allow shipping of High Flux Isotope Reactor fuel to H Canyon. • Conduct scientific, applied research and technology development activities to assure safe extended storage of spent (used) nuclear fuel and stabilization of degraded fuel. • Continue research for dry storage capabilities for aluminum clad spent (used) nuclear fuel.		

Solid Waste Stabilization and Disposition (PBS: SR-0013)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This PBS scope covers the storage, treatment and disposal functions for transuranic, low-level, mixed low-level, hazardous, and sanitary waste, as well as pollution prevention, waste minimization, waste certification, and other waste management support functions. In addition, this project covers surveillance and maintenance for the Consolidated Incinerator Facility general Site infrastructure scope, and general Site functions that include land management activities to sustain natural resources and maintenance of Site's roads, bridges, and dams. The scope of this PBS will continue in support of all other Savannah River PBSs and will not conclude until after all area closures. The scope of this PBS also covers site-wide critical infrastructure needs to support site mission priorities (i.e., roads, roofs, bridges, electrical distribution).

Solid Waste Stabilization and Disposition (PBS: SR-0013)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
60,369	**47,590**	**-$12,779**
• Provide site-wide services and landlord support functions for day-to-day operations. Site-wide and Landlord Support services are prorated across the PBSs. • Maintain Solid Waste management facilities to support site operations, including the construction debris landfill. • Disposal of up to 7,100 m^3 of newly generated low-level waste. • Ship up to 300 kilograms of non-MOXable plutonium to WIPP. • Disposal of up to 30 m^3 of mixed low-level waste inventory. • Disposal of up to 85 m^3 of hazardous waste inventory. • Disposal of sanitary waste. • Continue waste certification program. • Complete disposal of up to 800 m^3 of legacy TRU	• Provide site-wide services and landlord support functions for day-to-day operations. Site-wide and Landlord Support services are prorated across the PBSs. • Maintain Solid Waste management facilities to support site operations, including the construction debris landfill. • Disposal of up to 7,000 m^3 of newly generated low-level waste. • Support the disposition of non-MOXable plutonium to the Waste Isolation Pilot Plant. • Disposal of up to 50 m^3 of mixed low-level waste inventory. • Disposal of up to 10 m^3 of hazardous waste inventory. • Disposal of sanitary waste. • Continue waste certification program. • Pursue shipment to the Waste Isolation Pilot Plant	• The decrease reflects the successful removal of legacy transuranic waste.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
waste. • Disposition plutonium and other waste from 235-F. • Complete infrastructure projects from the Site's Critical Infrastructure Plan including replacement of the Savannah River National Laboratory hot cell windows (maintain hot cell operations to support EM laboratory requirements), and replacement of the Savannah River National Laboratory fire suppression system (compliance issue – DNSFB concern) • Initiate closure of legacy TRU-waste pads under Federal and State regulations.	of all remaining legacy transuranic waste. • Disposition plutonium and other waste from Building 235-F deactivation. • Support characterization and shipment of newly generated transuranic waste including support for the Carlsbad Central Characterization Project. • Continue closure of legacy transuranic-waste pads under Federal and State regulations. • Perform general Site functions that include land management activities to sustain natural resources and maintenance of Site's roads, bridges, and dams. • Perform infrastructure projects from the Site's Critical Infrastructure Plan.	

Soil and Water Remediation (PBS: SR-0030)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The Soil and Water Remediation PBS scope includes the remediation of Savannah River Site contaminated soils and waste sites through commitments made to State and Federal Regulators through enforceable permits and the Federal Facility Agreement to reduce risk and to protect groundwater aquifers and surface waters from the spread of contamination by addressing the sources of contamination using an Area Completion Approach.

Operate and maintain 9 active soil and groundwater remedial systems and monitor 30 passive (natural attenuation) regulatory required soil and groundwater remedial systems to contain contaminant plumes within the SRS site boundary, and protect human health and the environment. Continue post-closure and post-Record of Decision care and surveillance and maintenance at 68 closed waste units (approximately 900 acres) and 40 surplus facilities to prevent deterioration, environmental releases, or structural failure. Monitor, perform analysis and report on over 2,000 groundwater wells (approximately 4,300 sampling activities) and 5 major streams, the Savannah River Floodplain Swamp and the Savannah River to demonstrate effectiveness of remedial systems.

An integral part of the cleanup mission for the Office of Environmental Management is the decommissioning of facilities constructed in support of nuclear materials production. This work was initially under PBS SR-0040C, Nuclear Facility decontamination and decommissioning – 2035, but has been combined with the work scope in PBS SR-0030, Soil and Water Remediation.

FY 2015 funding will allow the Site to meet FY 2015 compliance milestones.

Soil and Water Remediation (PBS: SR-0030)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
55,438	**66,069**	**+$10,631**
• Provide site-wide services and landlord support functions for day-to-day operations. Site-wide and Landlord Support services are prorated across the PBSs. • Achieve compliance with over 100 enforceable Federal Facility Agreement (Resource Conservation and Recovery Act/ Comprehensive Environmental Response, Compensation, and Liability Act) milestones and Resource	• Provide site-wide services and landlord support functions for day-to-day operations. Site-wide and Landlord Support services are prorated across the PBSs. • Achieve compliance with over 80 enforceable Federal Facility Agreement (Resource Conservation and Recovery Act/ Comprehensive Environmental Response, Compensation, and Liability Act) milestones and Resource	• The increase reflects additional enforceable remediation activities to support the achievement of Resource Conservation and Recovery Act / Comprehensive Environmental Response, Compensation, and Liability Act milestones associated with C-Area and P-Area groundwater and A-Area Waste Units.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
Conservation and Recovery Act permit commitments. • Operate and maintain 39 regulatory- required soil and groundwater remedial systems to protect groundwater aquifers, site streams, and the Savannah River. • Conduct post-closure and post-Record of Decision care and surveillance and maintenance at 68 closed waste units (approximately 900 acres) to prevent deterioration, and environmental releases. • Monitor, perform analysis and report on over 2,000 groundwater wells and 5 major streams, the Savannah River Floodplain Swamp, and the Savannah River to demonstrate effectiveness of remedial systems. • Perform surveillance and maintenance of Area Completion Projects inactive facilities to maintain safe and stable facility conditions including work in F-Area to further remove potential contamination material. • Perform design and commence field preparations for D Area Ash Units: temporary roads and entry access; barrow pit characterization and soil accumulation; abandon sluice line; and vegetation removal and ash consolidation. • Initiate deactivation of heat exchanger repair facilities (690-N and 745-N). • Provide Savannah River National Laboratory innovative groundwater and long-term monitoring technologies support.	Conservation and Recovery Act permit commitments. • Operate and maintain 39 regulatory- required soil and groundwater remedial systems (9 active & 30 passive) to protect groundwater aquifers, site streams, and the Savannah River. • Conduct post-closure and post-Record of Decision care and surveillance and maintenance at 68 closed waste units (approximately 900 acres) to prevent deterioration, and environmental releases. • Monitor, perform analysis and report on over 2,000 groundwater wells and 5 major streams, the Savannah River Floodplain Swamp, and the Savannah River to demonstrate effectiveness of remedial systems. • Perform surveillance and maintenance of Area Completion Projects inactive facilities to maintain safe and stable facility conditions. • Develop and issue Interim Record of Decision for C-Area Groundwater. • Characterize groundwater and prepare documentation to support Focused Corrective Measures Study/Feasibility Study for P Area Groundwater. • Initiate Remedial Start for A-Area Ash Pile, Coal Pile Runoff Basin and A-013 Storm-water Outfall. • Initiate dewatering activities and remediation of soil at the D-Area coal ash piles. • Develop and submit Interim Record of Decision for C-Area Groundwater.	

Soil and Water Remediation (PBS: SR-0030)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
• Achieve Resource Conservation and Recovery Act Facility Investigation/Remedial Investigation field start for P Area groundwater. • Issue fourth Five-Year Remedy Report. • Initiate remedial action for B Area Operable Unit. • Submit Early Action Statement of Basis/Proposed Plan in support of C Area Operable Unit. • Issue Record of Decision for Wetland Area at Dunbarton Bay in support of Steel Creek Integrator Operable Unit. • Initiate fifth Phase II Field Start for Steel Creek Integrator Operable Unit.	• Characterize groundwater and prepare documentation to support Focused Corrective Measures Study/Feasibility Study and remedy selection for P Area Groundwater.	

Savannah River Community and Regulatory Support (PBS SR-0100)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The scope of this project is to provide support that enables the Savannah River Site to perform its missions and cleanup objectives. Activities include Payments-In-Lieu-Of-Taxes for three South Carolina counties (Aiken, Allendale, and Barnwell); support to the Citizens Advisory Board (includes facilitators, technical advisors, meeting rooms, and other expenses); support to the States of South Carolina and Georgia for independent environmental monitoring and emergency management activities; and support for the South Carolina Department of Health and Environmental Control for oversight and implementation of the Federal Facility Agreement. The scope of this project also includes activities for geological surveys and natural resource management, and DOE Lease Agreements such as US Army Corps of Engineers and other lease agreements.

Savannah River Community and Regulatory Support (PBS: SR-0100)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
11,210	**11,013**	**-$197**
• Support Payments-in-Lieu-of-Taxes to Aiken, Allendale, and Barnwell counties. • Provide technical expertise in the conduct of geological surveys and natural resource management. • Provide support to South Carolina Department of Health Environmental Control for oversight of environmental monitoring, Federal Facility Agreement, Agreement in Principle, and Site Treatment Plan. • Provide support for Georgia and South Carolina Emergency Management Support. • Support Interagency Agreement for EPA Region 4 oversight of the Federal Facility Agreement. • Support the Site Specific Advisory Board (SR Citizen's Advisory Board).	• Support Payments-in-Lieu-of-Taxes to Aiken, Allendale, and Barnwell counties. • Provide technical expertise in the conduct of geological surveys and natural resource management. • Provide support to South Carolina Department of Health Environmental Control for oversight of environmental monitoring, Federal Facility Agreement, Agreement in Principle, and Site Treatment Plan. • Provide support for Georgia and South Carolina Emergency Management Support. • Support Interagency Agreement for EPA Region 4 oversight of the Federal Facility Agreement. • Support the Site Specific Advisory Board (SR Citizen's Advisory Board). • Support DOE Lease Agreements such as the US Army Corps of Engineers.	• No significant change.

Safeguards and Security (PBS: SR-0020)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The Savannah River Safeguards and Security Program protects nuclear materials, sensitive weapon and nuclear material production technology, equipment, information, facilities, and supports the Savannah River Site remediation and cleanup programs. These activities provide for overall site access security and protection of personnel and government property as part of EM's overall landlord responsibilities for the 310 square mile nuclear reservation.

Safeguards and Security (PBS: SR-0020)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
121,196	**132,196**	**+$11,000**
• Provide site-wide security services for day-to-day operations. • Operate and maintain the materials control and accountability program for special nuclear material. • Maintain appropriate uniformed protective force personnel to assure the security of special nuclear materials, facilities, and other site assets. • Operate and maintain physical security protection systems. • Ensure protection of classified and unclassified computer security. • Execute information and operational security measures, cyber security, personnel security and program management for the Savannah River Operations Office. • Continue activities for planned transfer of the remaining consolidated Environmental Management material access area to National Nuclear Security Administration control. • Supports safeguards and security enhancement scope for H-Area surplus weapons-usable fissile material disposition missions.	• Provide site-wide security services for day-to-day operations. • Operate and maintain the materials control and accountability program for special nuclear material. • Maintain appropriate uniformed protective force personnel to assure the security of special nuclear materials, facilities, and other site assets. • Operate and maintain physical security protection systems. • Ensure protection of classified and unclassified computer security. • Execute information and operational security measures, cyber security, personnel security and program management for the Savannah River Operations Office. • Continue activities for planned transfer of the remaining consolidated Environmental Management material access area to National Nuclear Security Administration control. • Replace obsolete Electronic Safeguards & Security System with ARGUS.	• The increase allows the replacement of the obsolete Electronic Safeguards and Security System with the security standard ARGUS electronic security system in H-Area.

Office of Environmental Management
FY 2015 Congressional Budget
Savannah River National Laboratory – EM Funding

(EM dollars in thousands)

Savannah River National Laboratory	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 Request vs FY 2014 Enacted
Environmental Management						
Defense Environmental Cleanup						
Savannah River	75,612	83,000	0	83,000	85,000	2000
EM HQ Technology Development	6,847	13,300	0	13,300	13,600	300
Office of River Protection	8,725	13,000	0	13,000	13,300	300
Paducah	175	350	0	350	360	10
Oak Ridge National Laboratory	161	200	0	200	204	4
Richland	104	120	0	120	122	2
Los Alamos National Laboratory	110	110	0	110	112	2
Idaho	30	50	0	50	52	2
Total	**91,764**	**110,130**	**0**	**110,130**	**112,750**	**2,620**

Savannah River National Lab (SRNL) receives a total of approximately $160-$200 million per year in support of Environmental Management, Clean Energy and National Security programs. The SRNL efforts are funded through DOE's Environmental Management (EM) program, other DOE organizations such as the National Nuclear Security Administration, and outside entities such as the Federal Bureau of Investigation, among others. The FY 2015 figures noted above are estimates based on planned continuation of FY 2014 scope. The actual usage of SRNL by the various user sites will determine the actual EM funding provided to the lab in FY 2014 and FY 2015.

Specifically for the Savannah River Site (SRS), SRNL provides support to EM, such as characterization and analysis support for Liquid Waste Program; flow sheet development and product characterization in support of the Nuclear Materials program; characterization and sample analysis in support of the solid waste program and environmental cleanup and monitoring program; and development of next generation cleanup technologies.

In addition to the direct support for EM SRS, SRNL also supports DOE-HQ and other EM DOE sites (Hanford, Paducah, Oak Ridge, Los Alamos, and Idaho) through provision of program and technical strategies for environmental remediation and risk reduction; development of processes to remediate high and low level wastes; technical oversight of test programs; conducting studies and developing mitigation strategies to address deleterious effects on materials used in environmental waste processes; and technical advice and technology development to address soil and groundwater radiological and chemical contamination.

Activities Supported by SRNL Funding

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
Savannah River		
$ 83,000	**$ 85,000**	**$ 2,000**
• Flowsheet development • Groundwater remediation technologies • Used fuel evaluations • Pu Surveillance Program – destructive and non-destructive characterization of 3013 canisters to determine that national standards are being met • General operational facility support including material characterization, equipment troubleshooting, evaluation of chemical issues, etc. • Support for 235-F deactivation and assessment activities • Tank waste technology development including means to separate the high activity radionuclides in order to disposition the high level waste along with various unit operations such as filtering, grinding, retrieval etc. • Nuclear materials packaging development and documentation • Waste characterization including sludge and salt characterization to support facility operations and tank closure analysis • Waste qualification and demonstration • Waste form development • Mixing studies including modeling and texting in order to demonstrate that waste tanks and processing tanks are adequately mixed	• Flowsheet development • Groundwater remediation technologies • Used fuel evaluations • Pu Surveillance Program – destructive and non-destructive characterization of 3013 canisters to determine that national standards are being met • General operational facility support including material characterization, equipment troubleshooting, evaluation of chemical issues, etc. • Support for 235-F deactivation and assessment activities • Tank waste technology development including means to separate the high activity radionuclides in order to disposition the high level waste along with various unit operations such as filtering, grinding, retrieval etc. • Nuclear materials packaging development and documentation • Waste characterization including sludge and salt characterization to support facility operations and tank closure analysis • Waste qualification and demonstration • Waste form development • Mixing studies including modeling and texting in order to demonstrate that waste tanks and processing tanks are adequately mixed	• No significant change.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
EM Headquarters		
13,300	**13,600**	**300**
• Nuclear Materials Packaging development and certifications • Support to HQ on revisions to DOE Order 435.1 and in support of the International Atomic Energy Agency (IAEA) • Technical studies for HQ including independent technical reviews, Technology Readiness Assessments, etc. • Long Term performance/durability studies of high and low level Waste Forms • Development and deployment of soil and groundwater remediation strategies and monitoring approaches • Development of D&D facility assessment and in situ decommissioning tools • Flowsheet Development – definition and testing of flowsheets for the processing of high level waste • Complete documentation of previously performed technical scope – studies on waste forms • Independent review and strategic development of remediation approaches at Legacy Management sites	• Nuclear Materials Packaging development and certifications • Support to HQ on revisions to DOE Order 435.1 and in support of the International Atomic Energy Agency (IAEA) • Technical studies for HQ including independent technical reviews, Technology Readiness Assessments, etc. • Long Term performance/durability studies of high and low level Waste Forms • Development and deployment of soil and groundwater remediation strategies and monitoring approaches • Development of D&D facility assessment and in situ decommissioning tools • Flowsheet Development – definition and testing of flowsheets for the processing of high level waste • Independent review and strategic development of remediation approaches at Legacy Management sites	• No significant change.
Office of River Protection		
13,000	**13,300**	**300**
• Waste form development & qualification – formulation of grouts and glass and the development of strategies to demonstrate	• Waste form development & qualification – formulation of grouts and glass and the development of strategies to demonstrate	• No significant change.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
compliance • Mixing and instrumentation studies of tanks in the Waste Treatment facility to ensure adequate mixing of waste prior to and during processing of waste • Flowsheet Development and evaluation – definition and testing of flowsheets, operating parameters, etc. for the processing of high level waste	compliance • Mixing and instrumentation studies of tanks in the Waste Treatment facility to ensure adequate mixing of waste prior to and during processing of waste • Flowsheet Development and evaluation – definition and testing of flowsheets, operating parameters, etc. for the processing of high level waste	
Paducah		
350	**360**	**10**
• Technical review for remediation design documents	• Technical review for remediation design documents	• No significant change.
Oak Ridge National Laboratory		
200	**204**	**4**
• Technical support for waste remediation	• Technical support for waste remediation	• No significant change.
Richland		
120	**122**	**2**
• Member of the DOE Low Level Waste Disposal Facility Federal Review Group (LFRG) review team for the Environmental Restoration Disposal Facility (ERDF) Performance Assessment PA)	• Member of the DOE Low Level Waste Disposal Facility Federal Review Group (LFRG) review team for the Environmental Restoration Disposal Facility (ERDF) Performance Assessment (PA)	• No significant change.
Los Alamos National Laboratory		
110	**112**	**2**
• Nuclear materials packaging studies • Technical assistance for groundwater remediation	• Nuclear materials packaging studies • Technical assistance for groundwater remediation	• No significant change.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
Idaho National Laboratory		
50	**52**	**2**
• Nuclear Materials Packaging Studies	• Nuclear Materials Packaging Studies	• No significant change.

Savannah River Capital Summary ($K)

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Current
Capital Operating Expenses Summary (including (Major Items of Equipment (MIE))							
Capital Equipment > $500K (including MIE)	3,000	0	0	0	0	3,000	3,000
Total, Capital Operating Expenses	**3,000**	**0**	**0**	**0**	**0**	**3,000**	**3,000**
Capital Equipment > $500K (including MIE)							
Savannah River							
MIE: Melter #4 (Direct replacement of existing melter)	3,000	0,000	0	0	0	3,000	3,000
Total, Savannah River	3,000	0	0	0	0	3,000	3,000
Total, Capital Equipment (including MIE)	**3,000**	**0**	**0**	**0**	**0**	**3,000**	**3,000**
Total, Capital Summary	**3,000**	**0**	**0**	**0**	**0**	**3,000**	**3,000**

Savannah River Construction Projects Summary ($K)

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
05-D-405, Salt Waste Processing Facility, Aiken, SC							
Total Estimate Cost (TEC)	1,422,122	1,150,613	72,509	92,000	92,000	107,000	+15,000
Other Project Costs (OPC)	171,983	103,020	7,963	33,000	33,000	28,000	-5,000
Total Project Cost (TPC) 05-D-405	1,594,105	1,253,633	80,472	125,000	125,000	135,000	+10,000
Saltstone Disposal Unit #6, SR (SR-0014C)							
Savannah River Tank Waste (SR-0014C)							
Total Estimate Cost (TEC)	127,628	3,984	12,413	34,618	34,618	0	-34,618
Other Project Costs (OPC)	15,572	3,753	1,995	2,178	2,178	0	-2,178
Subtotal, Saltstone Disposal Unit #6, SR (SR-0014C)	143,200	7,737	14,408	36,796	36,796	0	-36,796
15-D-402, Saltstone Disposal Unit #6, SR (SR-0014C)							
Total Estimate Cost (TEC)	0	0	0	0	0	34,642	+34,642
Other Project Costs (OPC)	0	0	0	0	0	2,694	+2,694
Subtotal, 15-D-402, Saltstone Disposal Unit #6, SR (SR-0014C)	0	0	0	0	0	37,336	+37,336
Total Project Cost (TPC) 15-D-402	143,200	7,737	14,408	36,796	36,796	37,336	+540

05-D-405
Salt Waste Processing Facility, Savannah River Site, Aiken, South Carolina
Project is for Construction Only (SR-0014C)

1. Significant Changes

The most recent Department of Energy (DOE) Order 413.3B approved Critical Decision (CD) is CD-3 which was approved on December 8, 2008, with a Total Project Cost of $1,339,548,000 and a Critical Decision-4, Start of Radioactive Operations, date in FY 2016.

A new Federal Project Director has been assigned to this project.

This Project Data Sheet is an update of the FY 2013 Reprogramming Project Data Sheet.

The project will breach its Total Project Cost. As a result, the DOE and its contractor are currently in negotiations for the final phase of the project, commissioning, to determine the new contract value, subsequent revised Total Project Cost, and completion date change. The Project Data Sheet represents the forecasted funding needs for FY 2015; subsequent funding year needs are to be determined. In the interim, the Deputy Secretary of Energy (Secretarial Acquisition Executive) has authorized an increase in the project and contract value of $330,000,000, consistent with contract changes for completion of construction, positioning the contractor to be able to exceed the current approved Total Project Cost of $1,339,548,000 up to $1,669,548,000 pending Acquisition Executive approval of a new baseline. For the FY 2015 request, the Total Project Cost increases to $1,594,105,000.

The negotiated current contract has been restructured to a Cost-Plus-Incentive Fee, plus cost cap arrangement for construction to go cost of $530M, as of January 1, 2013, which also includes construction and commissioning services.

The project requires additional funding due to the delay in the receipt of the 10 vessels which impacted both project cost and schedule. This delay contributed to a significant cost overrun. Construction Complete has been re-negotiated and the Contract Modification has been signed. Commissioning (within the scope of this project), and One Year of Operations and Six Months Support (outside the scope of this project) remain to be renegotiated.

In the FY 2014 Omnibus Appropriations Bill, Congress appropriated funding for the Total Project Cost (TPC) of Project 05-D-405 Salt Waste Processing Facility within the construction line-item account. In prior years, the construction line-item account only contained appropriations for the Total Estimated Cost portion of the project. Other Project Cost was included within PBS SR-0014C, Radioactive Liquid Tank Waste Stabilization and Disposition. In FY 2015, this project is requesting $135,000,000 for the TPC control point.

2. Critical Decision (CD) and D&D Schedule

(fiscal quarter or date)

	CD-0	CD-1	Design Complete	CD-2	CD-3	CD-4	D&D Start	D&D Complete
FY 2005	06/25/2001	4Q FY2004	4Q FY2005	4Q FY2005	4Q FY2005	4Q FY2008	N/A	N/A
FY 2006	06/25/2001	4Q FY2004	3Q FY2006	3Q FY2006	3Q FY2006	4Q FY2009	N/A	N/A
FY 2007	06/25/2001	4Q FY2004	1Q FY2008	3Q FY2007	3Q FY2007	1Q FY2011	N/A	N/A
FY 2008	06/25/2001	4Q FY2004	1Q FY2008	3Q FY2007	3Q FY2007	1Q FY2011	N/A	N/A
FY 2007 Notification	06/25/2001	4Q FY2004	4Q FY2008	4Q FY2007	4Q FY2008	1Q FY2014	N/A	N/A
FY 2009	06/25/2001	4Q FY2004	4Q FY2008	4Q FY2007	4Q FY2008	1Q FY2014	N/A	N/A
FY 2008	06/25/2001	4Q FY2004	4Q FY2008	4Q FY2007	1Q FY2009	1Q FY2014	N/A	N/A

(fiscal quarter or date)

	CD-0	CD-1	Design Complete	CD-2	CD-3	CD-4	D&D Start	D&D Complete
Reprogramming FY 2010	06/25/2001	4Q FY2004	4Q FY2008	4Q FY2007	1Q FY2009	1Q FY2016	N/A	N/A
FY 2011	06/25/2001	4Q FY2004	4Q FY2008	4Q FY2007	1Q FY2009	1Q FY2016	N/A	N/A
FY 2012	06/25/2001	4Q FY2004	4Q FY2008	4Q FY2007	1Q FY2009	1Q FY2016	N/A	N/A
FY 2013	06/25/2001	4Q FY2004	4Q FY2008	4Q FY2007	1Q FY2009	1Q FY2016	N/A	N/A
FY 2012 Reprogramming	06/25/2001	4Q FY2004	4Q FY2008	4Q FY2007	1Q FY2009	1Q FY2016	N/A	N/A
FY 2014 Request	06/25/2001	4Q FY2004	4Q FY2008	4Q FY2007	1Q FY2009	TBD	N/A	N/A
FY 2013 Reprogramming	06/25/2001	4Q FY2004	4Q FY2008	4Q FY2007	1Q FY2009	TBD	N/A	N/A
FY 2015 Request	06/25/2001	4Q FY2004	4Q FY2008	4Q FY2007	1Q FY2009	TBD	N/A	N/A

CD-0 – Approve Mission Need

CD-1 – Approve Alternative Selection and Cost Range

CD-2 – Approve Performance Baseline

CD-3 – Approve Start of Construction

CD-4 – Approve Start of Operations or Project Closeout

D&D Start – Start of Demolition & Decontamination (D&D) work

D&D Complete – Completion of D&D work

	(Fiscal Quarter or Date)							
	Performance Baseline Validation	CD-2/3A	CD-3B	CD-3				
FY 2005	N/A	N/A	N/A	N/A				
FY 2006	N/A	N/A	N/A	N/A				
FY 2007	N/A	N/A	N/A	N/A				
FY 2008	N/A	N/A	N/A	N/A				
FY 2007 Notification	4Q2007	4Q2007	2Q2008	N/A				
FY 2009	4Q2007	4Q2007	3Q2008	N/A				
FY 2008 Reprogramming	4Q2007	4Q2007	4Q2008	N/A				
FY 2010	4Q2007	4Q2007	4Q2008	1Q2009				
FY 2010	4Q2007	4Q2007	4Q2008	1Q2009				
FY 2012	4Q2007	4Q2007	4Q2008	1Q2009				
FY 2013	4Q2007	4Q2007	4Q2008	1Q2009				
FY 2012 Reprogramming	4Q2007	4Q2007	4Q2008	1Q2009				
FY 2014 Request	4Q2007	4Q2007	4Q2008	1Q2009				
FY 2013 Reprogramming	4Q2007	4Q2007	4Q2008	1Q2009				
FY 2015 Request	4Q2007	4Q2007	4Q2008	1Q2009				

CD-2/3A - Site Preparation, Early Construction and Long Lead Procurement
CD-3B - Early Construction and Long Lead Procurement

3. Baseline and Validation Status

(Fiscal Quarter)

	TEC, Design	TEC, Construction	TEC, Total	OPC Except D&D	OPC, D&D	OPC, Total	TPC
FY 2005	TBD	TBD	TBD or N/A	TBD	N/A	TBD or N/A	TBD or N/A
FY 2006	78,917	252,014	330,931	107,207	0	107,207	438,138
FY 2007	228,600	331,000	559,600	120,400	0	120,400	680,000
FY 2008	228,705	497,199	725,904	173,433	0	173,433	899,337
FY 2007 Notification	228,797	497,199	725,996	173,341	0	173,341	899,337
FY 2009	228,705	497,199	725,904	173,433	0	173,433	899,337
FY 2008 Reprogramming	243,705	482,199	725,904	173,433	0	173,433	899,337
FY 2010	243,705	895,151	1,138,856	200,692	0	200,692	1,339,548
FY 2011	243,705	895,151	1,138,856	200,692	0	200,692	1,339,548
FY 2012	243,705	895,151	1,138,856	200,692	0	200,692	1,339,548
FY 2013	243,705	895,151	1,138,856	200,692	0	200,692	1,339,548
FY 2012 Reprogramming	243,705	929,457	1,173,162	166,386	0	166,386	1,339,548[a]
FY 2014	243,705	929,457	1,173,162	166,386	0	166,386	1,339,548[a]
FY 2013 Reprogramming	243,705	1,071,417	1,315,122	166,386		166,386	1,481,508[a]
FY 2015	243,705	1,178,417	1,422,122	171,983	0	171,983	1,594,105[a]

[a] The DOE and its Contractor are currently in contract negotiations. Construction Complete has been re-negotiated and the Modification has been signed. Commissioning (within the scope of this project), and One Year of Operations and Six Months Support (outside the scope of this project) remain to be renegotiated. When completed, the project will be rebaselined; and new cost, completion date, risk profile, and contingency profile will be established.

4. Project Description, Scope, and Justification

Mission Need

This project scope includes construction of a facility to treat large quantities of waste from reprocessing and other liquids generated by nuclear materials production operations at the Savannah River Site. Approximately 37,000,000 gallons of this waste is being stored on an interim basis in 47 underground waste storage tanks. Of the 37,000,000 gallons, approximately 3,000,000 gallons are sludge waste and approximately 34,000,000 gallons are salt waste, consisting of 16,500,000 gallons of solid saltcake and 17,500,000 gallons of salt supernate. Waste volumes are subject to change because the supernate is evaporated to reduce its volume, sludge is being removed for processing and vitrification, and new waste is being transferred to the radioactive liquid waste tanks. In addition, water required for salt cake removal from the tanks and processing is presently expected to result in approximately 84 million gallons of salt and supernate solution to be processed. Continued, long-term storage of this liquid waste in underground tanks poses an environmental risk.

Scope and Justification (Salt Waste Processing Facility, 05-D-405)

To comply with state and federal regulatory agreements, all non-compliant storage waste tanks must be empty by 2028. The Department built the Defense Waste Processing Facility to vitrify radioactive liquid waste into a stable form and store it for eventual disposal in a geologic repository. The ability to safely process the salt component of the radioactive liquid waste stored in underground storage tanks at the Savannah River Site is a crucial prerequisite for completing radioactive

liquid waste disposal. Without a suitable method for salt management, the Department would not be able to place the radioactive liquid waste in a configuration acceptable for safe disposal.

This project scope includes design, construction, and cold commissioning of the Salt Waste Processing Facility to safely separate the high-activity fraction from the low-activity fraction of the radioactive liquid salt waste stored in underground tanks at the Savannah River Site. The Department has selected Caustic-Side Solvent Extraction as the preferred technology for separation of radioactive cesium from the salt wastes. Salt Waste Processing Facility processing also includes a separation step to remove strontium, uranium, plutonium and neptunium from the waste by sorption onto granular monosodium titanate followed by filtration.

The Salt Waste Processing Facility presently has a waste processing nameplate capacity of a nominal 7,300,000 gallons per year. The Salt Waste Processing Facility will consist of all buildings, equipment, and services required providing a fully functioning facility for processing salt waste. The Salt Waste Processing Facility will contain necessary process areas, service areas, chemical storage areas, and administrative areas. The process building will contain shielded processing cells and chemical processing equipment. In-cell tanks and components will be of a closed-cell design for ease of maintenance, replacement, and later decommissioning. The operating area will contain chemical feed pumps and tanks, hot and cold laboratories for testing samples, electrical and mechanical equipment areas, truck unloading area, and maintenance and decontamination areas. The chemical storage area will be located near the process building and will contain chemical storage tanks. Service and administrative spaces will be sized as required to accommodate the process facility.

A formal technical and programmatic risk assessment has been performed. The risk assessment concluded that the technical and programmatic risks are manageable.

The Savannah River Site Federal Facilities Agreement and Site Treatment Plan require production of (on average) 200 high-level waste canisters per year at the Defense Waste Processing Facility. In order to minimize total canister production and avoid future shutdowns or slowdowns of the Defense Waste Processing Facility, a coupled feed (both sludge and salt) must be established and maintained. At this time, the Salt Waste Processing Facility is on the critical path for establishing the coupled feed.

In response to Defense Nuclear Facility Safety Board concerns about the impacts of potential accidents involving radiological materials, the Department of Energy Savannah River Operations Office directed on November 23, 2005, development of an Enhanced Preliminary Design that implemented a Performance Category 3 confinement approach.

In May 2007, development of a bottom-up cost estimate was completed to support the Critical Decision-2 package and further adjusted based on comments received from an External Independent Review, which resulted in a project cost estimate of $899,337,000 which is $220,000,000 increase over an earlier rough order of magnitude estimate. The primary drivers for this increase were increased technical requirements resulting from the implementation of National Quality Assurance Standard 1 in lieu of International Standards Organization Standard 9001, resolution of structural/geotechnical issues, and additional Performance Category 3 requirements not identified during the initial rough order of magnitude estimate process. In addition, changes in how the project interpreted guidance on classification of Operating Funds as either Other Project Costs or Operating Costs accounted for approximately $53,000,000 of the $220,000,000 increase.

Early in the execution of Critical Decision 2/3A activities, design issues surrounding inability to secure sufficient critical design resources began to impact completion of design activities. This situation was further exacerbated by the volatility of the market, which began affecting the Critical Decision 3A procurements. Mitigation strategies were developed to deal with these issues. The revised Critical Decision 3 baseline was developed using the 90 percent design drawings, which estimated additional material and associated labor to install, and incorporating the cost of realized risk of material cost increases and design delays. The resulting baseline total project cost was $1,339,548,586, an increase of $440,211,586 over the Critical Decision 2 baseline estimate.

The cost and schedule confidence levels established at Critical Decision 3 in 2009 were a cost of $1,339,548,586 at a 95 percent confidence level and a completion date of October 2015, which includes 126 weeks of schedule contingency, at an 80 percent confidence level.

The project is being conducted in accordance with the project management requirements in DOE O 413.3B, Program and Project Management for the Acquisition of Capital Assets, and all appropriate project management requirements have been met.

In early FY 2012, the project began experiencing significant impacts associated with the delay in fabrication and delivery of a critical procurement of 10 large ASME vessels. These ongoing delays drove the Federal Project Director to require the contractor to develop a bottom-up Estimate at Completion to quantify the cost and schedule impacts. Upon receipt of this estimate, the DOE commissioned an independent government cost estimate and an independent cost estimate which will support an external independent review prior to a decision from the Secretarial Acquisition Executive on project path forward. The DOE and its Contractor are currently in negotiations to revise the contract. Once this is complete, a new Total Project Cost will be established; and a formal baseline change will be implemented.

5. Financial Schedule

	Appropriations	Obligations	Costs
Design			
FY 2003	4,842	4,842	0
FY 2004	51,198	51,198	11,539
FY 2005	23,469	23,469	30,204
FY 2006	34,990	34,990	48,195
FY 2007	104,296	104,296	75,600
FY 2008	24,910	24,910	57,863
FY 2009	0	0	16,588
FY 2010	0	0	3,716
Total, Design	243,705	243,705	243,705
Construction			
FY 2005	5,792	5,792	0
FY 2006	495	495	0
FY 2007	0	0	1,907
FY 2008	72,199	72,199	63,640
FY 2009	155,524	155,524	93,367
FY 2010	234,118	234,118	151,743
FY 2011	234,403	234,403	227,296
FY 2012[b]	204,377	204,377	197,479
FY 2013[c]	72,509	72,509	137,754
FY 2014	92,000	92,000	167,563
FY 2015	107,000	107,000	137,668
Total, Construction	1,178,417	1,178,417	1,178,417

	Appropriations	Obligations	Costs
TEC			
FY 2003	4,842	4,842	0
FY 2004	51,198	51,198	11,539
FY 2005	29,261	29,261	30,204
FY 2006	35,485	35,485	48,195
FY 2007	104,296	104,296	77,507
FY 2008	97,109	97,109	121,503
FY 2009	155,524	155,524	109,955
FY 2010	234,118	234,118	155,459
FY 2011	234,403	234,403	227,296
FY 2012[b]	204,377	204,377	197,479
FY 2013[c]	72,509	72,509	137,754
FY 2014	92,000	92,000	167,563
FY 2015	107,000	107,000	137,668
Total, TEC	1,422,122	1,422,122	1,422,122
Other Project Cost (OPC)			
OPC except D&D			
FY 2006	22,447	22,447	22,447
FY 2007	9,048	9,048	9,048
FY 2008	9,715	9,715	7,715
FY 2009	13,133	13,133	9,729
FY 2010	25,202	25,202	12,672
FY 2011	23,475	23,475	8,618
FY 2012[b]	0	0	8,044
FY 2013	7,963	7,963	19,237
FY 2014[e]	33,000	33,000	14,851
FY 2015[e]	28,000	28,000	59,622
Total, OPC except D&D	171,983	171,983	171,983
OPC			
FY 2006	22,447	22,447	22,447
FY 2007	9,048	9,048	9,048
FY 2008	9,715	9,715	7,715
FY 2009	13,133	13,133	9,729
FY 2010	25,202	25,202	12,672
FY 2011	23,475	23,475	8,618
FY 2012[b]	0	0	8,044
FY 2013	7,963	7,963	19,237
FY 2014	33,000	33,000	14,851
FY 2015	28,000	28,000	59,622

	Appropriations	Obligations	Costs
Total, OPC	171,983	171,983	171,983
Total Project Cost (TPC)			
FY 2003	4,842	4,842	0
FY 2004	51,198	51,198	11,539
FY 2005	29,261	29,261	30,204
FY 2006	57,932	57,932	70,642
FY 2007	113,344	113,344	86,555
FY 2008 [a]	106,824	106,824	129,218
FY 2009	168,657	168,657	119,684
FY 2010	259,320	259,320	168,131
FY 2011	257,878	257,878	235,914
FY 2012[b]	204,377	204,377	205,523
FY 2013[c]	80,472	80,472	156,991
FY 2014	125,000	125,000	182,414
FY 2015	135,000	135,000	197,290
Total, TPC [d]	1,594,105	1,594,105	1,594,105

a) Includes a Congressional Reprogramming of $15,000,000 from the construction project (05-D-405) to Project Engineering and Design (03-D-414).
b) FY 2012 includes a reduction in OPC funds and a corresponding increase in Total Estimated Cost funds of $34,305,510.
c) FY 2013 reflects a reprogramming resulting in a reduction in Total Estimate Cost funds of $83,888,565 as a result of funding under an annualized continuing resolution.
d) An Independent Government Cost Estimate has been completed. Contract negotiations are ongoing. Once completed, the project will be rebaselined; and new cost, completion date, risk profile, and contingency profile will be established.
e) Beginning in FY 2014, the OPC was appropriated from the construction line-item account. Prior to FY 2014, the OPC was appropriated within PBS SR-0014C, Radioactive Liquid Tank Waste Stabilization and Disposition.

6. Details of Project Cost Estimate

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Total Estimated Cost (TEC)			
Design			
Design	234,085	234,085	206,705
Contingency	9,620	9,620	37,000
Total, Design	243,705	243,705	243,705
Construction			
Site Preparation	27,263	27,263	27,263
Equipment	171,000	141,000	89,508
Other Construction	980,144	526,434	316,428
Contingency	10[a]	234,760	49,000
Total, Construction	1,178,417	929,457	482,199
Total, TEC	1,422,122	1,173,162	725,904

	(dollars in thousands)		
	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Contingency, TEC	10	244,380	86,000
Other Project Cost (OPC)			
OPC except D&D			
Conceptual Planning	0	0	0
Conceptual Design	14,133	14,133	14,445
Start-Up	59,597[a]	83,418	96,940
Contingency	0	30,450	22,000
Other OPC	98,253	38,385	40,048
Total, OPC except D&D	171,983	166,386	173,433
D&D			
D&D	0	0	0
Contingency	0	0	0
Total, OPC	171,983	166,386	173,433
Contingency, OPC	0	30,450	22,000
Total, TPC [a]	1,594,105	1,339,548	899,337
Total, Contingency	10	274,830	108,000

a) The DOE and its Contractor are currently in contract negotiations. Construction Complete has been re-negotiated and the Modification has been signed. Commissioning (within the scope of this project), and One Year of Operations and Six Months Support (outside the scope of this project) remain to be renegotiated. When completed, the project will be rebaselined; and new cost, completion date, risk profile, and contingency profile will be established.

7. Schedule of Appropriation Requests

Request		Prior Years	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Out-years	Total
FY 2004	TEC	69,000	N/A	N/A	N/A	N/A	N/A	N/A	TBD	69,000
	OPC	11,967	N/A	N/A	N/A	N/A	N/A	N/A	TBD	11,967
	TPC	80,967	N/A	N/A	N/A	N/A	N/A	N/A	TBD	80,967
FY 2005	TEC	69,000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	OPC	11,967	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	TPC	80,967	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FY 2006	TEC	336,040	0	0	0	0	0	0	0	336,040
	OPC	103960	0	0	0	0	0	0	0	103,960
	TPC	440,000	0	0	0	0	0	0	0	440,000
FY 2007 Performance Baseline	TEC	559,600	0	0	0	0	0	0	0	559,600
	OPC	120,400	0	0	0	0	0	0	0	120,400
	TPC	680,000	0	0	0	0	0	0	0	680,000
FY 2008	TEC	559,600	0	0	0	0	0	0	0	559,600

Request		Prior Years	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	Out-years	Total
	OPC	120,400	0	0	0	0	0	0	0	120,400
	TPC	680,000	0	0	0	0	0	0	0	680,000
FY 2007 Congressional Notification	TEC	688,908	28,532	8,556	0	0	0	0	0	725,996
	OPC	101,439	56,887	11,960	3,055	0	0	0	0	173,341
	TPC	790,347	85,419	20,516	3,055	0	0	0	0	899,337
FY 2009	TEC	688,816	28,532	8,556	0	0	0	0	0	725,904
	OPC	101,439	56,887	11,960	3,147	0	0	0	0	173,433
	TPC	790,255	85,419	20,516	3,147	0	0	0	0	899,337
FY 2010	TEC	968,784	170,071	1	0	0	0	0	0	1,138,856
	OPC	110,150	32,579	57,963	0	0	0	0	0	200,692
	TPC	1,078,934	202,650	57,964	0	0	0	0	0	1,339,548
FY 2011	TEC	946,236	170,071	22,549	0	0	0	0	0	1,138,856
	OPC	104,747	32,579	57,963	5,403	0	0	0	0	200,692
	TPC	1,050,983	202,650	80,512	5,403	0	0	0	0	1,339,548
FY 2012	TEC	946,236	204,377	22,549	0	0	0	0	0	1,173,162
	OPC	103,020	0	57,963	5,403	0	0	0	0	166,386
	TPC	1,049,256	204,377	80,512	5,403	0	0	0	0	1,339,548
FY 2013	TEC	946,236	204,377	72,549	0	0	0	0	0	1,173,162
	OPC	103,020	0	7,963	5,403	0	0	0	0	166,386
	TPC [a]	1,049,256	204,377	80,512	5,403	0	0	0	0	1,339,548
FY 2012 Reprogram-ming	TEC	946,236	204,377	72,549	0	0	0	0	0	1,173,162
	OPC	103,020	0	7,963	5,403	0	0	0	0	166,386
	TPC	1,049,256	204,377	80,512	5,403	0	0	0	0	1,339,548
FY 2014	TEC	946,236	204,377	171,112	92,000	0	0	0	0	1,413,725
	OPC	103,020	0	57,963	5,403	0	0	0	0	166,386
	TPC [a]	1,049,256	204,377	229,075	97,403	0	0	0	0	1,580,111
FY 2013 Reprogram-ming	TEC	946,236	204,377	72,509	92,000	0	0	0	0	1,315,122
	OPC	103,020	0	57,963	5,403	0	0	0	0	166,386
	TPC [a]	1,049,256	204,377	130,472	97,403	0	0	0	0	1,481,508
FY 2015	TEC	946,236	204,377	72,509	92,000	107,000	0	0	0	1,422,122
	OPC	103,020	0	7,963	33,000	28,000	0	0	0	171,983
	TPC [a]	1,049,256	204,377	229,075	125,000	135,000	0	0	0	1,594,105

a) The DOE and its Contractor are currently in contract negotiations. Construction Complete has been re-negotiated and the Modification has been signed. Commissioning (within the scope of this project), and One Year of Operations and Six Months Support (outside the scope of this project) remain to be renegotiated. When completed, the project will be rebaselined; and new cost, completion date, risk profile, and contingency profile will be established.

8. Related Operations and Maintenance Funding Requirements

Start of Operation or Beneficial Occupancy (fiscal quarter or date)	TBD
Expected Useful Life (number of years)	17
Expected Future Start of D&D	N/A

(Related Funding requirements)

(Dollars in Thousands)

	Annual Costs		Life Cycle Costs	
	Current Total Estimate	Previous Total Estimate	Current Total Estimate	Previous Total Estimate
Operations	63,443	63,443	1,083,957	1,083,957
Maintenance	10,785	10,785	184,273	184,273
Total, Operations & Maintenance	74,228	74,228	1,268,230	1,268,230

9. Required D&D Information

Area	Square Feet
N/A	N/A

This project is new construction which does not replace an existing facility. As part of the Office of Environmental Managements cleanup efforts, sites have established unique projects to perform Decontamination and Decommissioning. An estimated 2,108,087 square feet of buildings will have been removed from the Savannah River Sites inventory from Fiscal Year 2002 through Fiscal Year 2011. The square footage of this project will be offset against the Savannah River Site Decontamination and Decommissioning program's banked excess.

10. Acquisition Approach

The project acquisition strategy included the use of two separate contractors to perform conceptual design, which reduced project risk. Both contractors were awarded contracts in September 2002, and identified and managed technical and program risks through completion of conceptual design. Following completion of conceptual design, the Department selected one of the two contractors in January, 2004, to perform preliminary and final design, construction, commissioning, and one year of operations. Design services were obtained through a competed contract with an Engineering, Procurement, and Construction (EPC) contractor.

The project is currently negotiating construction close out and start-up commissioning. Management and Operating contactor staff will be involved in areas concerning high-level waste system interfaces, feed, and product specifications, etc.

15-D-402
Saltstone Disposal Unit #6
Savannah River Site, Aiken, SC
Project is for Design and Construction

1. Summary and Significant Changes

This project was originally executed as an operating funded capital asset project. Beginning in FY 2015, EM is requesting that the Total Estimated Cost (TEC) of this project be appropriated in the capital line item construction account. This data sheet includes a full accounting of the total project cost expended in prior years.

The most recent DOE O 413.3B Critical Decision is Critical Decision-2/3 (approval to start cell construction only) was approved on 7/16/2013 with a Total Project Cost (TPC) of $143,200,000 and Critical Decision-4 of 11/30/2018.
A Federal Project Director has been assigned to this project.

This Project Data Sheet does not include a new start for the budget year FY 2015

This Project Data Sheet is new.

2. Critical Decision (CD) and D&D Schedule

(fiscal quarter or date)

	CD-0	CD-1	Design Complete	CD-2	CD-3 Disposal Cell	CD-3 Balance of Plant	CD-4	D&D Start	D&D Complete
FY 2015 Request	03/25/2010	06/22/2012	4Q FY 2013	07/16/2013	07/16/2013	2Q FY2014	1Q FY2019	N/A	N/A

CD-0 – Approve Mission Need
CD-1 – Approve Alternative Selection and Cost Range
CD-2 – Approve Performance Baseline
CD-3 – Approve Start of Construction
CD-4 – Approve Start of Operations or Project Closeout
D&D Start – Start of Demolition & Decontamination (D&D) work
D&D Complete – Completion of D&D work

CD-1 The project originally had an approved CD-0/1 on March 25, 2010; however, the project was revised through a baseline change proposal on June 22, 2012.
CD-3 Disposal Cell – Approval to start disposal cell construction only
CD-3 Balance of Plant - Approval to start remaining project construction

3. Baseline and Validation Status

(Fiscal Quarter)

	TEC, Design	TEC, Construction	TEC, Total	OPC Except D&D	OPC, D&D	OPC, Total	TPC
FY 2015	20,458	107,170	127,628	15,572	0	15,572	143,200

4. Project Description, Scope, and Justification

Mission Need

The Saltstone Disposal Units are required to provide the primary containment of Saltstone grout with sufficient capacity to support site closure goals and salt waste projections identified in the Liquid Waste System Plan. The mission need addressed by this project is critical for the final disposition of the decontaminated salt solutions that is produced by the liquid waste system and without which the commitments made in the Federal Facilities Agreement with the State of South Carolina cannot be achieved.

Scope and Justification

This project proposes to design and construct Saltstone Disposal Unit #6. The Saltstone Disposal Unit #6 is a cylindrical reinforced concrete tank designed to contain a minimum of 30 million gallons of Saltstone grout. The scope of the project also includes the following infrastructure; saltstone delivery line, drain water return line, electrical power, ventilation and instrumentation which are necessary to connect and operate with the Saltstone Production Facility.

The Saltstone Facility, which was built in the 1980s, applies a process that immobilizes low level radioactive salt solution waste in grout. Dry materials are unloaded from dry bulk pneumatic trailers and conveyed to storage silos. The dry solids (fly ash, slag, and cement), are then discharged from the silos, weighed, and blended to produce a premix dry feed. Salt solution which is received from H-Area Waste Tank 50 through the Inter-area Transfer System through the Salt Feed Tank and premix are proportionally measured and fed to a mixer in the Saltstone Facility process room to produce a saltstone grout, which is pumped to the disposal units for permanent disposal. The grout hardens to form saltstone that is a leach-resistant, non-hazardous solid waste form as defined by South Carolina Department of Health and Environmental Control regulations. The combination of the monolithic non-hazardous solid saltstone waste form, concrete vault cell, and closure cap system controls migration of chemical and radioactive constituents to the environment.

The Saltstone Disposal Unit projects have been initiated to provide landfill capacity for receipt of Low Activity Treated Waste grout. The need for the Saltstone Disposal Units is driven by the Site Liquid Waste Disposition Program Plan to accomplish clean-up objectives. Saltstone Disposal Unit projects provide the benefits of lower disposal cost for decontaminated salt solutions. The grout itself provides primary containment of the waste, and the walls, floor, and roof of the Disposal Units provide secondary containment. Saltstone Disposal Unit #6 will be constructed to support planned salt processing production rates.

The need date for the Saltstone Disposal Unit is recorded in the 'Liquid Waste System Plan.' This plan documents the strategy of dispositioning the liquid waste in the tank farm and meeting the Federal Facility Agreement for tank closure. It is a living document that is routinely updated to account for any changes that may affect the liquid waste system (e.g., changes in technology, facility availability, etc.).

The project is being conducted in accordance with the project management requirements in DOE O 413.3B, Program and Project Management for the Acquisition of Capital Assets, and all appropriate project management requirements have been met.

5. Financial Schedule

(dollars in thousands)

	Appropriations	Obligations	Costs
Total Estimated Cost (TEC)			
Design			
FY 2012 [a]	3,984	3,984	3,984
FY 2013 [a]	9,824	9,824	9,824
FY 2014 [a]	1,676	1,676	1,676
FY 2015	2,475	2,475	2,450
FY 2016	1,264	1,264	1,251
FY 2017	1,235	1,235	1,273
Total, Design	20,458	20,458	20,458
Construction			
FY 2013[a]	2,589	2,589	2,589
FY 2014[a]	32,942	32,942	25,446
FY 2015	32,167	32,167	31,845
FY 2016	32,846	32,846	32,518
FY 2017	6,626	6,626	8,755
FY 2018			5,017
FY 2019			1000
Total, Construction	107,170	107,170	107,170
TEC			
FY 2012 [a]	3,984	3,984	3,984
FY 2013 [a]	12,413	12,413	12,413
FY 2014 [a]	34,618	34,618	27,122
FY 2015	34,642	34,642	34,295
FY 2016	34,110	34,110	33,769
FY 2017	7,861	7,861	10,028
FY 2018			5,017
FY 2019			1000
Total, TEC	127,628	127,628	127,628
Other Project Cost (OPC)			
OPC[a]			
FY 2012	3,753	3,753	3,753
FY 2013	1,995	1,995	1,995
FY 2014	2,178	2,178	2,178
FY 2015	2,694	2,694	2,694
FY 2016	2,626	2,626	2,626
FY 2017	2,326	2,326	1,345
FY 2018			491
FY 2019			490
Total, OPC	15,572	15,572	15,572

(dollars in thousands)

	Appropriations	Obligations	Costs
Total Project Cost (TPC)			
FY 2012	7,737	7,737	7,737
FY 2013	14,408	14,408	14,408
FY 2014	36,796	36,796	29,300
FY 2015	37,336	37,336	36,989
FY 2016	36,736	36,736	36,395
FY 2017	10,187	10,187	11,373
FY 2018			5508
FY 2019			1490
Total, TPC	143,200	143,200	143,200

[a] Funded through PBS SR-0014C.

6. Details of Project Cost Estimate

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Total Estimated Cost (TEC)			
Design [a]			
Design	17,490	N/A	17,490
Contingency	2,968	N/A	2,968
Total, Design	20,458	N/A	20,458
Construction			
Building & Site Work	81,361	N/A	81,361
Contingency	25,809	N/A	25,809
Total, Construction	107,170	N/A	107,170
Total, TEC	127,628	N/A	127,628
Contingency, TEC	28,777	N/A	28,777
Other Project Cost (OPC)			
OPC			
Conceptual Design	3,552	N/A	3,552
Start-Up	3,435	N/A	3,435
Contingency, OPC	3,506	N/A	3,506
Other, OPC	5,079	N/A	5,079
Total, OPC except D&D	15,572	N/A	15,572
Total, TPC	143,200	N/A	143,200
Total, Contingency	32,283	N/A	32,283

[a] Includes Title III.

7. Schedule of Appropriation Requests

Request		Prior Years	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Outyears	Total
FY 2015	TEC	16,397	25,017	34,642	34,110	17,462	0	0	0	127,628
	OPC	5,748	3,159	2,694	2,626	1,345	0	0	0	15,572
	TPC	22,145	28,176	37,336	36,736	18,807	0	0	0	143,200

8. Related Operations and Maintenance Funding Requirements

Start of Operation or Beneficial Occupancy (fiscal quarter or date)	11/30/2018
Expected Useful Life (number of years)	3-5
Expected Future Start of D&D	N/A

(Related Funding requirements)

(Dollars in Thousands)

	Annual Costs		Life Cycle Costs	
	Current Total Estimate	Previous Total Estimate	Current Total Estimate	Previous Total Estimate
Operations	700	N/A	3,500	N/A
Maintenance	37	N/A	185	N/A
Total, Operations & Maintenance	107	N/A	3,685	N/A

9. Required D&D Information

Area	Square Feet
N/A	N/A

The new construction is not replacing an existing facility.
Project licensed by the State of South Carolina as a landfill.

10. Acquisition Approach

The overall Acquisition approach is to build Saltstone Disposal Unit 6 at SRS in Z Area using Savannah River Remediation, LLC as the Prime Contractor to manage overall Saltstone Disposal Unit design and construction including any procurement actions and subcontracts, as necessary, for the site preparation, tank design, tank installation, and Balance of Plant (BOP) services and infrastructure necessary to make the tank fully operational to receive Saltstone grout in accordance with the Liquid Waste System Plan.

The procurement strategy for Saltstone Disposal Unit 6 is recommended to be different than the current procurement strategy for Saltstone Disposal Unit 3 & 5. Saltstone Disposal Unit 3 & 5 used a design and/or build approach which employed a General Contractor to partner with a specific Tank Vendor to complete the design and then construct the Saltstone Disposal Units. The strategy for Saltstone Disposal Unit 6 is a Design, Bid, Build approach where Savannah River Remediation, LLC will first complete the 100 % tank design and then enter the competitive market to receive proposals from General Contractors to execute the tank build phase.

Savannah River Remediation, LLC Design Engineering will use the Affiliate Agreement that Savannah River Remediation, LLC has with CH2MHILL to employ tank design experts, to augment current SRR Design Engineering staff, to design a large (nominal 30 million gallon) AWWA D110 Type I tank and then request proposals from General Contractors experienced in hydraulic concrete construction. Savannah River Remediation, LLC will utilize a Best Value approach to select the General Contractor. With this approach, it will be possible to consider multiple tank build subcontract awards for improved pricing and also to reward positive safety and construction execution performance with additional tank build options.

[a] Includes Title III.

7. Schedule of Appropriation Requests

Request		Prior Years	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Outyears	Total
FY 2015	TEC	16,397	25,017	34,642	34,110	17,462	0	0	0	127,628
	OPC	5,748	3,159	2,694	2,626	1,345	0	0	0	15,572
	TPC	22,145	28,176	37,336	36,736	18,807	0	0	0	143,200

8. Related Operations and Maintenance Funding Requirements

Start of Operation or Beneficial Occupancy (fiscal quarter or date)	11/30/2018
Expected Useful Life (number of years)	3-5
Expected Future Start of D&D	N/A

(Related Funding requirements)

(Dollars in Thousands)

	Annual Costs		Life Cycle Costs	
	Current Total Estimate	Previous Total Estimate	Current Total Estimate	Previous Total Estimate
Operations	700	N/A	3,500	N/A
Maintenance	37	N/A	185	N/A
Total, Operations & Maintenance	107	N/A	3,685	N/A

9. Required D&D Information

Area	Square Feet
N/A	N/A

The new construction is not replacing an existing facility.
Project licensed by the State of South Carolina as a landfill.

10. Acquisition Approach

The overall Acquisition approach is to build Saltstone Disposal Unit 6 at SRS in Z Area using Savannah River Remediation, LLC as the Prime Contractor to manage overall Saltstone Disposal Unit design and construction including any procurement actions and subcontracts, as necessary, for the site preparation, tank design, tank installation, and Balance of Plant (BOP) services and infrastructure necessary to make the tank fully operational to receive Saltstone grout in accordance with the Liquid Waste System Plan.

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Savannah River Remediation, LLC Design Engineering will use the Affiliate Agreement that Savannah River Remediation, LLC has with CH2MHILL to employ tank design experts, to augment current SRR Design Engineering staff, to design a large (nominal 30 million gallon) AWWA D110 Type I tank and then request proposals from General Contractors experienced in hydraulic concrete construction. Savannah River Remediation, LLC will utilize a Best Value approach to select the General Contractor. With this approach, it will be possible to consider multiple tank build subcontract awards for improved pricing and also to reward positive safety and construction execution performance with additional tank build options.

Lawrence Livermore National Laboratory

Overview

The Lawrence Livermore National Laboratory Site will support the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and cold war activities.

The Lawrence Livermore National Laboratory is a National Nuclear Security Administration multi-disciplinary research and development center focusing on weapons development and stewardship and homeland security. Cleanup of the Lawrence Livermore National Laboratory Main site led to the final disposition of legacy waste inventories and the build-out of the Lawrence Livermore National Laboratory Livermore Site Environmental Restoration Project. The Lawrence Livermore National Laboratory Hazardous Waste Management Program and Long-Term Stewardship associated with the Lawrence Livermore National Laboratory Main Site Environmental Restoration Project transferred from EM to National Nuclear Security Administration under Long-Term Stewardship at the end of FY 2006.

Lawrence Livermore National Laboratory Site 300 is a remote experimental testing facility where the Department conducts research, development, and testing of high explosives and integrated non-nuclear weapons components operated by the Lawrence Livermore National Security, Limited Liability Company. The site was placed on the U.S. Environmental Protection Agency's National Priority List in 1990 due to legacy contamination from past operations. Remedial action selection and buildout is complete for Operable Units 1 through 8, with the exception of perchlorate ground water contamination at Building 850 (which is part of Operable Unit 5). The responsibility for Long-Term Stewardship for the implemented cleanup remedies in Operable Units 1-8 has been transferred to the National Nuclear Security Administration. The remaining characterization and/or remedy selection and implementation for Building 812/Operable Unit 9, Building 865 (which is part of Operable Unit 8), and perchlorate contamination in Building 850/Operable Unit 5 ground water is the responsibility of Office of Environmental Management. Within the nine Operable Units, there are 73 contaminant release sites at Site 300, of which 69 have been completed.

Twenty-one groundwater and soil vapor extraction and treatment facilities at Lawrence Livermore National Laboratory Site 300 have been constructed and are operational. The soil removal action at the Building 850 Firing Table was completed in FY 2010. The remaining characterization and/or remedy selection and implementation for soil and groundwater for Building 812/Operable Unit 9, Building 865/Operable Unit 8, and perchlorate contamination in Building 850/Operable Unit 5 ground water are currently scheduled for completion by the end of FY 2019. Other activities associated with this cleanup work at Lawrence Livermore National Laboratory Site 300 are support for site investigations, hydrogeologic studies, and stakeholder liaisons; and payment of state grants.

The remaining EM investigations and actions at Lawrence Livermore National Laboratory Site 300 are required by the Lawrence Livermore National Laboratory Site 300 Federal Facility Agreement, Comprehensive Environmental Response Compensation and Liability Act and the National Contingency Plan. The Federal Facility Agreement describes remedial investigations and action requirements primarily by establishing schedules and deliverables. The Comprehensive Environmental Response Compensation and Liability Act and the National Contingency Plan provide the federal statutory and regulatory requirements for cleanup of legacy contamination.

The benefits of completing the remaining EM restoration work at Lawrence Livermore National Laboratory Site 300 include the overall reduction of potential human health and ecological risk by focusing on contaminant plumes and sources that are the greatest contributors to risk. The overall goal is to ensure that risks to the public and workers are controlled, followed by work to cleanup soil and groundwater using a risk-based methodology.

Highlights of the FY 2015 Budget Request

The majority of activities scheduled for FY 2015 are in support of the development of the Draft Building 812 Remedial Investigation/Feasibility Study, currently scheduled for submission to the regulatory agencies for review and comments in April 2015. Activities to support the development of this document include:

- Completion of the site-specific baseline human health and ecological risk assessment
- Development of risk-based soil cleanup standards for uranium in the Building 812 Operable Unit

- Completion of groundwater fate and transport modeling
- Screening of available soil remediation treatment technologies
- Development of soil remediation alternatives

FY 2015 Key Milestones/Outlook

- (Aug 2015) Final Proposed Plan for Building 812/OU9, Building 865, and Building 850 Perchlorate in Ground Water
- (Sep 2015) Public Meeting for Proposed Plan for Building 812/OU9, Building 865 and Building 850 Perchlorate in Ground Water.

Regulatory Framework

- Federal Facility Agreement with the US EPA and two State of California Regulatory Agencies (1992)
- Comprehensive Environmental Response, Compensation and Liability Act

Contractual Framework

The current contract with Lawrence Livermore National Security, LLC, for the operation of Lawrence Livermore National Laboratory is a Management and Operations contract. The current contract began in 2007 with a 7 year base and up to 13 one year award terms. Program planning and management at Lawrence Livermore National Laboratory is conducted through the issuance and execution of subcontracts to large and small businesses. Lawrence Livermore National Laboratory develops near- and long-term planning approaches in order to develop contract strategies and program/project plans at a more detailed level. Selected subcontractors then execute these plans to support the Site 300 cleanup project.

EM work is typically executed through work authorizations under NNSA's Management and Operations contract, with cleanup work typically performed by subcontractors.

Strategic Management

The Lawrence Livermore National Laboratory Site 300 remediation strategy meets the identified strategic goals of the Department of Energy by effectively and efficiently managing the project and ensuring the most efficient use of taxpayer funds.

The remediation strategy for Lawrence Livermore National Laboratory Site 300 employs a prioritized approach with an emphasis on risk reduction. In agreement with the regulatory agencies and neighboring community, the following priorities have been established:

- Prevent contamination of water supply wells and associated risk to human health and loss of beneficial uses of groundwater.
- Prevent exposure of onsite workers to contaminants and reduce the current unacceptable risk.
- Control and prevent further offsite plume migration.
- Reduce contaminant concentration and mass in the vadose zone and groundwater.
- Control contaminant sources.

The following factors could have significant impacts on individual projects and may impact the overall cleanup scope, schedule, and cost. Potential impacts follow:

- The major uncertainty is the remediation of the depleted uranium contaminated soil at the Building 812 Firing Table (Operable Unit 9).
- The challenges of the project include the excavation of soil from very steep terrain, large volumes of soil to be remediated and potential impacts to endangered species habitat and surface water drainage ways in the area during excavation and remediation.

Lawrence Livermore National Laboratory
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
NNSA Sites						
Lawrence Livermore National Laboratory						
VL-FOO-0013B-D / Solid Waste Stabilization and Disposition Support - Lawrence Livermore National Laboratory (Defense)	237	238	0	238	238	0
VL-LLNL-0031 / Soil and Water Remediation-Lawrence Livermore National Laboratory - Site 300	1,761	1,238	0	1,238	1,128	-110
Subtotal, Lawrence Livermore National Laboratory	**1,998**	**1,476**	**0**	**1,476**	**1,366**	**-110**

Lawrence Livermore National Laboratory
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup	
NNSA Sites	
Lawrence Livermore National Laboratory	
VL-LLNL-0031 / Soil and Water Remediation-Lawrence Livermore National Laboratory - Site 300	
• Decrease reflects completion of Building 812, Human Health and Ecological Baseline Risk Assessment.	-110
Total, Lawrence Livermore National Laboratory	**-110**

Solid Waste Stabilization and Disposition Support (PBS: VL-FOO-0013B-D)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The activities in this PBS support the EM cleanup activities at Site 300 that will be completed with the remediation of contaminated soil and build out of the remedy for remediation of ground water at the Building 812 Firing Table in Operable Unit 9, remedy selection and/or build out at Building 865 in Operable Unit 8, and remedy selection and build out for perchlorate in ground water at the Building 850 firing table in Operable Unit 5. Activities performed in this project will continue to provide funding for:

- Grants to the State of California Regional Water Quality Control Board and the California Department of Toxic Substances Control to provide Comprehensive Environmental Response, Compensation, and Liability Act oversight. This funding is mandated by the Federal Facility Agreement signed by DOE, Environmental Protection Agency, and the State of California.

- Site investigations, hydrogeologic studies, regulatory review, and stakeholder liaisons are also managed within this project through wide applicability of these restoration activities. This project will end when the EM environmental restoration activities at Site 300 as described above are completed, and these areas turned over to NNSA under Long Term Stewardship currently projected for FY 2020.

Solid Waste Stabilization and Disposition Support - Lawrence Livermore National Laboratory (Defense) (PBS: VL-FOO-0013B-D)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
238	**238**	**0**
• Support the Lawrence Livermore National Laboratory Site 300 Environmental Restoration Project and the grants with the State of California Regional Water Quality Control Board and Department of Toxic Substances.	• Support the Lawrence Livermore National Laboratory Site 300 Environmental Restoration Project and the State of California grants for oversight of the Comprehensive Environmental Response, Compensation, and Liability Act activities.	• No change.

Soil and Water Remediation (PBS: VL-LLNL-0031)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The remedial actions required by regulatory decision documents will reduce the risks, overall liability, and mortgage at Site 300 associated with the 4 remaining EM contaminant release sites:

- Release Site 0035: Building 865 (Advanced Test Accelerator)
- Release Site 0038: Building 812 Firing Table (Operable Unit 9)
- Release Site 0040: Building 850 Firing Table Ground Water Project (Building 850 portion of Operable Unit 5), and
- Release Site 0049: Building 812 Waste-Water Outflow (Operable Unit 9).

Additional characterization, the human health and ecological baseline risk assessment, and fate and transport modeling of the Building 812 Firing Table/Operable Unit 9 area is underway. The Treatability Study for Enhanced *In Situ* Bioremediation of Perchlorate in Ground water at Building 850/Operable Unit 5is planned to continue in FY 2014, and the Feasibility Study reviewed and approved in September 2014. The Building 865 Remedial Investigation/Feasibility Study has been reviewed by the regulatory agencies. Additional characterization has been requested for approval from the Remedial Investigation/Feasibility Study.

Remedial investigation and remedial build-out at the Building 812/Operable Unit 9, Building 865/Operable Unit 8, and for perchlorate in Building 850/Operable Unit 5 groundwater remain the responsibility of EM. When remedial investigations and remedial action selection build-out in these areas are complete, responsibility for the management and funding of Comprehensive Environmental Response; Compensation and Liability Act required Long-Term Stewardship activities will be transferred from EM to National Nuclear Security Administration.

Soil and Water Remediation-Lawrence Livermore National Laboratory - Site 300 (PBS: VL-LLNL-0031)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
1,238	**1,128**	**-$110**
• Complete Building 812, Human Health and Ecological Baseline Risk Assessment. • Continue the Treatability Study for Enhanced In Situ Bioremediation of Perchlorate in Ground water at Building 850/Operable Unit 5.	• Complete Building 812 Remedial Investigation/Feasibility Study. • Complete the Treatability Study for Enhanced In Situ Bioremediation of Perchlorate in Ground water at Building 850/Operable Unit 5.	• Decrease reflects completion of Building 812, Human Health and Ecological Baseline Risk Assessment.

Los Alamos National Laboratory

Overview

The Los Alamos National Laboratory Site will support the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and cold war activities.

Since its inception in 1943 as part of the Manhattan Project, the primary mission of the Los Alamos National Laboratory has been nuclear weapons research and development. In achieving this mission, the Laboratory released hazardous and radioactive materials to the environment through outfalls, stack releases, and material disposal areas. Mixed low-level waste and transuranic waste have been staged in preparation for off-site disposition to the Waste Isolation Pilot Plant or other offsite disposal locations.

Since 1989, the Environmental Management program at Los Alamos National Laboratory has been comprised of activities to address the characterization and cleanup of environmental media (i.e., soil and groundwater), disposition of legacy waste, and decontamination and decommissioning and demolition of process-contaminated facilities at Technical Area-21 (Material Disposal Areas: A, T, U and V), and waste management facilities at Technical Area -54 (Material Disposal Areas: G, H, and L), that allow for characterization and cleanup of Solid Waste Management Units which are collocated in the footprint of the structures. Los Alamos National Laboratory's highest priorities for the cleanup mission are to maintain safety, reduce urgent risk, and move toward compliance with the FY 2005 Consent Order. The Environmental Management program is operated by the Los Alamos National Security, Limited Liability Company under contract to the Department of Energy's National Nuclear Security Administration.

In FY 2012 the Department initiated discussions with the State of New Mexico to reprioritize the near term scheduled activities within the Consent Order based on a risk-based approach. This reprioritization is documented in the Framework Agreement and will extend the current completion date of the 2005 Consent Order past 2015.

Highlights of the FY 2015 Budget Request

By FY 2015, waste disposal at the Laboratory will have transitioned from the above-ground stored, non-cemented, transuranic waste disposition to the retrieval of the below-grade retrievable transuranic waste disposition. Pilot testing for groundwater remediation for hexavalent chromium extraction in Mortandad and Sandia Canyon watersheds will be nearing completion and large scale treatment or mitigation activities will be under development in FY 2015. Groundwater remedies will be determined for the high explosives plume in Cañon de Valle. Decontamination and Decommissioning and remediation campaigns will be in operation in Technical Area-21, the Laboratory property closest to Los Alamos County. Remediation activities on public and Los Alamos County properties will be able to be completed during FY 2015. The FY 2015 request will support the decision of the regulator for prompting remedy projects development or starts in at least three Material Disposal Areas (A, C, and T).

The FY 2015 request includes $31.1M for the Hexavelant Chromium Pump & Treat Remedy Project. The mission of this project is to support installation of a large-scale pump and treat system that will remove the chromium from the groundwater. Successful treatment of the groundwater in the Sandia Canyon and Mortandad Canyon watersheds is required to comply with state and federal regulatory agreements. The $31,000,000 requested for this project includes $28,600,000 for 15-D-406 ($4,600,000 for design activities; $24,000,000for construction activities), and $2,500,000 for other project costs funded within PBS VL-LANL-0030, Soil and Groundwater.

FY 2015 Key Milestones/Outlook

- (May 2015) 2015 Interim Facility-Wide Groundwater Monitoring Plan
- (May 2015) Annual Report Documenting Geomorphic Changes in LA and Pueblo Canyons
- (Sep 2015) Reach decision regarding disposition of 33 remote-handled transuranic waste shafts.
- (Sep 2015) Disposition 250 cubic meters from below grade retrievals

Regulatory Framework

The primary regulatory driver for the Environmental Management Projects at Los Alamos National Laboratory is the March 1, 2005, Compliance Order on Consent. The Consent Order, signed by the New Mexico Environment Department, Los Alamos National Laboratory and DOE, provides the primary requirements for the Los Alamos National Laboratory Environmental Restoration Project and establishes an enforceable schedule and milestones for corrective actions.

As a result of wildfires, the Department and the State of New Mexico have revisited the prioritization of activities at Los Alamos National Laboratory to ensure that the highest risk stored combustible transuranic waste can be addressed in an expeditious manner. In early FY 2012, the Department and the State developed a Framework Agreement which documents the shared commitment to reduce risks and propose revisions to the schedules of some compliance-driven, but lower risk activities.

Other drivers include the 1995 Federal Facilities Compliance Agreement, Public Law 105-119, 10 Code of Federal Regulations, Part 830, Nuclear Safety Management, a hazardous waste facility permit for storage and treatment, Federal Facility Compliance Order, the Atomic Energy Act, the Toxic Substances Control Act, the Resource Conservation and Recovery Act, the Clean Air Act, Settlement Agreement and Stipulated Final Order (Chromium) 2007and the Individual Permit issued by the U. S. Environmental Protection Agency in February 2009 for storm water management at Los Alamos National Laboratory.

Contractual Framework

Program planning and management at Los Alamos National Laboratory is conducted through the issuance and execution of contracts to large and small businesses. Los Alamos National Laboratory develops near-term and long-term planning approaches in order to develop contract strategies and program/project plans at a more detailed level. Selected contractors then execute these plans to complete cleanup on schedule. The current contract at Los Alamos National Laboratory is a Management and Operations contract. The contract performance period runs through September 30, 2018 with the potential to extend until September 30, 2026.

EM work is typically executed through work authorizations under NNSA's Management and Operations contract, with cleanup work typically performed by subcontractors.

Strategic Management

The cleanup strategy at the Los Alamos National Laboratory involves the following activities:

- As a result of the wildfires in 2011, the Department and the State of New Mexico have reprioritized some activities at Los Alamos National Laboratory to ensure the highest risk of stored combustible transuranic waste can be addressed in an expedited manner.
- Continued retrieval and disposition of legacy Transuranic waste, closure of multiple Resource Conservation and Recovery Act operable units, decommissioning and decontamination of excess facilities at Technical Area-54, and final remedy and site completion at remaining Solid Waste Management Units will drive the critical path for completion of the Compliance Order on Consent between LANL and the regulator.
- Assessments and corrective actions at contaminated sites to reduce unacceptable human health and ecological risks and reduce the inventory of legacy transuranic waste.
- Restoration strategy is risk-based and complies with regulatory requirements to provide for future land use.
- Decontamination, decommissioning, and demolition of process-contaminated facilities at Technical Area-21 and waste management facilities at Technical Area-54 allows for the characterization and cleanup of Solid Waste Management Units which are co-located in the footprint of the structures.

The following factors and assumptions could have significant impacts on individual projects and may impact the overall cleanup scope, schedule, and costs identified:

- Pending successful fulfillment of the highest risk transuranic waste removal milestone within the Framework Agreement, the Department and the State plan to negotiate revisions to the schedules of the compliance-driven milestones within the consent order.
- In most cases, it is assumed that monitored natural attenuation for groundwater will be accepted as the remedy rather than active remediation processes that can be more expensive and longer in duration. FY 2014 activities indicated that an active remediation process may be implemented in several groundwater areas before a reliance on monitored natural attenuation could be relied on, thus possibly adversely impacting the current completion estimates.
- It is assumed that regulators will approve cleanup levels for individual sites that correspond to the intended land use, thereby leaving in place some contaminants that do not pose unacceptable health and environmental risks.

Los Alamos National Laboratory
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
NNSA Sites						
Los Alamos National Laboratory						
VL-FAO-0101 / Miscellaneous Programs and Agreements in Principle	2,355	4,103	0	4,103	2,355	-1,748
VL-LANL-0013 / Solid Waste Stabilization and Disposition-LANL Legacy	124,843	119,686	0	119,686	90,000	-29,686
VL-LANL-0030 / Soil and Water Remediation-LANL	64,835	100,000	0	100,000	123,262	+23,262
VL-LANL-0040-D / Nuclear Facility D&D-LANL (Defense)	0	1,000	0	1,000	9,000	+8,000
Subtotal, Los Alamos National Laboratory	**192,033**	**224,789**	**0**	**224,789**	**224,617**	**-172**

Los Alamos National Laboratory
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup	
NNSA Sites	
Los Alamos National Laboratory	
VL-FAO-0101 / Miscellaneous Programs and Agreements in Principle	
• Decrease reflects efforts to improve coordination in independent, third-party, environmental monitoring programs.	-1,748
VL-LANL-0013 / Solid Waste Stabilization and Disposition-LANL Legacy	
• Decrease reflects completion of the campaign to remove 3,706 cubic meters of above-grade transuranic waste by June 30, 2014, in accordance with the Framework Agreement.	-29,686
VL-LANL-0030 / Soil and Water Remediation-LANL	
• Increase reflects implementation of a line-item construction project (15-D-406) to provide for chromium plume remediation in Mortandad and Sandia canyons and supports project development activities for removal of General Tanks at Technical Area-21.	+23,262
VL-LANL-0040-D / Nuclear Facility D&D-LANL (Defense)	
• Increase reflects the start of active deactivation and decommissioning activities for the balance of plant facilities within Technical Area-21 in accordance with the Consent Order.	+8,000
Total, Los Alamos National Laboratory	**-172**

Miscellaneous Programs and Agreements in Principle (PBS: VL-FAO-0101)

Overview

This PBS is within the Defense Environmental Cleanup appropriation.

This PBS provides support for the New Mexico Agreement in Principle and the Natural Resource Damage Assessment at Los Alamos National Laboratory. A pre-assessment screening, representing the first phase of a Natural Resource Damage Assessment for the Los Alamos National Laboratory site, has been completed, and the Los Alamos National Laboratory Natural Resource Trustee Council has begun the full assessment.

Miscellaneous Programs and Agreements in Principle (PBS: VL-FAO-0101)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
4,103	**2,355**	**-$1,748**
• Support the New Mexico Agreement in Principle including Regional Coalition activities. • Support the Natural Resource Damage Assessment including preliminary assessment development and Trustee Council activities. • Support the Los Alamos Pueblo Program to develop and implement environmental monitoring programs for air, soil, and water and establish an independent monitoring program.	• Support the New Mexico Agreement in Principle including Regional Coalition activities. • Support the Natural Resource Damage Assessment including preliminary assessment development and Trustee Council activities. • Support the Los Alamos Pueblo Program to develop and implement environmental monitoring programs for air, soil, and water and establish an independent monitoring program.	• Decrease reflects efforts to improve coordination in independent, third-party, environmental monitoring programs.

Solid Waste Stabilization and Disposition-LANL Legacy (PBS: VL-LANL-0013)

Overview

This PBS is within the Defense Environmental Cleanup appropriation.

The Solid Waste Stabilization and Disposition PBS, also known as the Legacy Waste Disposition PBS, is comprised of the characterization, treatment, storage, transportation, and ultimate disposition of legacy transuranic and mixed low-level waste generated between 1970 and 1999 at the Los Alamos National Laboratory. The end-state of this project is the safe disposal of legacy waste from Los Alamos National Laboratory.

This PBS scope is integrated with the Soil and Water Remediation PBS (PBS-VL-LANL-0030) which includes compliance activities associated with the New Mexico Environment Department 2005 Compliance Order on Consent. The other drivers requiring disposition of this waste is DOE Order 435.1-1, Radioactive Waste Management and the Site Treatment Plan developed under the authority of the 1995 Federal Facility Compliance Agreement between the National Nuclear Security Administration and the Environmental Protection Agency. The Solid Waste Stabilization and Disposition PBS includes disposition of legacy and newly generated, mixed, low-level waste. Transuranic Waste Operations continue under Carlsbad Field Office's Central Characterization PBS and the Los Alamos National Laboratory for contact- and remote-handled transuranic waste retrieval and disposition.

Solid Waste Stabilization and Disposition-LANL Legacy (PBS: VL-LANL-0013)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
119,686	**90,000**	**-$29,686**
• Complete campaign to remove 3,706 cubic meters of combustible, above grade transuranic waste, consistent with the Framework Agreement with the State of New Mexico. • Continue Solid Waste Stabilization and Disposition services and actions to maintain safe operations associated with the stored transuranic inventory such as safe configuration and within prescribed Material-at-Risk limits and in fulfillment of Framework Agreement milestones. • Initiate retrieval and processing of transuranic wastes from Trenches A-D and Pit -9. • Initiate planning for below grade transuranic	• Continue Solid Waste Stabilization and Disposition services and actions to maintain safe operations associated with the stored transuranic inventory such as safe configuration and within prescribed Material-at-Risk limits and in fulfillment of Framework Agreement milestones. • Continue retrieval and processing of transuranic wastes from below grade retrievable storage. • Continue disposition of mixed low-level waste/low-level waste and transuranic waste per Framework Agreement with the state of New Mexico. • Continue operations of processing lines at Waste	• Decrease reflects completion of the campaign to remove 3,706 cubic meters of above-grade transuranic waste by June 30, 2014, in accordance with the Framework Agreement.

Solid Waste Stabilization and Disposition-LANL Legacy (PBS: VL-LANL-0013)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
waste retrievals. • Continue disposition of mixed low-level waste/low-level waste and transuranic waste per Framework Agreement. • Continue operations of processing lines at Waste Characterization Reduction Repackaging Facility, Dome 231, Dome 375 and Building 412.	Characterization Reduction Repackaging Facility, Dome 231, Dome 375 and Building 412.	

Soil and Water Remediation-LANL (PBS: VL-LANL-0030)

Overview

This PBS is within the Defense Environmental Cleanup appropriation.

The Los Alamos National Laboratory Soil and Water Remediation PBS scope includes identification, investigation and remediation of chemical and or radiological contamination attributable to past Laboratory operations and practices. The remaining scope of the PBS includes characterization, monitoring, and protection of the surface and groundwater at the Laboratory and approximately 860 Potential Release Sites left to be investigated, remediated or closed by evaluation and assessment of human health and ecological risks. Included in the scope for the 860 sites remaining to be addressed are: 1) characterization and final remedy of eight priority material disposal areas which are to follow the Resource Conservation and Recovery Act corrective measures study and implementation process. One of the material disposal areas, at Technical Area-54, is the former and active radioactive waste disposal area for the Laboratory; 2) protection and monitoring of groundwater resources and storm water to ensure protection of drinking water supplies; 3) remediation of Technical Area-21, including 3 material disposal areas and over 100 Solid Waste Management Units, with the implementation of the Framework Agreement with the New Mexico Environmental Department.

This PBS also includes $31,100,000 in funding for design, construction, and startup of Hexavalent Chromium Pump and Treatment Remedy Project (15-D-406) in Mortandad Canyon. The breakout of the line item project funding is as follows: $4,600,000 for Preliminary Engineering & Design; $24,000,000 for Total Estimated Cost; and, $2,500,000 for Other Project Cost. Subproject criteria for completing the remedy have not been negotiated with the regulator.

Soil and Water Remediation-LANL (PBS: VL-LANL-0030)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
100,000	**123,262**	**+$23,262**
• Continue groundwater monitoring and reporting requirements consistent with Consent Order and the Resource Conservation and Recovery Act Operating Permit; installation of several monitoring wells under the Consent Order; continue storm-water sampling to protect the regional drinking water supplies, sediment monitoring, mitigation and reporting requirements consistent with the Individual Permit. • Initiate design for the remedy for Material Disposal Area C (presumed to be engineered cover). • Complete the investigation and corrective measures evaluation of Material Disposal Area T to obtain final regulatory remedy selection. • Continue to provide critical database management infrastructure support to meet Consent Order requirements. • Conduct investigation and characterization of two Technical Areas under the Canon de Valle Capital Asset Project. • Initiate authorization basis surface inspections at several Nuclear Environmental Sites and required repairs • Continue Townsite cleanup of solid waste management units from the 1940s and 1950s production sites. • Support Technical Area-21/DP Site aggregate area and other aggregate area cleanups. • Conduct Three Mile Canyon investigation and remediation. • Complete Mortandad Canyon chromium plume	• Continue groundwater monitoring and reporting requirements consistent with the Framework Agreement, Consent Order on Compliance, and the Resource Conservation and Recovery Act Operating Permit; install several monitoring wells under the Consent Order; continue storm-water sampling to protect the regional drinking water supplies, sediment monitoring, mitigation and reporting requirements consistent with the Individual Permit. • Continue to provide critical database management and infrastructure support to meet Consent Order requirements. • Conduct authorization basis surface inspections at several Nuclear Environmental Sites and implement required changes. • Initiate and complete design for the remedy for Material Disposal Area C. • Complete the Investigation Report and Corrective Measures Evaluation of Material Disposal Area T in support of obtaining final regulatory remedy selection. • Completion of Townsite cleanup of solid waste management units from the 1940s and 1950s production sites. • Support Technical Area-21/Delta Prime Site aggregate area and other aggregate area cleanups. • Conduct Three Mile Canyon investigation and remediation. • Continuation of activities for Chromium plume investigation and interim measure progression towards a Corrective Measures Evaluation.	• Increase reflects implementation of a line-item construction project (15-D-406) to provide for chromium plume remediation in Mortandad and Sandia canyons and supports project development activities for removal of General Tanks at Technical Area-21.

Soil and Water Remediation-LANL (PBS: VL-LANL-0030)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
interim measure construction and final turnover to operational treatment status.	• Prepare groundwater Corrective Measures Evaluation report for high explosives plume in Cañon de Valle. • Begin project development activities for removal of General Tanks at Technical Area-21 as a DOE radiological removal action. • Conduct design activities on the Hexavalent Chromium Pump and Treat Remedy line-item construction project for remediation of chromium contamination in Mortandad and Sandia canyons.	

Nuclear Facility D&D-LANL (Defense) (PBS: VL-LANL-0040-D)

Overview

This PBS is within the Defense Environmental Cleanup appropriation.

There are several facilities excess to the DOE mission at the Los Alamos National Laboratory, including structures at Technical Area-21 and Technical Area-54 that require decommissioning and decontamination, in order to complete the EM mission at the Los Alamos National Laboratory and to maintain compliance with the New Mexico Environment Department Consent Order.

Nuclear Facility D&D-LANL (Defense) (PBS: VL-LANL-0040-D)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
1,000	**9,000**	**+$8,000**
• Provide support and planning for decontamination, decommissioning and demolition activities for process-contaminated facilities at Technical Area-21 which are co-located in the footprint of the structures.	• Continue decontamination and decommissioning activities for process-contaminated facilities at Technical Area-21 which are co-located in the footprint of the structures. • Complete demolition of the balance of plant facilities at Technical Area-21.	• Increase reflects start of active deactivation and decommissioning activities for the balance of plant facilities within Technical Area-21 in accordance with the Consent Order.

Los Alamos Construction Projects Summary ($K)

	Total	Prior Years	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Hexavalent Chromium Pump and Treatment Remedy Project, LANL (VL-LANL-0030)							
Total Estimate Cost (TEC)	45,600	0	0	0	0	0	+0
Other Project Costs (OPC)	4,400	0	0	500	500	0	-$500
Subtotal, Hexavalent Chromium Pump and Treatment Remedy Project, LANL (VL-LANL-0030)	50,000	0	0	500	500	0	-$500
15-D-406, Hexavalent Chromium Pump and Treatment Remedy Project, LANL (VL-LANL-0030)							
Total Estimate Cost (TEC)	0	0	0	0	0	28,600	+28,600
Other Project Costs (OPC)	0	0	0	0	0	2,500	+2,500
Subtotal, 15-D-406, Hexavalent Chromium Pump and Treatment Remedy Project, LANL (VL-LANL-0030)	0	0	0	0	0	31,100	+31,100
Total Project Cost (TPC) 15-D-406	50,000	0	0	500	500	31,100	+30,600

15-D-406
Hexavalent Chromium Pump and Treatment Remedy Project,
Los Alamos National Laboratory, Los Alamos, New Mexico
Project is for Design and Construction

1. Summary and Significant Changes

The Hexavalent Chromium Pump and Treatment Remedy Project is a component of the aggregate VL-LANL-0030.C, Soil and Groundwater Remediation project which received its initial authorization with the approval of the Compliance Order on Consent between the New Mexico Environment Department, the Department of Energy, and the University of California on March 25, 2005.

Los Alamos National Laboratory investigation of hexavalent chromium contamination in Sandia Canyon surface sediments and surface and subsurface groundwater in the Sandia Canyon and Mortandad Canyon Watershed have resulted in interim measures and pilot testing beginning in FY 2013 and continuing into FY 2015. The measures and testing will inform the corrective measures evaluation to determine the appropriate remedy in FY 2015 to correct the contamination problem. The magnitude of the problem and the associated risk is driving an aggressive schedule for transitioning from the current pump tests from monitoring wells in FY 2013, into a pilot extraction well in FY 2014, and into a remedy project proposal in FY 2015.

The most recent DOE O 413.3B approved Critical Decision (CD) is Critical Decision-1 for the aggregate project which was approved on April 8, 2010, with a Total Project Cost of $700,400,000 and a Critical Decision-4, Turnover to Long-term Monitoring and Maintenance, date in FY 2015. This aggregate project includes the Watershed Mitigation in Sandia and Mortandad Canyons as well as the Hexavalent Chromium Pump and Treatment Remedy Project [in Mortandad Canyon]. The cost range estimate for Total Project Cost of the Hexavalent Chromium Pump and Treatment Remedy Project **i**s between $25,000,000 and $50,000,000. Since this pump and treatment facility will be operated for a substantial time duration (potentially two decades), demolition & decontamination is not included in this project.

The Hexavalent Chromium Pump and Treatment Remedy Project at the Los Alamos National Laboratory depends on the development and submission by DOE and approval by New Mexico Environment Department, of a proposed remedy to address chromium contamination in the groundwater. No Total Estimated Cost (TEC) funding will be spent until the remedy has been approved by the New Mexico Environment Department and the subsequent Critical Decision -1 (CD-1) for this project has been approved.

This Design and Construction Project Data Sheet represents the best-estimate of forecasted funding needs for FY 2015 through FY 2017. Since testing is not complete, funding needs for this Design and Construction project data sheet are based on the high end initial cost estimate. The Department will conduct an Independent Government Cost Estimate, Independent Cost Estimate, and External Independent Review as required under DOE O 413.3B approval process.

A Federal Project Director has been assigned to this project.

This Project Data Sheet does include a new start for the budget year FY 2015

This Project Data Sheet is new.

2. Critical Decision (CD) and D&D Schedule

(fiscal quarter or date)

	CD-0[a]	CD-1[a]	Design Complete	CD-2	CD-3	CD-4	D&D Start	D&D Complete
FY 2015 Request	1Q FY2015	2Q FY2015	3Q FY2015	3Q FY2015	3Q FY2015	4QFY2017	N/A	N/A

[a] The CD-0 for the aggregate project was documented 3/25/2005 with signature of the Compliance Order on Consent and received CD-1 approval on 04/08/2010.

CD-0 – Approve Mission Need
CD-1 – Approve Alternative Selection and Cost Range
CD-2 – Approve Performance Baseline
CD-3 – Approve Start of Construction
CD-4 – Approve Start of Operations or Project Closeout
D&D Start – Start of Demolition & Decontamination (D&D) work
D&D Complete – Completion of D&D work

3. Baseline and Validation Status

(dollars in thousands)

	TEC, Design	TEC, Construction	TEC, Total	OPC Except D&D	OPC, D&D	OPC, Total	TPC
FY 2015	4,600	41,000	45,600	4,400	0	4,400	50,000[a]

This estimate reflects the high end of the ROM cost estimate. Note: Costs are estimated based on the CD-0 Rough Order of Magnitude Cost Range, $25 Million - $50 Million. All numbers are subject to change until the baseline is validated and approved at CD-2.

4. Project Description, Scope, and Justification

Mission Need

The Los Alamos National Laboratory was established in 1943 to prepare the nuclear weapons that ultimately ended the World War II. The Laboratory has operated ever since to develop and maintain the nation's nuclear capabilities and maintain these capabilities. During the early years, operational processes resulted in hazardous constituents being released to the environment in and around the Laboratory – including hexavalent chromium that was used as a corrosion inhibitor in power plant systems. The release of this hexavalent chromium was included in early Laboratory investigations and cleanup activities and activities to investigate, evaluate, and remediate Sandia Canyon and Mortandad Canyon watersheds were included in the Compliance Order on Consent between the New Mexico Environment Department, the Department of Energy, and the University of California on March 25, 2005. The hexavalent chromium concentration in the regional aquifer at twenty times the New Mexico Water Quality Control Commission drinking water standards supports approval of the mission need for this subproject.

Scope and Justification (Hexavalent Chromium Pump and Treatment Remedy Project)

To comply with state and federal regulatory agreements, the Laboratory is completing the investigation of the Sandia Canyon and Mortandad Canyon watersheds. This includes completing the current interim measures pump testing from existing monitoring wells and planning pilot extraction wells to determine whether large-scale chromium removal through extraction wells is feasible. Preliminary results indicate that pumping and treating the contaminated groundwater would make a viable remedy. In the regulatory approval of the current interim measures (pump testing), the New Mexico Environment Department outlined the possible parameters of a remedy project so that initial planning could be accomplished. To meet the aggressive remedy planning requirements from the regulator, the initial subproject parameters have allowed this initial subproject to be scoped.

This project scope includes design, construction, and startup of a pump and treatment system that could be reasonably expected to operate for between five years to a couple of decades. Subproject criteria for completing the remedy have not been negotiated with the regulator. However, it is considered reasonable to operate for at least five years. Based on pump and treat projects across the DOE complex, it is also conceivable that the system may be run for several decades (although this is not considered that likely). The project is expected to be connected to and operate with the pilot extraction well (planned in FY2014) and up to four additional large-scale or large-volume extraction wells, as many as eight re-injection wells or some sort of re-infiltration gallery, piping connecting the various extraction wells to a central treatment location, a centralized treatment facility with multiple treatment trains, sampling systems, a water disposal methodology for blow-

downs of filtration units, a process control system with remote control capability to preclude permanent personnel being stationed in remote Laboratory canyon areas, and miscellaneous equipment. System capacity may have to be sized for over 1,000 gallons per minute (200 GPM per extraction well).

A formal technical and programmatic risk assessment will be conducted as part of the corrective measures evaluation that is provided before the remedy is selected by the regulator. A project risk assessment will also be prepared as this subproject is defined and scoped before the baseline is established.

The Compliance Order on Consent requires the investigation be completed, but leaves the next steps to be determined and agreed to by the regulator. Therefore, the concrete steps to complete the investigation and the evaluation are still not definitive. As the test results are returned in Fiscal Year 2014, better information will be incorporated into the planning, documentation and execution of the project in Fiscal Year 2015 and beyond.

The project will be developed and conducted in accordance with the project management requirements in DOE O 413.3B, Program and Project Management for the Acquisition of Capital Assets, and all appropriate project management requirements will be met throughout project execution.

5. Financial Schedule

(dollars in thousands)

	Appropriations	Obligations	Costs
Total Estimated Cost (TEC)			
Design			
FY 2015	4,600	4,600	4,600
Total, Design	4,600	4,600	4,600
Construction			
FY 2015	24,000	24,000	22,000
FY 2016	17,000	17,000	16,500
FY 2017	0	0	2,500
Total, Construction	41,000	41,000	41,000
TEC			
FY 2015	28,600	28,600	26,100
FY 2016	17,000	17,000	17,000
FY 2017	0	0	2,500
Total, TEC	45,600	45,600	45,600
Other Project Cost (OPC)			
OPC except D&D			
FY 2014	500	500	500
FY 2015	2,500	2,500	2,500
FY 2016	1,400	1,400	1,000
FY 2017	0	0	400
Total, OPC except D&D	4,400	4,400	4,400
OPC			
FY 2014	500	500	500
FY 2015	2,500	2,500	2,500
FY 2016	1,400	1,400	1,000
FY 2017	0	0	400
Total, OPC	4,400	4,400	4,400

(dollars in thousands)

	Appropriations	Obligations	Costs
Total Project Cost (TPC)			
FY 2014	500	500	500
FY 2015	31,100	31,100	29,100
FY 2016	18,400	18,400	17,500
FY 2017	0	0	2,900
Total, TPC	50,000	50,000	50,000

6. Details of Project Cost Estimate

(dollars in thousands)

	Current Total Estimate	Previous Total Estimate	Original Validated Baseline
Total Estimated Cost (TEC)			
Design			
Design	4,600		N/A
Contingency	0		N/A
Total, Design	4,600		N/A
Construction			
Construction	41,000		N/A
Contingency	0		N/A
Total, Construction	41,000		N/A
Total, TEC	45,600		N/A
Contingency, TEC	0		N/A
Other Project Cost (OPC)			
OPC except D&D			
Conceptual Design	3,000		N/A
Other OPC	1,400		N/A
Total, OPC except D&D	4,400		N/A
D&D			
D&D	0		N/A
Contingency	0		N/A
Total, OPC	4,400		N/A
Contingency, OPC	0		N/A
Total, TPC	50,000		N/A
Total, Contingency	0		N/A

7. Schedule of Appropriation Requests

		Prior Years	FY 2014	FY 2015	FY 2016	FY 2017	Total
FY 2015 Request	TEC	0	0	28,600	17,000	0	45,600
	OPC	0	500	2,500	1,400	0	4,400
	TPC	0	500	31,100	18,400	0	50,000

8. Related Operations and Maintenance Funding Requirements

Start of Operation or Beneficial Occupancy (fiscal quarter or date)	4QFY2016
Expected Useful Life (number of years)	10
Expected Future Start of Demolition & Decontamination	4QFY2026

(Related Funding requirements)

(Dollars in Thousands)

	Annual Costs		Life Cycle Costs	
	Current Total Estimate	Previous Total Estimate	Current Total Estimate	Previous Total Estimate
Operations	TBD		TBD	
Maintenance	TBD		TBD	
Total, Operations & Maintenance	TBD		TBD	

This project has not received authorization to start design and construction; therefore, it is not currently possible to forecast the operations and maintenance needs of the potential structures and facility. As the design is completed in Fiscal Year 2015, better information can be incorporated into this Construction Project.

9. Required D&D Information

Area	Square Feet
Structures and Facility design not authorized yet, therefore, not available	N/A

This project is new construction which does not replace an existing facility. As part of the Office of Environmental Managements cleanup efforts, Los Alamos has established unique projects to perform demolition & decontamination. Sufficient square footage of buildings has been removed from the Los Alamos National Laboratory's inventory through Fiscal Year 2013. The square footage of this project will be offset against the Los Alamos National Laboratory's demolition & decontamination program's banked excess.

10. Acquisition Approach

The project acquisition strategy for the project will be to have the prime contractor execute the work through subcontracting mechanisms with an emphasis on fixed price through competitive bids and the use of consent packages. It is expected that the Managing and Operating Contractor would perform the conceptual work and initial engineering work in-house and subcontract final design and construction separately.

Nevada

Overview

The cleanup of the Nevada National Security Site will support the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and Cold War activities.

The following activities directly support the Department's mission and goals to enhance nuclear security through environmental efforts:

- Environmental restoration scope addresses surface and shallow subsurface radiological soil contamination on the Nevada National Security Site and Nevada Test and Training Range. It includes all activities required to assess and perform appropriate corrective actions at approximately 900 former underground test locations, approximately 100 surface or near-surface soil contamination locations and more than 1,000 other industrial-type sites. Industrial-type site restorations address facility decontamination and decommissioning, various legacy systems, structures and sites (e.g., septic systems, mud pits, storage tanks, disposal sites), and conventional weapons disposition including unexploded ordnance.
- Underground test area activities involve geologic and hydrologic characterization, contaminated groundwater transport modeling, and contaminant boundary definition and establishment of a monitoring system to protect against the inadvertent use of contaminated groundwater.
- Waste management scope supports the completion of cleanup at DOE sites across the United States by maintaining the capability to dispose low-level waste and mixed low-level waste. It also supports disposal of waste generated by environmental restoration activities at the Nevada National Security Site.

The near-term and long-term benefits from the Nevada Field Office environmental restoration efforts include the overall reduction to potential human health and environmental risks, and restoration of the environment to a level that will allow the effective continuation of the national security mission conducted at the Nevada National Security Site.

The benefit of maintaining low-level and mixed low-level radioactive waste disposal capabilities is to support cleanup across DOE sites and enable other DOE missions. Disposing radioactive waste from storage locations across the DOE complex in engineered disposal facilities at the Nevada National Security Site will substantially reduce health and environmental risks at other DOE sites across the nation.

Highlights of the FY 2015 Budget Request

At the Nevada Field Office the main activities in FY 2015 are associated with Underground Test Area drilling of one post-closure monitoring well in Frenchman Flat and the initiation of Multiple Well Aquifer Testing of the Pahute Mesa wells.

FY 2015 Key Milestones/Outlook

- (Sep 2015) continue disposal Low Level Waste and Mixed Low Level Waste; continue audits and certification program; maintain documents

Regulatory Framework

Nevada Site Office work at Nevada National Security Site and Nevada Test and Training Range follows all applicable federal level regulations:

- The Resource Conservation and Recovery Act.
- Clean Air Act, Clean Water Act, and Atomic Energy Act.
- DOE Orders, and applicable Nevada specific laws, codes and acts.
- The Federal Facility Agreement and Consent Order (1996, as amended) for environmental restoration activities.
- The Federal Facility Compliance Act under the waste management activities.

Contractual Framework

Program planning and management for the Nevada National Security Site is conducted through the issuance and execution of contracts to large and small businesses. Nevada National Security Site develops near-term and long-term planning approaches in order to develop contract strategies and program/activity plans at a more detailed level. Selected contractors then execute these plans to complete cleanup on schedule. The current prime contract at the Nevada National Security Site is with National Security Technologies, LLC, and is managed by the National Nuclear Security Administration. The contract has a base performance period of 2006 to 2011 with award term options granted through FY 2015.

Work Authorizations are placed to cover EM work under the NNSA Management and Operations contract. The Management and Operations contract is currently in its option period that runs through 2015.

Strategic Management

In meeting the identified strategic goals, the Department will implement the following key strategies to more efficiently and effectively manage the program, thus putting the taxpayers' dollar to more productive use:

- Plan and conduct environmental restoration activities in a risk- informed and cost-effective manner in order to complete cleanup of legacy contamination and fulfill legal and regulatory commitments.
- Provide safe, compliant and cost-effective disposal for DOE-generated low-level waste and mixed low-level waste streams, supporting the reduction in both Nevada National Security Site contaminated site footprint, as well as, the cleanup of other DOE sites contaminated footprint.

Nevada
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
NNSA Sites						
Nevada						
VL-NV-0030 / Soil and Water Remediation-Nevada	45,951	41,826	0	41,826	44,416	+2,590
VL-NV-0080 / Operate Waste Disposal Facility-Nevada	10,830	16,578	0	16,578	16,940	+362
VL-NV-0100 / Nevada Community and Regulatory Support	4,014	3,493	0	3,493	3,495	+2
Subtotal, Nevada	**60,795**	**61,897**	**0**	**61,897**	**64,851**	**+2,954**

Nevada
Explanation of Major Changes ($K)

	FY 2015 Request vs FY 2014 Enacted
Defense Environmental Cleanup	
NNSA Sites	
Nevada	
VL-NV-0030 / Soil and Water Remediation-Nevada	
• Increase is associated with the drilling one post closure monitoring well and completion of characterization activities at multiple contaminated soil sites.	+2,590
VL-NV-0080 / Operate Waste Disposal Facility-Nevada	
• Increase reflects replacement of excavation equipment and excavation of an additional low-level waste disposal trench.	+362
VL-NV-0100 / Nevada Community and Regulatory Support	
• No significant change.	+2
Total, Nevada	**+2,954**

Soil and Water Remediation-Nevada (PBS: VL-NV-0030)

Overview

This PBS is within the Defense Environmental Cleanup appropriation.

The overall objective of this PBS is to provide for appropriate risk-based remediation of contaminated support facilities and soils, and groundwater modeling on the Nevada National Security Site and the U.S. Air Force's Nevada Test and Training Range. Surface and subsurface contamination of industrial and soil contaminated sites is the result of historic atmospheric and underground nuclear tests. The cleanup is complex due to the number of sites, nature/extent of contamination, and site size/location. The surface contamination includes over 1,000 industrial-type sites and approximately 100 soil contamination sites on the Nevada National Security Site and Nevada Test and Training Range. The subsurface contamination includes approximately 900 groundwater contamination sites on the Nevada National Security Site. The industrial-type release sites are mainly support facilities and structures that were left after conducting aboveground and underground nuclear tests, surface nuclear engine and reactor experiments, and weapons delivery systems.

Currently, activities at most of the 1,000 industrial-type sites have been completed, and activities at approximately 1,000 other sites are in progress.

Soil and Water Remediation-Nevada (PBS: VL-NV-0030)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
41,826	**44,416**	**+$2,590**
• Continue progress toward closure of approximately 900 subsurface contaminated groundwater sites. • Initiate establishment of Frenchman Flat long-term monitoring requirements. • Complete Rainier Mesa Phase I contaminant boundary transport model activities. • Complete Frenchman Flat model evaluation activities. • Complete 2 Pahute Mesa Phase II well development, testing, and sampling operations. • Initiate Pahute Mesa flow and transport model activities. • Complete Yucca Flat peer review. • Complete characterization and determination of	• Continue progress toward closure of approximately 900 subsurface contaminated groundwater sites. • Complete Frenchman Flat closure activities including drilling one post closure well. • Complete Western and Central Pahute Mesa flow and transport model presentations. • Continue annual sampling activities in Pahute Mesa. • Continue Pahute Mesa hydrologic and geologic analysis. • Conduct mandatory surveillance and maintenance of industrial-type and soil remedial systems to prevent contamination spread. • Complete closure activities for 21 contaminated	• Increase is associated with the drilling one post closure monitoring well and completion of characterization activities at multiple contaminated soil sites.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
corrective actions for 36 soil contamination sites. • Complete initial investigation activities for 10 soil contamination sites. • Complete closure of 11 soil contamination sites.	soils sites. • Complete characterization activities for 6 contaminated soils sites. • Continue characterization activities for 9 contaminated soils sites. Initiate Yucca Flat Corrective Action Decision Document/Corrective Action Plan. • Complete Rainier Mesa peer review.	

Operate Waste Disposal Facility-Nevada (PBS: VL-NV-0080)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This PBS provides low-level waste and mixed low-level waste disposal capability to meet the needs of all DOE sites through FY 2030 for waste that requires offsite disposal and for which commercial disposal is not available or cost effective. The funding requested in this PBS supports EM's allocated share of annual disposal costs and therefore is dependent on total waste volumes from all DOE programs. Continuing the practice begun in FY 2009, non-EM programs will fund a share of this activity based upon each program's share of the waste disposed at the Nevada National Security Site. Nevada maintains the capability to dispose low-level waste and mixed low-level waste (as allowed under permit conditions as administered by the State of Nevada), and disposal of classified material from approved generators throughout the DOE complex.

Operate Waste Disposal Facility-Nevada (PBS: VL-NV-0080)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
16,578	**16,940**	**+$362**
• Continue developing and maintaining plans, permits, safety basis, and technical and regulatory support for activities such as the Nevada National Security Site Resource Conservation and Recovery Act Part B Permit. • Continue audits and waste certification reviews in support of generator programs to ensure compliance with the Nevada National Security Site Waste Acceptance Criteria. • Continue operation of Resource Conservation and Recovery Act mixed low-level waste disposal cell. • Support cleanup activities across the DOE complex by disposing approximately 34,000 cubic meters (1,200,000 cubic feet) of low-level and mixed low-level radioactive waste. • Complete Resource Conservation and Recovery Act Treatment Permit.	• Continue developing and maintaining plans, permits, safety basis, and technical and regulatory support for activities such as the Nevada National Security Site Resource Conservation and Recovery Act Part B Permit. • Continue audits and waste certification reviews in support of generator programs to ensure compliance with the Nevada National Security Site Waste Acceptance Criteria. • Continue operation of Resource Conservation and Recovery Act mixed low-level waste disposal cell. • Support cleanup activities across the DOE complex by disposing approximately 34,000 cubic meters (1,200,000 cubic feet) of low-level and mixed low-level radioactive waste. • Replace aging equipment required for excavation of new waste disposal cells. • Excavate one additional low-level waste disposal trench.	• Increase reflects replacement of excavation equipment and excavation of an additional low-level waste disposal trench.

Nevada Community and Regulatory Support (PBS: VL-NV-0100)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This PBS provides support for Agreements in Principle with two state agencies - the Nevada Division of Emergency Management and the Nevada Division of Environmental Protection. This PBS also includes funding for following: the annual Federal Facilities Agreement; Consent Order fee; and a grant with the State of Nevada to perform programmatic oversight and environmental and natural resource planning.

Nevada Community and Regulatory Support (PBS: VL-NV-0100)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
3,493	**3,495**	**+$2**
• Provide support for State of Nevada regulatory oversight of the Nevada National Security Site. • Provide support for the State of Nevada grant to perform programmatic oversight and to carry out environmental and natural resources planning as it pertains to the Nevada National Security Site.	• Provide support for State of Nevada regulatory oversight of the Nevada National Security Site. • Provide support for the State of Nevada grant to perform programmatic oversight and to carry out environmental and natural resources planning as it pertains to the Nevada National Security Site.	• No significant change.

Sandia National Laboratory

Overview

The Sandia National Laboratory Site will support the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and Cold War activities.

The Sandia National Laboratories-New Mexico site is located in Albuquerque, New Mexico. The Sandia National Laboratories Environmental Restoration Project scope includes the remediation of inactive waste disposal and release sites at Albuquerque and other off-site locations. These sites have known or suspected releases of hazardous, radioactive, or mixed waste.

At the end of FY 2010, 265 of 265 soil release sites were considered remediation complete. Three additional soil release sites, bringing the total to 268, are considered "deferred active-mission" sites and will bring a future cleanup liability when mission activities are complete. The remaining cleanup scope will be addressed under Environmental Restoration Operations and currently includes administrative activities for the Mixed Waste Landfill which is one of the soil release sites; three groundwater areas of concern currently in various stages of characterization that require final remedies; and five soil release sites re-opened by the New Mexico Environment Department in 2010. The completion of this scope continues to be regulated by the April 2004 Compliance Order on Consent pursuant to the New Mexico Hazardous Waste Act.

Highlights of the FY 2015 Budget Request

The FY 2015 budget request will allow for the transfer of the Mixed Waste Landfill to long-term stewardship. The request will also help address the uncertainty with groundwater characterization (up to 8 additional wells) and help move one area from remedy determination to remedy implementation.

FY 2015Key Milestones/Outlook

- (Sep 2015) Transfer Mixed Waste Landfill to Long Term Stewardship
- (Sep 2015) Submit updated Conceptual Model/Corrective Measures Evaluation Report for Technical Area V

Regulatory Framework

The regulatory driver for completing this work is the April 2004 New Mexico Environment Department Compliance Order on Consent. As of September 2009, 233 of 265 sites considered remediation complete have been approved by the State for no further action through the entire regulatory process. The remaining 32 sites remediated, including the Mixed Waste Landfill, are in various stages of final state regulatory approval. In addition to the soil sites, there are three groundwater areas of concern that are being characterized to determine the remedial action to implement. It is expected that public interactions to arrive at final groundwater remedies will bring project complexities.

Contractual Framework

The current contractor at Sandia National Laboratories is the Sandia Corporation, a Management and Operations contractor who is a subsidiary of the Lockheed Martin Company. Program planning and management at Sandia National Laboratory is conducted through the issuance and execution of cleanup subcontracts to large and small businesses. Sandia National Laboratory develops near-term and long-term planning approaches in order to develop contract strategies and program/project plans at a more detailed level. Selected subcontractors then execute these plans to complete the cleanup on schedule.

EM work at Sandia is performed under Work Authorizations against the NNSA's Management and Operations contract with Lockheed Martin.

Strategic Management

The Sandia National Laboratory's Environmental Restoration Operations mission is to complete all necessary corrective actions at the three groundwater areas of concern, the five re-opened soil release sites and the administrative activities associated with the Mixed Waste Landfill. Three soil release sites that will remain are considered "deferred active-mission" sites and bring a future cleanup liability. The status of two key goals is: (1) the Mixed Waste Landfill's soil cover remedy is in place and its long-term monitoring and maintenance plan is currently under state review and is required for transfer to long-term stewardship, and (2) the three groundwater areas are in various stages of evaluation to help decide which area moves forward to remedy determination. Lessons learned from progressing one of the three groundwater areas to the remedy phase will be applied to the remaining two groundwater areas to help accelerate obtaining final remedies.

Sandia National Laboratory
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
NNSA Sites						
Sandia National Laboratories						
VL-SN-0030 / Soil and Water Remediation-Sandia	2,588	2,814	0	2,814	2,801	-13

Sandia National Laboratory
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup	
NNSA Sites	
Sandia National Laboratories	
VL-SN-0030 / Soil and Water Remediation-Sandia	
• No significant change.	-13
Total, Sandia Site Office	**-13**

Soil and Water Remediation-Sandia (PBS: VL-SN-0030)

Overview

This PBS is within the Defense Environmental Cleanup appropriation.

The Sandia National Laboratories Environmental Restoration Operations mission is to complete all necessary corrective actions at the three groundwater areas of concern, the administrative activities associated with the Mixed Waste Landfill where the remedy is in place and the long-term monitoring and maintenance plan is currently under State regulatory review, and the investigation/reporting of five soil release sites re-opened by New Mexico Environment Department.

Three groundwater areas are expected to transition to long-term stewardship following completion of characterization/evaluation, remedy selection via public hearing and implementation of the determined remedy.

Soil and Water Remediation-Sandia (PBS: VL-SN-0030)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
2,814	**2,801**	**-$13**
• Complete preparation and submit Permit Modification request to the New Mexico Environment Department to commence public hearing for regulatory closure of Mixed Waste Landfill. • Complete preparation and submit final Groundwater Characterization Report for Silo Sites 8/58, 68, 149 and 154. • Obtain Mixed Waste Landfill Long-Term Maintenance and Monitoring Plan approval. • Complete installation of 3 soil vapor sampling wells. • Complete preparation and Resource Conservation and Recovery Act hearing that includes 23 soil sites for Correction Action Complete. • Complete 90% updated draft of Technical Area-V Groundwater Current Conceptual Model/Corrective Measure Evaluation for EM	• Transfer the Mixed Waste Landfill to the Long-Term Stewardship program. • Submit the Tijeras Arroyo Groundwater Area Corrective Measures Implementation Plan to the New Mexico Environment Department. • Submit Mixed Waste Landfill Class III Permit Mod request to New Mexico Environment Department for regulatory closure. • Submit updated Technical Area-V Current Conceptual Model/Corrective Measures Evaluation Report to New Mexico Environmental Department. • Install up to 8 new groundwater wells at Burn Site.	• No significant change.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
Internal Remedy Review. • Prepare Weight of Evidence Draft with New Mexico Environment Department to help on Burn Site Groundwater Corrective Measure Evaluation.		

Separations Process Research Unit

Overview

Cleanup of the Separations Process Research Unit Site supports the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and cold war activities.

The Separations Process Research Unit is an inactive pilot plant used to research and develop chemical processes to separate plutonium from other radioactive material and is located at the Knolls Atomic Power Laboratory, Niskayuna, New York. The Separations Process Research Unit operated from 1950 to 1953. The Separations Process Research Unit operations contaminated nuclear facilities and approximately thirty acres of land where waste containers were managed. Groundwater, immediately adjacent to the nuclear facilities and in an area where containers were once stored, was also contaminated with radioactivity. The scope of the Separations Process Research Unit project is to decontaminate and remove the nuclear facilities, including sub-grade building foundations and tank vaults, remediate the land areas, and ship the resulting waste to the appropriate off-site disposal facilities.

Cleanup of the Lower Level Rail Bed was completed in FY 2011 and this area was returned to the site landlord, the Office of Naval Reactors. Decontamination and Decommissioning activities of Buildings G2 and H2 were partially funded through the American Recovery and Reinvestment Act funding. In addition, Separations Process Research Unit received damage from tropical storms Irene and Lee, which resulted in an unstable hillside area.

Highlights of the FY 2015 Budget Request

During FY 2015 the project will complete demolition of the G2 and H2 structures, complete demolition of sub-grade building foundations and soil removal work, and begin final site restoration activities.

FY 2015 Key Milestones/Outlook

- (Sep 2015) Projected completion of physical work.

Regulatory Framework

An Administrative Order on Consent was issued by the US Environmental Protection Agency Region 2 in February 2011 for violations of the National Emissions Standards for Hazardous Air Pollutants regulations. This Administrative Order on Consent required that future decontamination and decommissioning activities occur within tent enclosures with ventilation units. Since this time, the contractor has successfully installed tent enclosures with ventilation systems over the structures, and completed activities for removal and shipment of tank sludge wastes, and continues to manage the Hillside Drain System.

Contractual Framework

Program planning and management at the Separations Process Research Unit is conducted through the issuance and execution of contracts to large and small businesses. Separations Process Research Unit develops near-term and long-term planning approaches in order to develop contract strategies and program/project plans at a more detailed level. Selected contractors then execute these plans to complete cleanup on schedule. The current contract at the Separations Process Research Unit is with:

- URS/Washington Group International, Inc. - A Cost Plus Incentive Fee Task Order performed under CLIN 002 of the DOE Environmental Management Nationwide Indefinite Delivery Indefinite Quantity Contract. This contract was modified to include a cost cap which limits the government liability to complete the Task Order. This cost cap has been reached. DOE will continue to fund portions of the work attributable to government actions through use of prior year carryover, and require the contractor to complete the base work scope at no additional cost to the government.

The contractor is obligated to complete the entire scope of the cleanup work on its contract, including that costing more than the maximum DOE cost. The contractor is currently bearing all the costs of the work because the costs have exceeded

the DOE cost cap. The contractor has submitted many requests for equitable adjustment. EM has recognized minimal additional costs and has adjusted the contract cost cap accordingly. The settlement of the rest of the costs is currently part of an ongoing mediation case that has not yet been resolved.

Strategic Management

The contract was modified in FY 2012 and included a cost cap above which the contractor is obligated to fund the base contract work. DOE retains responsibility for funding hillside stabilization as a result of tropical storms Irene and Lee. Changes to the contract directed by the government are funded by the government. The contractor has exceeded the cost cap and has submitted contract claims. The resolution of contract claims is ongoing through the alternate dispute resolution process.

In October 2012, the contractor submitted a revised baseline which has been implemented by DOE as an interim baseline pending validation. In January 2013 the contractor began implementation of a slower rate of progress than required by the interim baseline and working to a URS baseline, which has not been shared with or validated by DOE.

DOE will continue to fund portions of the work attributable to government actions, and require the contractor to complete the base work scope at no additional cost to the government.

The site resumed decontamination and decommissioning in late FY 2013, and completed the removal of the tank sludge from Tank 509E in mid FY-2014. DOE is working to finalize and implement the revised project cost and schedule baseline by the end of FY 2014. The strategy for the site includes completion of remaining cleanup activities and continuing support until all EM post-closure administrative activities are completed and the site is transitioned to the Naval Reactors Program for their continued mission.

Separations Process Research Unit
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
NNSA Sites						
Separations Processing Research Unit						
VL-SPRU-0040 / Nuclear Facility D&D-Separations Process Research Unit	21,795	23,700	0	23,700	0	-23,700

Separations Process Research Unit
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup	
NNSA Sites	
Separations Processing Research Unit	
VL-SPRU-0040 / Nuclear Facility D&D-Separations Process Research Unit	
• Reduction reflects available carryover balances to cover surveillance and maintenance costs associated with contract changes attributable to Federal Government requirements.	-23,700
Total, Separations Process Research Unit	**-23,700**

Nuclear Facility D&D-Separations Process Research Unit (PBS: VL-SPRU-0040)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The project objectives are to remove the inactive nuclear facilities and disposition the chemical and radioactive contamination in land areas and return the areas to the Knolls Atomic Power Laboratory for continued mission use by the Naval Reactors Program.

Under the terms of the site contract, the project reached the established cost cap prior to FY 2014. The site contractor will continue to fund activities necessary to complete the planned site cleanup and satisfy the contract scope requirements. DOE will continue to fund portions of the work attributable to government actions, and require the contractor to complete the base work scope at no additional cost to the Government. FY 2014 funding will be utilized to provide payment for any contract claims to address changes attributable to the Government. No FY 2015 funding is requested for the project, because DOE anticipates that prior year funds will be sufficient to address any costs determined to be attributable to Government actions.

Nuclear Facility D&D-Separations Process Research Unit (PBS: VL-SPRU-0040)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
23,700	**0**	**-$23,700**
• Complete sludge solidification operations. • Continue to manage the Hillside Drain System. • Continue planned decontamination and decommissioning activities at H2 and G2 buildings. • Remove tent enclosures. • Conduct demolition of sub-grade building foundations and soil removal work.	• Complete demolition of structures and of sub-grade building foundations and soil removal work. • Continue to manage the Hillside Drain System. • Initiate development of project closeout documentation.	• Reduction reflects available carryover balances to cover surveillance and maintenance costs associated with contract changes attributable to Federal Government requirements.

West Valley

Overview

The cleanup of the West Valley Demonstration Project will support the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and Cold War activities. The West Valley Demonstration Project is responsible for stabilizing and dispositioning low-level and transuranic waste and decontaminate and decommissioning of excess facilities, tanks, and equipment.
The West Valley Demonstration Project is being executed at the site of the only commercial nuclear fuel reprocessing facility to have operated in the United States. DOE's principal mission at the site is to satisfy the mandates established by the West Valley Demonstration Project Act of 1980 (Public Law 96-368):

- Solidify, in a form suitable for transportation and disposal, the high-level waste;
- Develop containers suitable for permanent disposal of the solidified high-level waste;
- Transport, in accordance with applicable law, the solidified waste to an appropriate disposal site;
- Dispose of low-level waste and transuranic waste produced by high-level waste solidification activities;
- Decontaminate and decommission tanks and facilities used for solidification of high-level waste, as well as any material and hardware used in connection with the Project, in accordance with Nuclear Regulatory Commission requirements.

In meeting the Department's strategic goal, the Department will work aggressively to reduce the footprint at the West Valley Demonstration Project site. This involves treating, packaging and disposal of low-level and transuranic waste, cleaning up the environment, and removing or deactivating excess facilities.

Highlights of the FY 2015 Budget Request

The major activities planned for the West Valley Demonstration Project for FY 2015 focus on the relocation of the high-level waste canisters from the Main Plant Process Building to an interim, on-site storage facility. This includes delivery of dry storage casks and on-site fabrication of 18 Vertical Storage Casks for the High Level Waste Storage System Project, completion of Vitrification Facility deactivation, DOE approval of the Vitrification Facility Demolition Plan, as well as, completion of Dam Repairs and the armoring of the North Slope of the NRC-Licensed Disposal Area.

FY 2015 Key Milestones/Outlook

- (Jan 2015) Interim Milestone (MS03-09): MPPB-Deactivation of Extraction Cells and Crane Room Complete
- (Jun 2015) Interim Milestone (MS01-10): Complete Relocation of High Level Waste, Evacuated Canisters, and Spent Nuclear Fuel debris
- (Jul 2015) Complete the High Level Waste Canister Relocation Project (Major Milestone #1).
- (Jul 2015) Balance of Site Facilities (BOSF) - LSA-3 Demo/Removal Complete (CHBWV MS04-35).
- (Aug 2015) Balance of Site Facilities (BOSF) - LSA-4 Demo/Removal Complete (CHBWV MS04-36).
- (Sep 2015) Meet Fiscal Year Shipping requirements as specified in the Site Treatment Plan

Regulatory Framework

Cleanup and environmental remediation activities at West Valley are governed by the following statutes, regulations, and agreements:

- The West Valley Demonstration Project Act (Public Law 96-368) required the Secretary of Energy to carry out a high-level radioactive waste management project at the Western New York Nuclear Services Center.
- Cooperative Agreement between DOE and New York State Energy Research and Development Authority (1980, amended 1981) provides for the implementation of the West Valley Demonstration Project Act of 1980. It allows DOE use and control of the 165-acre West Valley Demonstration Project premises and facilities for the purposes and duration of the Project.
- Memorandum of Understanding (MOU) between DOE and Nuclear Regulatory Commission (1981) identifies roles, responsibilities, terms and conditions regarding the Nuclear Regulatory Commission review and consultation during the

course of the Project. In accordance with this MOU, the Nuclear Regulatory Commission reviewed and issued a Technical Evaluation Report supporting the DOE submitted Decommissioning Plan in February 2010.

- Stipulation of Compromise Settlement agreement (1987) represents the legal compromise reached between the Coalition on West Valley Nuclear Waste and Radioactive Waste Campaign and the DOE regarding development of a comprehensive Environmental Impact Statement for the Project and for on-site and off-site disposal of low-level waste.
- Second Supplemental Cooperative Agreement, Supplemental Agreement to the Cooperative Agreement between DOE and the New York State Research and Development Authority Setting Forth Special Provisions for the Identification, Implementation and Management of the Phase I Studies for the Decommissioning and/or Long-Term Stewardship at the West Valley Demonstration Project and Western Nuclear Service Center (dated March 14, 2011).
- Resource Conservation and Recovery Act 3008(h) Administrative Order on Consent (1992) between the United States Environmental Protection Agency, the New York State Department of Environmental Conservation, DOE and New York State Energy Research and Development Authority regarding Resource Conservation and Recovery Act.
- Cooperative Agreement between the Seneca Nation of Indians and the West Valley Demonstration Project (1996) establishes a framework for inter-governmental relationships between the Seneca Nation of Indians and the DOE with respect to Project activities.
- The Final Environmental Impact Statement for Decommissioning and/or Long-Term Stewardship and the associated Record of Decision issued April 2010. The Record of Decision was "Phased Decision-making" in which the decommissioning will be completed in two phases. Phase 1 activities are expected to take eight to ten years to complete. In addition, during Phase 1, additional site characterization and scientific studies will be conducted to facilitate consensus decision making for the remaining facilities or areas.
- A Phase 2 decision will be made within ten years after the initial DOE Record of Decision and New York State Energy Research and Development Authority Findings Statement. These decisions would address final closure of the high-level waste tanks, Nuclear Regulatory Commission Licensed Disposal Area, and State Licensed Disposal Area.

Contractual Framework

Program planning and management at West Valley Demonstration Project is conducted through the issuance and execution of contracts to large and small businesses. The major contracts at the West Valley Demonstration Project include:

- West Valley Demonstration Project CH2M Hill B&W West Valley, LCC, which has a contract period of performance from August 29, 2011, through estimated completion date of August 28, 2017. There are no options on this cost plus award fee contract.
- Safety and Ecology Corporation, an IDIQ task order for Environmental Characterization Services at the West Valley Demonstration Project. This task order to a small business is made against its nationwide indefinite delivery/ indefinite quantity contract. It is a time and materials order for remedial action surveys to evaluate surface soils associated with the Characterization of Balance of Site Facilities.

Strategic Management

DOE has completed the first two mandates of the West Valley Demonstration Project Act - solidification of the liquid high-level waste and development of containers suitable for permanent disposal of the high-level waste. There are currently 275 high-level waste canisters that have been produced that are in safe storage within the former spent fuel reprocessing plant. The remaining work to be completed by DOE at West Valley includes: (1) storage and shipment of the high-level waste canisters for off-site disposal; (2) disposal of Project-generated low-level waste and transuranic waste; and (3) facility decontamination and decommissioning. Additionally, in accordance with the DOE and New York State Energy Research and Development Authority spent fuel agreement, DOE shipped 125 spent fuel assemblies to the Idaho National Environmental and Engineering Laboratory in July 2003. The technical, schedule, and cost elements associated with decommissioning of the West Valley Demonstration Project were considered during development of the Decommissioning and/or Long Term Management Environmental Impact Statement. A Record of Decision was issued in April 2010 outlining DOE's plan for completing its remaining responsibilities. To that end, DOE will continue to focus on low-level and transuranic waste disposition, decontamination and removal of the Main Plant Process Building and the Vitrification Facility, and removal of non-essential facilities. In addition, DOE has installed a permeable treatment wall to mitigate the spread of a ground water plume and has installed a tank and vault drying system to safely manage the High-Level Waste tanks until their final closure pathway is determined. DOE will relocate the 275 high-level waste canisters that are currently stored in the Main Plant Processing Building (the original reprocessing facility) to a new on-site interim storage facility. After the high-level waste

canisters are moved, the Main Plant Processing Building and the Vitrification Facility will be decontaminated and demolished consistent with the Environmental Impact Statement Record of Decision.

The following assumptions will impact the overall achievement of the program's strategic goal:

- The Project will be able to disposition higher activity low-level waste off-site, without obstruction, consistent with the 2005 Waste Management Record of Decision.
- Supplemental analyses and amendments to the Record of Decision, as necessary, will allow for off-site disposition of other Project waste.
- The Project's transuranic waste has been included within the Department's ongoing Greater Than Class C low-level Radioactive Waste and Greater Than Class C-like Waste Disposal Environmental Impact Statement. Transuranic waste will be packaged and interim stored until a disposition path is available.

West Valley
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
Safeguards and Security						
OH-WV-0020 / Safeguards and Security-West Valley	1,471	2,015	0	2,015	1,471	-544
Non-Defense Environmental Cleanup						
West Valley Demonstration Project						
OH-WV-0013 / Solid Waste Stabilization and Disposition-West Valley	13,900	15,500	0	15,500	7,938	-7,562
OH-WV-0040 / Nuclear Facility D&D-West Valley	45,706	48,500	0	48,500	51,048	+2,548
Subtotal, West Valley Demonstration Project	**59,606**	**64,000**	**0**	**64,000**	**58,986**	**-5,014**
Total, West Valley Demonstration Project	**61,077**	**66,015**	**0**	**66,015**	**60,457**	**-5,558**

West Valley
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup	
Safeguards and Security	
OH-WV-0020 / Safeguards and Security-West Valley	
• The reduction is the result of applying increased risk-management prioritization to optimize efficiency in site access operations (barricades and badge issuance), personnel security clearances, cyber security maintenance and testing, nuclear materials safeguards monitoring, and protective force staffing and training.	-544
Non-Defense Environmental Cleanup	
West Valley Demonstration Project	
OH-WV-0013 / Solid Waste Stabilization and Disposition-West Valley	
• Decrease reflects the completion of shipment and disposal of the three Waste Incidental to Reprocessing components and rescheduling of newly generated waste disposition and transuranic waste processing consistent with contract requirements.	-7,562
OH-WV-0040 / Nuclear Facility D&D-West Valley	
• Increase supports a greater rate of deactivation activities in the Main Plant and ancillary facilities, consistent with the project baseline critical path.	+2,548
Total, West Valley Demonstration Project	**-5,558**

Safeguards and Security-West Valley (PBS: OH-WV-0020)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The Safeguards and Security Program at the West Valley Demonstration Project protects government assets, information, and technology systems to support the cleanup of this spent fuel reprocessing facility.

This scope will continue until DOE's mission at the West Valley Demonstration Project is complete.

Safeguards and Security-West Valley (PBS: OH-WV-0020)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
2,015	**1,471**	**-$544**
• Provide physical and cyber security with an on-site guard force to ensure all DOE information, materials, property and resources are identified and protected at all times. • Continue program management to oversee the security program including training and qualifications for the West Valley Demonstration Project. • Implement the requirements of Homeland Security Presidential Directive-12 for the West Valley Demonstration Project work force. Homeland Security Presidential Directive -12 implementation is required by Executive Order and as directed by the Environmental Management Senior Advisor.	• Provide Safeguards and Security services program at the West Valley Demonstration Project. • Provide site safeguards and security services for protection program management, emergency response, Physical Security, information protection, Protective Force, Personnel Security, and Cyber Security.	• The reduction is the result of applying increased risk-management prioritization to optimize efficiency in site access operations (barricades and badge issuance), personnel security clearances, cyber security maintenance and testing, nuclear materials safeguards monitoring, and protective force staffing and training.

Solid Waste Stabilization and Disposition-West Valley (PBS: OH-WV-0013)

Overview

This PBS can be found within the Non-Defense Environmental Cleanup appropriation.

The solid waste stabilization and disposition project at the West Valley Demonstration Project involves the waste management activities required to disposition the low-level and transuranic waste produced as a result of high level waste solidification activities. When this project is completed, all West Valley Demonstration Project-generated, low-level waste will have been shipped off-site for disposal, reducing worker and environmental risk at the site. In order to prepare for waste disposition efforts associated with transuranic and other high activity waste, a Remote-Handled Waste Facility has been constructed, which provides the capability to safely characterize, size reduce, package and prepare high activity and transuranic waste for off-site shipment and disposal. Transuranic waste will be packaged and interim stored until a disposition path is available.

Solid Waste Stabilization and Disposition-West Valley (PBS: OH-WV-0013)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
15,500	**7,938**	**-$7,562**
• Process and dispose of legacy mixed low-level waste to be in compliance with the Site Treatment Plan at a reduced rate. • Continue processing and disposal of the balance of legacy and low-level waste. • Process and store legacy and transuranic waste. • Complete the grouting of the Melter ahead of the baseline schedule. • Complete shipment and disposal of the Waste Incidental to Reprocessing components, several years ahead of the baseline schedule.	• Process and dispose of legacy mixed low-level waste to be in compliance with the Site Treatment Plan at a reduced rate. • Continue processing and disposal of the balance of legacy and low-level waste. • Process and store legacy and transuranic waste.	• Decrease reflects the completion of shipment and disposal of the three Waste Incidental to Reprocessing components and rescheduling of newly generated waste disposition and transuranic waste processing consistent with contract requirements.

Nuclear Facility D&D-West Valley (PBS: OH-WV-0040)

Overview

This PBS can be found within the Non-Defense Environmental Cleanup appropriation.

The decontamination and decommissioning program at the West Valley Demonstration Project encompasses the facilities, tanks and hardware used during high-level waste solidification efforts. Decontamination and decommissioning activities were subject to a Final Environmental Impact Statement which was completed in January 2010 and a Record of Decision was issued in April 2010. DOE has selected a phased approach for decommissioning activities at the West Valley Demonstration Project. In August 2011, DOE awarded a contract to CH2M Hill-B&W West Valley, LLC to conduct the first phase of decommissioning (Phase I Decommissioning - Facility Disposition) at the West Valley Demonstration Project. The decontamination and decommissioning will be performed consistent with the Nuclear Regulatory Commission criteria per and approved Decommissioning Plan. The Decommissioning Plan includes the relocation of 275 high-level waste canisters from the 50-year old Main Plant Process Building to a new on-site interim storage facility, and the removal of the Main Plant Process Building, the Vitrification Facility, and the Water Treatment Lagoons (Waste Management Areas 1 and 2). To support decontamination and decommissioning efforts, safety management and maintenance at the site are in compliance with federal and state statutes, as well as DOE orders and requirements.

Nuclear Facility D&D-West Valley (PBS: OH-WV-0040)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
48,500	**51,048**	**+$2,548**
• Maintain site services. • Complete alterations in the Main Plant Process Buildings; Equipment Decontamination Room and the Vitrification Facility building to facilitate the relocation of the High Level Waste Canisters to a new on-site storage system. • Complete installation of High Level Waste Interim Storage System pad. • Initiate relocation of 275 High Level Waste Canisters to a new on-site storage system. • Upgrade haul road to allow transportation of High Level Waste storage casks. • Continue deactivation of the Main Plant Processing Building. • Continue removal of excess ancillary facilities.	• Maintain Site Services. • Complete the relocation of High Level Waste Canisters to a new on-site storage system. • Continue deactivation of the Main Plant Process Building, including deactivation of lab and sample cells and deactivation of extraction cells and crane room. • Continue removal of excess ancillary facilities.	• Increase supports a greater rate of deactivation activities in the Main Plant and ancillary facilities, consistent with the project baseline critical path.

Energy Technology Engineering Center

Overview

Cleanup at the Energy Technology Engineering Center will support the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and Cold War activities. Cleanup activities at the Energy Technology Engineering Center involve completion of site characterization, completion of a court-ordered Environmental Impact Statement, deactivation, decommissioning, and demolition of excess facilities; remediation of contaminated groundwater and soil, and disposition of resulting radioactive and hazardous waste.

The Energy Technology Engineering Center, which was DOE's laboratory for nuclear and liquid metal research (non-defense) at the Santa Susana Field Laboratory, owned by The Boeing Company (Boeing), is a collection of facilities within Area IV of Santa Susana Field Laboratory. The Energy Technology Engineering Center is surplus to DOE's current mission. There are 18 numbered structures remaining, consisting of two radiological facilities, two sodium facilities, and other miscellaneous structures. Current activities at the site involve characterization and investigation to support development of an Environmental Impact Statement, decontamination and decommissioning of the remaining structures, remediation of soil and groundwater contamination, and closure.

The Energy Technology Engineering Center project, including the work in FY 2015, is being performed in accordance with the requirements of several compliance orders including an order by the U.S. District Court for the Northern District of California for completion of an Environmental Impact Statement; completion of Resource Conservation and Recovery Act Facility Investigation groundwater characterization; remediation of chemically contaminated soils to be complete and a cleanup remedy for groundwater to be in place by 2017 as required by a 2007 Consent Order with the State of California; and completion of Soils Remedial Action Implementation Plan as required by a 2010 Administrative Order on Consent with the State of California.

Highlights of the FY 2015 Budget Request

The FY 2015 budget request will enable the site to continue with the planned activities as scheduled. It provides funding to carry out the requirements of the Court Ordered Environmental Impact Statement, Consent Order, and Administrative Order on Consent. Funding at the request level is essential to meet the Department's compliance obligations by 2017. Failure to meet the 2017 compliance milestone requirements could result in a non- compliant situation and stipulated fines and penalties.

FY 2015 Key Milestones/Outlook

- (Sep 2015) Complete Resource Conservation and Recovery Act Facility Investigation groundwater character program
- (Sep 2015) Submit the Final Remedial Investigation Plan to State Regulators towards approval of Remedial Plan.
- (Sep 2015) Submit the conceptual groundwater model report to the Regulators.
- (Sep 2015) Issue Draft Environmental Impact Statement for public comment and response.
- (Sep 2015) Begin work on Final Environmental Impact Statement and Record of Decision.

Regulatory Framework

Regulation of the Energy Technology Engineering Center Closure project is segmented by different regulatory authorities. Prior decontamination and demolition activities of the radiologically contaminated facilities at the Energy Technology Engineering Center were conducted under Atomic Energy Act authority. The U.S. District Court for the Northern District of California directed DOE to complete an Environmental Impact Statement and Record of Decision for Area IV of the Santa Susana Field Laboratory in accordance with the National Environmental Policy Act in May 2007. A Notice of Intent to prepare an Environmental Impact Statement was published in the Federal Register in May 2008, Since DOE’s 2008 Notice of Intent, extensive studies of the site for radiological and chemical contamination have been ongoing and are nearing completion. DOE is proposing a revised scope for the EIS due to the 2010 Administrative Order on Consent (2010 AOC) that DOE and the California Department of Toxic Substances Control (DTSC) signed for soil cleanup, and due to information now available from site characterization. As such, DOE published an Amended Notice of Intent to prepare an Environmental Impact Statement in February 2014.

The Resource Conservation and Recovery Act groundwater cleanup is regulated by the California Department of Toxic Substance Control and is being performed consistent with a signed Consent Order issued by the California Department of Toxic Substances Control in August 2007. DOE completed negotiation of an Administrative Order on Consent with the California Department of Toxic Substance Control in December 2010 for all remaining soil characterization and remediation.

Contractual Framework

The current decontamination and decommissioning contract with Boeing expires on September 30, 2014. The Request for Technical Proposal for the new contract was released on January 3, 2014. Proposals are due on February 25, 2014. Award is projected for 4th Quarter FY 2014. The scope includes ground water monitoring and environmental services with an option for Decontamination and Decommissioning of facilities.

Strategic Management

In meeting the Department's strategic goal, 'Enhance nuclear security through defense, nonproliferation, and environmental efforts', the Department will work aggressively to reduce the footprint at the Energy Technology Engineering Center. This involves the planning and characterization activities required for cleaning up the environment, and removing or deactivating unneeded facilities.

Energy Technology Engineering Center
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Non-Defense Environmental Cleanup						
Small Sites						
Energy Technology Engineering Center						
CBC-ETEC-0040 / Nuclear Facility D&D-Energy Technology Engineering Center	8,868	9,404	0	9,404	8,959	-445

Energy Technology Engineering Center
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Non-Defense Environmental Cleanup	
Small Sites	
Energy Technology Engineering Center	
CBC-ETEC-0040 / Nuclear Facility D&D-Energy Technology Engineering Center	
• The decrease in funding is due to the completion of sampling for the Resource Conservation and Recovery Act Facility Investigation groundwater characterization program, and the Soils Remedial Action Implementation Plan.	-445
Total, Energy Technology Engineering Center	**-445**

Nuclear Facility D&D-Energy Technology Engineering Center (PBS: CBC-ETEC-0040)

Overview

This PBS can be found within the Non-Defense Environmental Cleanup appropriation.

The purpose of this PBS scope is to: 1) clean up contaminated release sites; 2) decontaminate, decommission, and demolish radioactively and chemically contaminated facilities for eventual release of the property to The Boeing Company (the site owner); 3) perform remediation of both contaminated groundwater and soil; and 4) remove radioactive and hazardous waste from the site applying (when possible) waste minimization principles such as recycling. Currently, decontamination, decommissioning, and demolition are complete except for the Sodium Pump Test Facility, Building 4024, Hazardous Waste Management Facility, Radioactive Materials Handling Facility complex, and a number of other miscellaneous structures. Soil and groundwater characterization is being performed. The end-state is to complete cleanup for both radiological contamination and chemical contamination and demolition of remaining structures. The site will then be transferred to The Boeing Company, which owns the land.

Nuclear Facility D&D-Energy Technology Engineering Center (PBS: CBC-ETEC-0040)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
9,404	**8,959**	**-$445**
• Perform ongoing program support and landlord services. • Support Resource Conservation and Recovery Act facility investigation program for groundwater including sampling, analysis, and reporting. • Continue Soils Remedial Acton Implementation Plan. • Issue draft Environmental Impact Statement for review and public comment.	• Perform ongoing program support and operational services. • Complete the Resource Conservation and Recovery Act Facility Investigation groundwater characterization program. • Submit the Final Remedial Investigation Plan to the State Regulators towards the approval of the Remedial Plan. • Submit the site conceptual groundwater model report. • Submit Soils Remedial Action Implementation Plan to the State Regulators. • Complete Draft Environmental Impact Statement to the State Regulators. • Begin work on Final Environmental Impact Statement and Record of Decision.	• The decrease in funding is due to the completion of sampling for the Resource Conservation and Recovery Act Facility Investigation groundwater characterization program, and the Soils Remedial Action Implementation Plan.

Moab

Overview

The cleanup of the Moab site will support the Department's Strategic Plan to continue cleanup of radioactive and chemical waste resulting from the Manhattan Project and cold war activities. In October 2000, the Floyd D. Spence National Defense Authorization Act of 2001 assigned DOE responsibility to establish a remedial action program and stabilize, dispose of, and control uranium mill tailings and other contaminated material at the Moab uranium ore processing site and associated vicinity properties. The project involves the excavation and transportation of a 16,000,000 ton pile of uranium mill tailings from near the Colorado River at the Moab site, and placement/disposal at an engineered disposal cell constructed at Crescent Junction, Utah. Through 9/30/13, the project hauled 6,265,846 tons of uranium mill tailings from the Moab site to the disposal site. The American Recovery and Reinvestment Act supported the progress to date, by enabling significant acceleration in FY 2009-2011.

Direct maintenance and repair at the Moab Site is estimated to be $190,000.

Highlights of the FY 2015 Budget Request

There are no major programmatic changes for the Moab site. The project will continue to excavate, transport, and dispose of residual radioactive material.

FY 2015 Key Milestones/Outlook

- (Sep 2015) Excavate, transport, and dispose of 875k tons of tailings.

Regulatory Framework

Remediation must be performed in accordance with Title I of the Uranium Mill Tailings Radiation Control Act and the cleanup standards established under 40 CFR 192. The U.S. Nuclear Regulatory Commission must concur with the remediation plan and license the final disposal site.

Contractual Framework

The term contract for removing and transporting waste from the site by rail was awarded to Portage, Inc. on a cost plus award fee basis for performance from April 29, 2012-September 30, 2016. This contract includes a fixed until price fee. There are no options under the contract.

Strategic Management

In meeting the Department's strategic goal, "Enhance nuclear security through defense, nonproliferation, and environmental efforts," the Department will work aggressively to reduce the footprint at the Moab site. This involves the transport of uranium mill tailings away from its current location near the Colorado River and Arches National Park to a DOE disposal facility in Crescent Junction, Utah.

Moab
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Non-Defense Environmental Cleanup						
Small Sites						
Moab						
CBC-MOAB-0031 / Soil and Water Remediation-Moab	31,480	38,000	0	38,000	35,837	-2,163

Moab
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Non-Defense Environmental Cleanup	
Small Sites	
Moab	
CBC-MOAB-0031 / Soil and Water Remediation-Moab	
• Decrease reflects completion of a portion of the final cover, augmentation of the relocation of the disposal cell dump ramp, and accelerated equipment maintenance activities.	-2,163
Total, Moab	**-2,163**

Soil and Water Remediation-Moab (PBS: CBC-MOAB-0031)

Overview

This PBS can be found within the Non-Defense Environmental Cleanup appropriation.

The project scope is to remediate radioactive uranium mill tailings, mill debris, contaminated ground water, and contaminated vicinity properties at the former Atlas Minerals Corporation uranium ore processing site. DOE became responsible for this mission upon enactment of the Floyd D. Spence National Defense Authorization Act of 2001. A Record of Decision issued in September 2005 requires relocation of the mill tailings away from the Colorado River to a DOE-constructed disposal facility near Crescent Junction, Utah, primarily via rail transportation. The site is of particular public interest due to its unique setting on the banks of the Colorado River and its proximity to Arches National Park.

Soil and Water Remediation-Moab (PBS: CBC-MOAB-0031)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
38,000	**35,837**	**-$2,163**
• Conduct Moab and Crescent Junction sites operation and maintenance. • Operate interim remedial action for contaminated groundwater including extracting 12,000,000 gallons and diverting/injecting 8,000,000 gallons. • Excavate tailings and transport from mill site to the disposal cell (890,000 tons) • Place tailings into the disposal cell. • Place a portion of the final cover on the disposal cell already covered with interim cover. • Accelerate equipment maintenance and equipment augmentation.	• Conduct Moab and Crescent Junction sites operation and maintenance. • Operate interim remedial action for contaminated groundwater including extracting 12,000,000 gallons and diverting/injecting 8,000,000 gallons. • Excavate tailings and transport from mill site to the disposal cell (875,000 tons). • Place tailings into the disposal cell. • Place interim cover on the disposal cell.	• Decrease reflects completion of a portion of the final cover, augmentation of the relocation of the disposal cell dump ramp, and accelerated equipment maintenance activities.

Other Sites

Overview

In supporting the Department's Strategic Plan, "Complete Environmental Remediation of Our Legacy and Active Sites, Protect Human Health and the Environment," the Environmental Management Program manages program scope that includes closure and post-closure administrative activities at a number of geographic sites across the nation. Some of the sites described in this section of the budget may have continuing EM mission requirements; however, some may have no funding requirements in FY 2014. The sites included in this section are in the final stages of cleanup and closure or have actually transitioned to the post-closure phase. All sites included in this section have contributed to the Department's strategic goal on footprint reduction and now only require continuing administrative support until all EM post-closure administrative activities are completed and the site can be fully transitioned to other Department of Energy programs (i.e., Office of Science, Legacy Management, etc.).

DOE-Sponsored Facilities

Congress has mandated that DOE improve health and safety by cleaning up existing contamination and improving the seismic standards of buildings within Department laboratory grounds. DOE is decontaminating and decommissioning various facilities in the "Old Town" area of Lawrence Berkeley National Laboratory to fulfill this Congressional mandate.

Southwest Experimental Fast Oxide Reactor (SEFOR)

Congress mandated that DOE develop a plan for the decommissioning and decontamination of the Southwest Experimental Fast Oxide Reactor (SEFOR). The plan for the cleanup of SEFOR is to be submitted to the Committees on Appropriations of the House and Senate by May 1, 2014.

EM Consolidated Business Center

The Consolidated Business Center is located in Cincinnati, Ohio, and serves as a central clearinghouse for a wide range of activities supporting DOE's national environmental cleanup mission from financial management and contracting to human resources and information resource management. The Consolidated Business Center also assumed responsibility for administrative closure and post-closure activities at EM defense and non-defense sites, which includes contract closeout, litigation and litigation support within this Other Sites budget. The Consolidated Business Center provides defense post-closure administrative and litigation support for the Fernald, Miamisburg, Rocky Flats and other Small Sites. The Consolidated Business Center also provides oversight of the cleanup efforts ongoing at Lawrence Berkeley National Laboratory, the Moab Uranium Mill Tailings Remedial Action Project, the West Valley Demonstration Project, the Separations Process Research Unit, and the Energy Technology Engineering Center. The EMCBC also serves as the lead EM office for new cleanup contract acquisitions as need to support the EM program mission.

Highlights of the FY 2015 Budget Request

The most significant change for the Consolidated Business center is the funding needed to repay the Treasury Judgment Fund. The Treasury Judgment Fund paid $8,408,000 for the MK Ferguson judgment against DOE in April 2013. The Department informed the Department of Treasury that EM intended to request the funding in FY 2015 to repay the Treasury Judgment Fund.

Strategic Management

In supporting the Department's Strategic Plan, the Environmental Management program will conduct closure and post-closure administrative activities at a number of geographic sites across the nation.

Other Sites
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
Closure Sites						
Closure Sites Administration						
CBC-0100-FN / CBC Post Closure Administration - Fernald	0	1,500	0	1,500	1,500	0
CBC-0100-RF / CBC Post Closure Administration - Rocky Flats	4,943	3,202	0	3,202	3,389	+187
Subtotal, Closure Sites Administration	**4,943**	**4,702**	**0**	**4,702**	**4,889**	**+187**
Non-Defense Environmental Cleanup						
Small Sites						
Closure Sites Administration						
CBC-ND-0100 / CBC - Non-Defense Post Closure Administration and Program Support	0	0	0	0	8,408	+8,408
Southwest Experimental Fast Oxide Reactor (SEFOR)						
SEFOR / SEFOR	0	1,000	0	1,000	0	-1,000
DOE-Sponsored Facilities						
CBC-LBNL-0040 / Decontamination and Decommissioning-Lawrence Berkeley National Laboratory	9,478	17,786	0	17,786	0	-17,786
Total, Small Sites	**9,478**	**18,786**	**0**	**18,786**	**8,408**	**-10,378**
Total, Other Sites	**14,421**	**23,488**	**0**	**23,488**	**13,297**	**-10,191**

Other Sites
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup	
Closure Sites	
Closure Sites Administration	
CBC-0100-RF / CBC Post Closure Administration - Rocky Flats	
• Increase due to increased activity in legal claims.	+187
Non-Defense Environmental Cleanup	
Small Sites	
CBC-ND-0100 / CBC - Non-Defense Post Closure Administration and Program Support	
• Increase reflects repayment of the Judgment fund to the Treasury in FY 2015 for the MK Ferguson payment made in April 2013.	+8,408
Southwest Experimental Fast Oxide Reactor (SEFOR)	
SEFOR / SEFOR	
• The budget does not request additional funding for this Congressional mandate.	-1,000
DOE-Sponsored Facilities	
CBC-LBNL-0040 / Decontamination and Decommissioning-Lawrence Berkeley National Laboratory	
• The budget does not request additional funding for this Congressional mandate.	-17,786
Total, Other Sites	**-10,191**

CBC Post Closure Administration – Fernald (PBS: CBC-0100-FN)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This Post-Closure Administration PBS scope includes the Fernald Closure Project regulatory support, Human Resource Management, Budget and Financial support, and administration of Freedom of Information and Privacy Act programs at the Fernald closure site.

CBC Post Closure Administration - Fernald (PBS: CBC-0100-FN)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
1,500	**1,500**	**0**
• Fund the Fernald Workers II class action lawsuit and contract closeout at the Fernald closure site.	• Fund the Fernald Workers II class action lawsuit and contract closeout at the Fernald closure site.	• Increase reflects funding requirements for Fernald Workers II Settlement and post-closure administrative costs.

CBC Post Closure Administration – Rocky Flats (PBS: CBC-0100-RF)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The Rocky Flats Closure Project achieved site closure in FY 2006. However, ongoing litigation support will continue until all litigation involving the Department of Energy or former Rocky Flats contractors is resolved. The EM Consolidated Business Center has assumed responsibility for the litigation associated with the Rocky Flats Site. The scope of this PBS is to provide site litigation support related to the continuing class actions and other civil litigation activities of former site contractors. This PBS also funds the records management vault and the labor for the vault classifiers.

CBC Post Closure Administration - Rocky Flats (PBS: CBC-0100-RF)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
3,202	**3,389**	**+$187**
• Fund the ongoing Rocky Flats Closure Project's legal requirements and court orders for the Cook and Stone cases at a reduced level. • Fund the Rocky Flats records vault lease and records management costs at a reduced level • Fund Workers Comp, Contract Closeout and other litigation support for the Small Sites.	• Fund the ongoing Rocky Flats Closure Project's legal requirements and court orders for the Cook and Stone cases. • Fund the Rocky Flats records vault lease and records management costs. • Fund Workers Comp, Contract Closeout and other litigation support for the Small Sites. • Fund payment of additional contract liability related to Rocky Flats contract (Kaiser Hill).	• Increase due to increased activity in legal claims.

CBC – Non-Defense Post Closure Administration and Program Support (PBS: CBC-ND-0100)

Overview

This PBS can be found within the Non-Defense Environmental Cleanup appropriation.

This Post-Closure Administration PBS scope includes contract closeout, litigation support, settlement claims, Freedom of Information Act/Privacy Act compliance, and contractor workman's compensation claims for Non-Defense contracts in closeout.

CBC - Non-Defense Post Closure Administration and Program Support (PBS: CBC-ND-0100)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
0	**8,408**	**+$8,408**
• No activities.	• The Treasury Judgment Fund paid the settlement for MK Ferguson in April 2013. All Contract Dispute Act judgments must be repaid. Invoice received on April 12, 2013. DOE responded to the Department of Treasury indicating that the funding would be requested in FY 2015 to repay the Judgment Fund.	• Increase reflects repayment of the Judgment fund to the Treasury in FY 2015 for the MK Ferguson payment made in April 2013.

Southwest Experimental Fast Oxide Reactor – SEFOR (PBS: SEFOR)

Overview

This PBS can be found within the Non-Defense Environmental Cleanup appropriation.

Congress mandated that DOE develop a plan for the decommissioning and decontamination of the Southwest Experimental Fast Oxide Reactor. This facility is not owned by DOE. The requested plan will be provided to the Committees on Appropriation by May 1, 2014.

SEFOR (PBS: SEFOR)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
1,000	**0**	**-$1,000**
• Congress mandated that DOE develop a plan for the decommissioning and decontamination of the Southwest Experimental Fast Oxide Reactor. The requested plan will be provided to the Committees on Appropriation by May 1, 2014.	• No activities.	▪ The budget does not request additional funding for this Congressional mandate.

DOE- Sponsored Facilities – Decontamination and Decommissioning-Lawrence Berkeley National Laboratory (PBS: CBC-LBNL-0040)

Overview

This PBS can be found within the Non-Defense Environmental Cleanup appropriation.

Continue the decontamination and demolition of the facilities in the Old Town Vicinity of the Lawrence Berkeley National Laboratory.

Decontamination and Decommissioning-Lawrence Berkeley National Laboratory (PBS: CBC-LBNL-0040)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
17,786	**0**	**-$17,786**
• Continue the decontamination and demolition (D&D) of the facilities in the Old Town Vicinity of the Lawrence Berkeley National Laboratory.	• No activities.	▪ The budget does not request additional funding for this Congressional mandate.

Mission Support (Headquarters Operations)

Overview

The Headquarters Operations program includes policy, management, and technical support activities to provide management and direction for various crosscutting EM and DOE initiatives. Through this program, EM establishes and implements national and departmental policies, provides focused technical expertise to resolve barriers to site cleanup, and conducts analyses and integrates activities across the DOE complex. The activities provide the policy basis and foundation for sites to complete their mission. The activities also identify opportunities that may result in cost savings. Also included is the Uranium/Thorium Reimbursement program that provides reimbursements to licensees (subject to a site-specific limit) for the cost of environmental cleanup of uranium and thorium processing contamination attributable to materials sold to the Federal government.

Reimbursements to Uranium/Thorium Licensees

Pursuant to Title X of the Energy Policy Act of 1992, Public Law 102-486, as amended, and 10 CFR Part 765, the Reimbursement to Uranium/Thorium Licensees includes reimbursements to fourteen active uranium and thorium processing site licensees for that portion of the environmental cleanup costs attributable to nuclear material sold to the federal government during the Cold War Era. Title X authorizes the Department to reimburse eligible costs to licensees.

The intent of Title X is to reimburse eligible costs previously incurred by licensees, and does not relieve licensees of their liability to complete environmental restoration of their former mill sites. Through September 2013, three sites have completed remediation and have transferred their disposal facilities to DOE for long-term stewardship; one of these sites is still eligible for reimbursements. Ten sites have continuing remediation programs and three of them may complete in 2014. One site, Moab, was transferred by Public Law 106-398 and is no longer within the Title X program.

Mercury Export Ban Act of 2008

The Mercury Export Ban Act of 2008, which banned the export of elemental mercury generated in the United States beginning in 2013, prohibits federal agencies from either selling or distributing mercury, and instructs DOE to provide long-term management and storage for elemental mercury. The Act required that a storage facility be operational by January 1, 2013. Additionally, DOE's mercury storage operations will be subject to the requirements of the Resource Conservation and Recovery Act.

DOE began preparation of an Environmental Impact Statement in May 2009 to identify a location for a long-term elemental mercury management and storage facility. The final Environmental Impact Statement was issued in January 2011. In June 2012, DOE announced its intention to evaluate additional locations near the Waste Isolation Pilot Plant in Carlsbad, New Mexico, in a Supplement to the Environmental Impact Statement. The final Supplement to the Environmental Impact Statement was issued in October 2013. In FY 2014, a record of decision will provide the final decision on a location for the elemental mercury storage facility.

Greater-than-Class-C Waste

In FY 2014, DOE will issue the final Environmental Impact Statement for the Disposal of Greater-Than-Class-C Low Level Radioactive Waste and Greater-Than-Class-C-like Waste. Once the final Environmental Impact Statement is issued and as required under Section 631 of the Energy Policy Act of 2005 (Public Law 109-58), DOE will submit a report to Congress that includes information on Greater-Than-Class-C Waste, options for ensuring the safe disposal of the waste, options for cost recovery, and an identification of any statutory authority required for disposal of the waste. Once Congress has taken action on the report, DOE will issue the Record of Decision for the disposal of Greater-Than-Class-C Waste.

EM Traineeship Program

In order to address the ongoing technical challenges of the EM program, EM would establish an EM Traineeship Program that would focus on Subsurface Contaminant Migration and Remediation and Project Management for Nuclear-Hazardous Waste Management Projects. This program would be University led graduate training, developed in collaboration/ partnership with a DOE National Laboratory and would provide significant training for students as a part of the traineeship. The training program would support term limited postdoctoral appointments at a DOE laboratory for practical, hands-on experience supporting a broad range of subsurface remediation and project management applications, ensuring cross-disciplinary training.

Strategic Sourcing Initiative

In FY 2012, EM embarked on this effort led by the EM Consolidated Business Center in conjunction with the National Nuclear Security Administration. This is an effort whereby materials such as concrete, steel, etc., are located and purchased corporately, netting EM economies of scale savings. This effort resulted in savings of approximately $10,000,000 in FY 2013 and savings estimates for FY 2014 exceed $10,000,000. In FY 2015, this investment will again result in savings to the Department in excess of $10,000,000.

Technology Development and Deployment

The Technology Development and Deployment program focuses on resolving technical challenges using science and innovation to develop practical solutions for environmental cleanup in response to the highest priority needs of the Office of Environmental Management sites. The program provides key investments in mid- and long-range research and development projects focused on developing new cleanup methods where none previously existed, reducing the cost, and accelerating the schedule of high priority cleanup issues. The program addresses issues related to: (1) tank waste, (2) soil and water remediation, (3) nuclear materials management and disposition, and (4) deactivation and decommissioning of contaminated excess facilities including nuclear reactors and chemical separation plants.

These research and development projects are aimed at improving the technical maturity for current baseline technologies, developing cost-effective alternative technologies, and improving or providing next-generation technologies for insertion into program projects. In FY 2014, EM enhanced its Technology Development and Deployment efforts with a coordinated two-prong approach where select activities would be managed at Headquarters while others would be managed at the field sites:

- Longer-term activities with low technology readiness levels (high technology risk) are managed at Headquarters and are reflected in this budget chapter.
- Shorter-term activities with higher technology readiness levels (low technology risk) are managed at the sites where the technology will result in direct mission-related benefits. These activities are discussed in their respective site budgets.

Mission Support
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
Program Support						
Mission Support						
EM-HBCU-0100 / Minority Serving Institution Partnerships Program	8,095	8,000	0	8,000	8,000	0
HQ-MS-0100 / Policy, Management, and Technical Support	10,126	9,979	0	9,979	6,979	-3,000
Subtotal, Mission Support	**18,221**	**17,979**	**0**	**17,979**	**14,979**	**-3,000**
Technology Development and Deployment						
Mission Support						
HQ-TD-0100 / Technology Development	9,808	18,000	0	18,000	13,007	-4,993
Total, Defense Environmental Cleanup	**28,029**	**35,979**	**0**	**35,979**	**27,986**	**-7,993**

Mission Support
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup	
Program Support	
Mission Support	
HQ-MS-0100 / Policy, Management, and Technical Support	
▪ The decrease reflects reduced level of activity in the areas of Headquarters-led support and initiatives and completion of two programmatic environmental impact statements.	-3,000
Technology Development and Deployment	
HQ-TD-0100 / Technology Development	
• Decrease in funding reflects a reduced level of research and development as specific goals are attained in each of the activities.	-4,993
Total, Mission Support	**-7,993**

Minority Serving Institution Partnerships Program (PBS: EM-HBCU-0100)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

The Office of Environmental Management supports the Minority Serving Institutional Partnership Program to attract, develop, and retain the technical workforce at its national laboratories and production plants required to execute its mission.

Goals for this partnership include:

- Strengthen and expand Minority Serving Institution capacity and research experience in DOE mission areas of interest.
- Increase visible participation of Minority Serving Institution faculty in DOE technical engagements and activities, such as collaborative research, technical workshops, expert panel reviews and studies, and competitive processes.
- Target collaborations between Minority Serving Institutions and DOE laboratories and plants that increase scientist-to-scientist interactions, applied research and engineering application collaborations and/or implementation of research results, and provide Minority Serving Institution access to DOE facilities.
- Increase number of Minority Serving Institution students who graduate with Science, Technology, Engineering, and Mathematics degrees relevant to DOE mission areas and have had exposure to career opportunities at DOE sites.
- Increase number of Minority Serving Institution graduates/Postdocs hired into DOE's technical and scientific workforce.

The Minority Serving Institutional Partnership Program aligns Minority Serving Institutional investments with the departmental mission in order to develop the needed skills and talent for DOE's enduring technical workforce at the laboratories and production plants, and to enhance the research and education at under-represented colleges and universities.

Minority Serving Institution Partnerships Program (PBS: EM-HBCU-0100)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
8,000	**8,000**	**0**
• Continue support for the Department's Minority Serving Institution Partnerships Program to attract, develop, and retain the technical workforce at its national laboratories and production plants required to execute its mission.	• Continue support for the Department's Minority Serving Institution Partnerships Program to attract, develop, and retain the technical workforce at its national laboratories and production plants required to execute its mission.	• No change.

Policy, Management, and Technical Support (PBS: HQ-MS-0100)

Overview

This PBS can be found within the Defense Environmental Cleanup appropriation.

This PBS scope includes management and direction for various crosscutting EM and DOE initiatives, establishment and implementation of national and departmental policies, various intergovernmental activities, and analyses and integration activities across the DOE complex. Also, the scope of this PBS includes government-furnished services and items necessary to accelerate site cleanup and risk reduction efforts, assure pathways to disposition waste and materials, conduct transportation, packaging, and emergency preparedness activities, complete necessary policy analyses, support legal claims, support closure assistance activities, and effectively communicate with the public and stakeholders regarding the EM program's activities. It includes the National Environmental Policy Act analysis and associated activities for Greater-Than-Class C radioactive waste disposal, as required by Section 631 of the Energy Policy Act of 2005. This PBS also supports the Department's Strategic Sources Initiative.

Policy, Management, and Technical Support (PBS: HQ-MS-0100)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
9,979	**6,979**	**-$3,000**
• Continue support of State and local government participation through the State Government Working Group, Energy Community Alliance, National Association of Attorneys General, local officials exchange seminars, Environmental Council of the States, and government-to-government interactions with grants with the National Governors Association. • Provide expertise in the areas of safety, health and security, emergency management, package certification, quality assurance, nuclear criticality safety, and risk management. • Provide support to instill safety awareness by utilizing the National Safety Council to conduct surveys which will indicate whether and how EM's commitment to safety is working. • Provide support for various Secretarial and	• Continue support of State and local government participation through established organizations and relationships. • Provide expertise in the areas of safety, health and security, emergency management, package certification, quality assurance, nuclear criticality safety, and risk management. • Provide proactive monitoring of safety environment. • Provide support for various Secretarial and Departmental initiatives. • Support advisory groups such as the Nuclear Regulatory Commission, National Academy of Sciences and Low-Level Radioactive Waste Forum, to obtain technical assistance and expertise that indirectly supports EM mission objectives. • Administer the EM and DOE-wide transportation	▪ The decrease reflects reduced level of activity in the areas of Headquarters-led support and initiatives and completion of two programmatic environmental impact statements.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
Departmental initiatives, including the Defense Contracts Audit Agency audits, Government Industry Data Exchange Program and Consolidated Accounting Investment System. • Provide support to various advisory groups such as the Nuclear Regulatory Commission, National Academy of Sciences and Low-Level Radioactive Waste Forum, to obtain technical assistance and expertise that indirectly supports EM mission objectives. • Administer the EM and DOE-wide transportation and packaging responsibilities and the Transportation Emergency Preparedness Program. • Provide rapid response from technical experts or "External/Internal" review teams to address emerging, imminent technical issues impeding site cleanup and closure. • Provide technical solution projects designed to reduce near-term technical risks and technical assistance to include site troubleshooting, consulting, scientific or technical problem solving. • Perform analysis for long-term elemental mercury management and storage facility. • Supports DOE's Strategic Sources Initiative to purchase commodities through a supply chain framework, which results in cost avoidance on purchases.	and packaging responsibilities and the Transportation Emergency Preparedness Program. • Support activities to implement mercury storage and GTCC LLW disposal programs. • Support DOE's Strategic Sources Initiative to purchase commodities through a supply chain framework, which results in cost avoidance on purchases. • Support the EM traineeship program in the areas of subsurface contaminant transport and project management related to complex nuclear-chemical cleanup facilities.	

Technology Development (PBS: HQ-TD-0100)

Overview

This program can be found within the Defense Environmental Cleanup appropriation.

The Environmental Management Technology Development and Deployment program matures technologies from concept/basic science through feasibility assessment and technology development (bench scale and scale-up testing and flow-sheet evaluation), then production-level demonstration, and finally to full deployment. The program provides key investments in mid- and long-range research and development projects focused on developing new cleanup methods where none previously existed, reducing the cost, and accelerating the schedule of high priority cleanup issues. The program addresses issues related to: (1) tank waste, (2) soil and groundwater remediation, (3) nuclear materials management and disposition, and (4) deactivation and decommissioning of contaminated excess facilities including nuclear reactors and chemical separation plants.

Tank Waste

Tank Waste develops technologies to safely retrieve, stabilize, and dispose of radioactive tank waste and to close the waste tanks. These technologies will optimize tank waste processing by increasing processing rates and/or efficiencies to reduce life-cycle cost and schedule; removing material from the process flow to reduce life-cycle cost and schedule; accelerating tank waste retrieval and closure; and developing and reducing identified project and safety risks.

Next Generation Waste Processing Technologies - Develop Advanced Separation Technologies, Enhanced Glass Compositions and Alternative Waste Forms for increased waste throughput. Advanced Separation Technologies encompasses the development and deployment of innovative pretreatment separation methods (e.g., next generation solvents, technetium, actinides, phosphate, sulfate, aluminum, sodium, chromium separations as well as solids filtration) which cover a range of processing regimes as well as alternative treatment technologies. Enhanced Glass Compositions encompasses development of glass formulations for increased waste loading and melt rates to substantially reduce the volume of glass produced, stored, transported and disposed; thereby, reducing the cost and schedule of tank waste disposition. Alternative Waste Forms included the development of waste forms acceptable for disposal on-site for the pretreated Low Activity Waste, aqueous streams from the Low Activity Waste melter off-gas treatment system, and other secondary liquid waste streams. Waste form development and qualification would include a broad range of Low Activity Waste streams by processes other than vitrification to reduce cost and accelerate schedules. The proposed projects to accomplish these activities include:

- Approaches for Managing Technetium Issues - The purpose of this investment is to develop methods to manage the Technetium-99 in the Low Activity Waste, secondary wastes, and off-gas recycle streams. If the Technetium-99 could be effectively removed from the off-gas stream, the removed Technetium-99 could either be combined with high-level waste feed to the high-level waste melters, vitrified in a small purpose built melter or disposed of off-site which would significantly reduce the cost of vitrifying the high-level tank waste. Activities would also focus on filtration, concentration and corrosion of radionuclides on processes and equipment.
- Development of in-, at-, or near-tank treatment and separation technologies for possible deployment at the Hanford and Savannah River Sites.

Decrease Waste Processing Technical Risk Through Predictive Processes and Science and Engineering – Develop waste processing models to enhance the predictive capability of the waste treatment process to include incorporating cost and uncertainty in lifecycle forecast models. Develop technologies or other improvements to the baseline that either enable timely startup of facilities or accelerate waste processing. Develop predictive models that can be used in process flow development, process operations, process upset avoidance and waste systems optimization. This initiative also develops the data and understanding necessary for an international consensus on the behavior of glass waste form corrosion over geologic time scales in a variety of disposal environments. The proposed projects to accomplish these activities include:

- Long Term Glass Corrosion - The goal of this investment, a joint Environmental Management-Nuclear Energy-Science-international study of glass behavior over geologic time scales, is to enhance the understanding of the long-term behavior of glass and to develop a more robust and universal glass performance model. This model will increase our understanding of the behavior of vitrified High-Level Waste forms in deep geological repositories thereby improving public safety.
- Enhanced Understanding of Waste Slurry Stream Characteristics - The goal of this investment is to development improved characterization techniques, ability to predict waste stream properties, investigation and development of novel slurry mixing methods, and real-time monitoring of key properties to significantly improve the process baseline.

Tank Retrieval and Closure – Develop the technical basis for a risk-informed tank closure approach; develop analytical methods and instrumentation to characterize waste composition in situ and develop state-of-the-art environmental and waste modeling. This includes the development of tools to predict the performance of cementitious barriers and waste forms that incorporate and extend the current state of understanding of underlying aging and degradation phenomena that occur in response to diverse environmental exposure conditions. The proposed projects to accomplish these activities include:

- Cementitious Barriers Partnership (CBP) - The goal of this investment is to develop tools to predict the performance of cementitious barriers that incorporate the underlying degradation phenomenon with diverse environmental exposures. This will reduce conservatism in DOE's tank waste treatment and closure activities thereby significantly reducing cost while enhancing public safety.
- Cost-Effective Characterization Approaches – Develop strategies and technologies to understand, optimize scale and accelerate tank waste characterization enabling waste processing and tank closure schedules to be accelerated and costs reduced.
- Tailored Tank Cleaning Processes – Develop targeted cleaning methods focusing on longer-lived radionuclides of interest, leading to enhanced cleaning of problematic species, a reduction in cleaning time and volume of materials used and elimination of conservative assumptions thus enabling tank cleaning and closure to be accelerated and costs reduced.

<u>Soil and Groundwater Remediation</u>

Soil and Groundwater Remediation develops technologies and processes to expedite subsurface remediation at Office of Environmental Management sites. Recent initiatives have focused on the development of advanced modeling capabilities for subsurface characteristics, the development of solutions to the difficult remedial actions related to the deep vadose zone, and the development of tools, approaches and technologies that will be required to address the technical challenges of recalcitrant compounds in the subsurface.

- Advanced Simulation Capability for Environmental Management – Advanced Simulation Capability for Environmental Management has developed a state-of-the-art scientific community tool and framework to translate and simulate our evolving understanding of complex subsurface contaminated systems into risk-informed and cost-effective remediation and disposal "end-state" solutions. This tool is an integrated modeling and analysis framework that addresses all steps in the process from data management to regulatory reviews and improved communication of modeling results. The modular design provides the capability to use detailed process models and high-performance computing to reduce the reliance on simplification and conservative assumptions to support new cost-effective and risk-informed end-state solutions. A version of Advanced Simulation Capability for Environmental Management will be available in FY 2015 for utilization by sites and other end users. Specifically, in the soil and groundwater remediation area, determining new risk-informed end-state solutions will allow cleanup efforts to more quickly move to monitored natural attenuation having the potential to save billions of dollars in life cycle costs.
- Integrated Applied Field Research Initiative activities – Providing cost-effective means to address the environmental remediation and restoration management challenges facing EM requires development and implementation of advanced approaches to systems-based characterization, remediation, and monitoring in vadose zone, groundwater, and surface water environments. The Soil and Groundwater Remediation program is organized around these challenges and consists of multiple applied field research initiatives (AFRIs) at field sites. The research initiatives interconnect with one another to enable development and implementation of holistic solutions based on scientific understanding of the subsurface environment. These initiatives consider contaminant remediation and natural attenuation in the vadose zone, groundwater, and surface water addressing a variety of DOE EM contaminants. Together they define and develop systems-based remediation approaches and systems-based monitoring strategies for risk-informed, endpoint-based remediation.

- Attenuation-Based Remedies initiative addresses the economic and technical challenges associated with remediation and long-term monitoring of radionuclides and inorganic contaminants. Long-term stabilization of metal and long-lived radionuclide contaminants in aquifers is paramount for successful in-situ remediation, but stabilization mechanisms are often reversible and depend on contaminants' chemical and physical properties, subsurface mineralogy, and geochemical gradients. Furthermore, traditional long-term monitoring is labor-intensive, enduring, and expensive. This initiative develops and tests remediation approaches that combine natural attenuation mechanisms with engineered remedies for long-term stabilization without continuous operations. Additionally, this initiative is developing a new paradigm for long-term monitoring that incorporates leading indicators of plume instability, such as boundary conditions, master geochemical variables, and contaminant surrogates that are easier and less costly to monitor.
- The Deep Vadose Zone initiative develops approaches to restrict and entomb contaminant movement at depths below 50 feet in the subsurface. It is impractical to excavate to these depths but still necessary to restrict contaminant movement to ground water below these areas. This initiative focuses on biological methods to retard movement, geophysical methods to determine locations of contaminants and monitoring methods to track any possible movements.
- The Remediation of Mercury and Industrial Contaminants initiative focuses primarily on developing advanced technologies and approaches for characterizing, remediating, monitoring, and modeling mercury. This initiative is complementary to mercury research funded by the Oak Ridge Reservation Site in Oak Ridge, TN. This initiative's research accomplishments to date include the development of novel sorbents for mercury removal from water, the development of soil gas characterization methods to identify mercury source zones, the development of membrane interface probe technology to locate deeper elemental mercury sources, the development of improved conceptual models of mercury flux and associated risk to human health and ecological receptors, and the discovery of coatings on mercury that could significantly impact in situ remediation and debris treatment.

Nuclear Materials Management and Disposition

Nuclear Materials Management and Disposition develops technologies to support the cleanup mission in the management and disposition of nuclear material, spent nuclear fuel and other challenging materials. Recent technology development activity has focused on ensuring safe, extended storage of the Department's spent nuclear fuel. One project supporting this effort is:

- Aging Management Program for DOE Spent Nuclear Fuel – Technology development to assure safe extended storage of the Department's spent nuclear fuel was begun in FY 2012 to close some of the technology gaps for long-term spent nuclear fuel storage. The Aging Management Research and Development Program focused on two gaps: early detection of structural degradation, and long term materials monitoring. The Aging Management task has already achieved the development and demonstration of remote monitoring technology. The benefits derived have gone beyond the original work scope to demonstrate a remote monitoring technology to verify safe extended storage of spent nuclear fuel. Results from the deployment of remote inspection technologies have been used to support Nuclear Regulatory Commission storage license renewals and demonstrate compliance with Nuclear Regulatory Commission regulations. Not only was the intended purpose achieved well within budget, but the demonstration equipment was also deployed at the Integrated Waste Treatment Unit to help start-up efforts by examining areas of the process vessel and ancillary equipment that are otherwise inaccessible. The potential savings cannot currently be quantified but will be significant.

Deactivation and Decommissioning

The Deactivation and Decommissioning (D&D) program supports the identification, development and timely deployment of adaptive and transformational technologies needed for the safe closure of nuclear, radiological, and industrial DOE facilities. Technology alternatives, technical assistance, and applied research activities within the Deactivation and Decommissioning program are selected and prioritized based on the leveraging of resources and on the potential to meet the major safety and cost goals. The program develops innovative characterization technologies for high-radiation areas, low-energy radiation surveys, hazardous materials, multiple contaminants of concern and closed systems. It improves technologies and technical approaches to remove equipment and other materials from high hazard areas, including size reduction and packaging for disposal. The program facilitates a better understanding of the interactions between contamination and building materials to provide significant advances in decontamination, immobilization, segregation, and passivating methods and technologies. It develops the next generation remote and robotic platforms and smart tooling systems to reduce the risk to workers and improves the efficiency of decontamination and demolition operations. It also expands

basic understanding of solutions for the technical challenges of the permanent isolation of contaminants fill materials with a reduced environmental impact, embedded sensors, and network systems for improved long term monitoring and performance modeling. The projects supporting this effort include:

- Robotics and Smart Tooling Systems – There are numerous facilities in the DOE complex that are unsafe or inaccessible for human entry. This can be due to structure instability, high radiation levels, the presence of high-hazard materials, or confined spaces. As learned from the response to the Fukushima incident, technologies are needed to facilitate characterization, equipment removal, and dismantlement under these hazardous conditions. Tremendous opportunities exist for improvement in Deactivation and Decommissioning activities through the use of robotic and/or tele-operated platforms with smart tooling systems. The robotics initiative focuses on development of the next generation remote and robotic platforms and smart tooling systems to improve the efficiency of decontamination and demolition operations. It will develop modular platforms that can be rapidly assembled into a task-specific configuration; develop anthropomorphic mesofluidic end effector that can interface with tools and the environment like a human hand; and develop smart tooling systems that can adapt to a variety of Deactivation and Decommissioning tasks too difficult or dangerous for humans. The technologies developed from this initiative will greatly reduce the risk to workers. They will improve access to dangerous and difficult environments. In addition, they will enable Deactivation and Decommissioning operations in high-hazard areas, improving worker safety and operational efficiency.
- In-Situ Decommissioning (ISD) – DOE currently has thousands of contaminated excess buildings waiting decommissioning. Traditional demolition is costly and results in significant risks to workers. Traditional approach to Deactivation and Decommissioning involves hazards and costs associated with transporting the demolition materials to the disposal site. It also requires significant energy input and results in greenhouse gas emissions. The In-Situ Decommissioning approach is a viable alternative to demolition. It entails permanent entombment of a facility that contains residual radiological and/or chemical contamination. It is a highly cost-effective approach since it eliminates the need for both demolition and complete removal of the structure and its content (including the cost of transport and disposal). To facilitate implementation of this approach, technology development efforts will focus on materials science to improve grout formulation, delivery systems and material degradation analysis. Also, the project will develop reliable sensors and network systems for long-term monitoring of contaminant release and movement. In addition, long-term performance modeling effort will provide a defensible technical basis to demonstrate compliance with regulatory requirements. Results from this project will effectively achieve end-state requirements. It will result in significant cost savings, yet be equally or more protective of human health and the environment. The successful end result from In-Situ Decommissioning will reduce the need for additional landfill space. In addition, it will also reduce carbon emissions by decreasing transportation requirements.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
18,000	**13,007**	**-$4,993**
Tank Waste • Conduct scientific research and development activities to provide the technical basis for supplemental low activity immobilization waste form and to provide a solution for the separation of Technicium-99 from the low activity waste and off-gas recycle streams. • Develop advanced separations methods and alternative treatment technologies and demonstrate performance of alternate waste forms. • Develop strategies and technologies to understand, optimize scale and accelerate tank waste characterization and develop targeted cleaning methods thus enabling waste processing and tank closure schedules to be accelerated and costs reduced. • Support the Joint Cementitious Barriers Partnership / Advanced Simulation Capability for Environmental Management demonstration on near and far-field transport modeling as well as continue to develop and validate various Cementitious Barriers Partnership software modules and continue to support multi-program activities to enhance the understanding of the long-term behavior of glass.	Tank Waste • Provide the technical basis, evaluate and recommend cost and environmentally acceptable strategies and technologies to manage Technetium-99, including removal of Technetium-99 from off-gas recyle processing streams. • Demonstrate performance of alternate waste forms, support the Cementitious Barriers Partnership and long-term glass studies, and develop improved capabilities to optimize slurry mixing and transport waste loading including investigation and development of novel mixing methods. • Continue development of strategies and technologies to understand, optimize scale and accelerate tank waste characterization and continue development of targeted cleaning methods thus enabling waste processing and tank closure schedules to be accelerated and costs reduced. • Develop near-source tank separations, treatment and removal technologies for radionuclides of interest for possible development at the Hanford and Savannah River Sites.	• Decrease in funding reflects a reduced level of research and development as specific goals are attained in each of the activities.
Nuclear Waste Management and Disposition • Conduct scientific research and development activities that support the disposal of government-managed High Level Waste and DOE spent nuclear fuel.	Nuclear Waste Management and Disposition • Build on previous aging management efforts to monitor safe storage of Spent Nuclear Fuel. An example of a potential application is the integration of the remote inspection camera with the corrosion monitoring module to monitor cask materials.	
	Soil and Groundwater Remediation	

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
Soil and Groundwater Remediation • Test cleanup scenarios at key DOE sites through the use of Advanced Simulation Capabilities for Environmental Management limited user release toolset. • Develop the technical basis using a systems-based assessment and management approach which will result in a risk-informed End State for the sites. • Provide the scientific foundation for the advanced modeling, characterization, assessments, and remediation by the Applied Field Research Initiatives. • Initiate a pilot demonstration of a new paradigm for long-term monitoring, Phase I – master geochemical variables.	• Enhance Uncertainty Quantification, Parameter Estimation, and Sensitivity Analysis toolsets of the Advanced Simulation Capability for Environmental Management user released toolset. • Support the utilization of Advanced Simulation Capability for Environmental Management. Initially Hanford, Savannah River, and the Nevada National Security Site will be targeted. • Provide the scientific foundation for the advanced modeling, characterization, assessments, and remediation scenarios by the Applied Field Research Initiatives. • Complete pilot demonstration of a new paradigm for long-term monitoring, Phase I – master geochemical variables.	
Deactivation and Decommissioning • Continue development and testing of innovative embedded sensors and long-term monitoring technologies for In-Situ Decommissioning. • Initiate development of next generation robotic and/or tele-operated platforms to improve efficiency of decontamination and demolition operations. • Initiate development of various long-term monitoring technologies to ensure the safe and cost-effective removal of Plutonium-238 from Savannah River Site's Building 235-F.	Deactivation and Decommissioning • Continue development of next generation remote and robotic platforms and smart tooling systems. • Conduct a pilot project installing reliable sensors and remote network systems for long-term monitoring of containment release from permanently entombed Deactivation and Decommissioning facilities. • Continue development of various technologies to ensure the safe and cost-effective removal of Plutonium-238 from Savannah River Site's Building 235-F.	

Title X of the Energy Policy Act of 1992: Uranium/Thorium Reimbursement Program
Status of Payments through Fiscal Year 2013 and Estimated Maximum Program Liability
($ Thousands)

Licensees	Total Payments FY 1994-FY 2013[d]	Approved but Unpaid Claim Balances After FY 2013 Payments (Includes costs for some Uranium Licensees that Exceed Current Dry Short Ton Ceiling)	Maximum Remaining Program Liability Including Estimated Costs in Approved Plans for Subsequent Remedial Action
Uranium			
American Nuclear Corp. Site			
American Nuclear Corporation	820	0	0
State of Wyoming	1,279	1	801
Atlantic Richfield Company[a]	32,306	0	0
Atlas Corporation/Moab Mill Reclamation Trust[a]	9,694	0	0
Cotter Corporation	3,100	311	3,433
Dawn Mining Company	10,352	987	8,640
Homestake Mining Company	54,005	4,860	86,998
Pathfinder Mines Corporation	10,782	8	286
Petrotomics Company[a]	2,850	0	0
Rio Algom Mining LLC[b]	41,713	646	6,244
Tennessee Valley Authority	15,990	9,140	9,140
Umetco Minerals Corporation-CO	56,099	18,863	33,381
Umetco Minerals Corporation-WY	20,694	4,241	6,099
Western Nuclear, Incorporated	32,062	235	1,536
Subtotal, Uranium	291,746	39,292	156,558
Thorium			
Tronox LLC[c]	351,549	15,294	61,257
Subtotal, Thorium	351,549	15,294	61,257
Total, Uranium and Thorium	643,295	54,586	217,815

[a] Reimbursements have been completed to the Atlantic Richfield Company, the licensees of the Moab site, and the Petrotomics Company.

[b] Formerly Quivira Mining Company.

[c] Includes former licensees, Kerr-McGee Chemical Corp. & Tronox, LLC. Effective 2011, the thorium site license was transferred to the West Chicago Environmental Response Trust. The remaining program liability for the thorium site is the total of the remaining reimbursement authority allowed under Title X plus the unpaid claim balance.

[d] Since there was no FY 2013 funding for the Title X Program, the "Total Payments FY 1994-FY2013" amounts remain the same as the prior year.

Environmental Managment
Performance Measures

In accordance with the GPRA Modernization Act of 2010, the Department sets targets for, and tracks progress toward, achieving performance goals for each program. For more information, refer to the Department's FY 2013 Annual Performance Report.

	FY 2013	FY 2014	FY 2015
Performance Goal (Measure)	**Liquid Waste in Inventory eliminated (Thousands of Gallons)**		
Target	6,993	7,343	8,833
Result	6,133/Not Met	Not applicable	Not applicable
Endpoint Target	This metric has a life cycle estimate of 90,814 thousand gallons.		
Performance Goal (Measure)	**Liquid Waste Tanks closed (Number of Tanks)**		
Target	17	13	13
Result	11/ Not Met	Not applicable	Not applicable
Endpoint Target	This metric has a life cycle estimate of 239 tanks.		
Performance Goal (Measure)	**High-Level Waste packaged for final disposition (Number of Containers)**		
Target	4,113	4,153	4,273
Result	4,028/Not Met	Not applicable	Not applicable
Endpoint Target	This metric has a life cycle estimate of 24,134 containers.		
Performance Goal (Measure)	**Plutonium Metal or Oxide packaged for long-term storage (Number of Containers)**		
Target		Measure Completed	
Result		Measure Completed	
Endpoint Target	This metric has a life cycle estimate of 5,089 containers and was completed in FY 2005.		
Performance Goal (Measure)	**Enriched Uranium packaged for disposition (Number of Containers)**		
Target	8,016	8,016	8,016
Result	8,016/Met	Not applicable	Not applicable
Endpoint Target	This metric has a life cycle of 8,198 containers.		

	FY 2013	FY 2014	FY 2015
Performance Goal (Measure)	**Plutonium or Uranium Residues packaged for disposition (Kilograms of Bulk)**		
Target		Measure Completed	
Result		Measure Completed	
Endpoint Target	This metric has a life cycle of 107,828 kilograms and was completed in FY 2007.		
Performance Goal (Measure)	**Depleted and Other Uranium packaged for disposition (Metric Tons)**		
Target	68,546	68,730	100,230
Result	46,030/Not Met	Not applicable	Not applicable
Endpoint Target	This metric has a life cycle estimate of 737,514. metric tons.		
Performance Goal (Measure)	**Material Access Areas eliminated (Number of Material Access Areas)**		
Target	31	30	30
Result	30/Not Met	Not applicable	Not applicable
Endpoint Target	This metric has a life cycle estimate of 35 Material Access Areas eliminated.		
Performance Goal (Measure)	**Spent Nuclear Fuel packaged for final disposition (Metric Tons of Heavy Metal)**		
Target	2,133	2,128	2,128
Result	2,128/Not Met	Not applicable	Not applicable
Endpoint Target	This metric has a life cycle estimate of 2,450 metric tons of heavy metal.		
Performance Goal (Measure)	**Transuranic Waste Dispositioned (Cubic meters) - Total (combined Remote Handled and Contact Handled Transuranic) Waste**		
Target	96,618	102,591	110,614
Result	95,923/Not Met	Not applicable	Not applicable
Endpoint Target	This metric has a life cycle estimate of 148,576 cubic meters.		
Performance Goal (Measure)	**Legacy and Newly Generated Low-Level and Mixed Low-Level Waste disposed (Cubic meters)**		
Target	1,235,662	1,298,854	1,310,184
Result	1,257,555/Met	Not applicable	Not applicable

Endpoint Target	This metric has a life cycle estimate of 1,582,842 cubic meters.		
	FY 2013	**FY 2014**	**FY 2015**
Performance Goal (Measure)	**Nuclear Facility Completions (Number of Facilities)**		
Target	133	138	141
Result	130/not Met	Not applicable	Not applicable
Endpoint Target	This metric has a life cycle estimate of 489 facilities.		
Performance Goal (Measure)	**Radioactive Facility Completions (Number of Facilities)**		
Target	564	561	566
Result	530/Not Met	Not applicable	Not applicable
Endpoint Target	This metric has a life cycle estimate of 1,029 facilities.		
Performance Goal (Measure)	**Industrial Facility Completions (Number of Facilities)**		
Target	1,933	2,070	2,084
Result	1,980/ Met	Not applicable	Not applicable
Endpoint Target	This metric has a life cycle estimate of 4,134 facilities.		
Performance Goal (Measure)	**Remediation Complete (Number of Release Sites)**		
Target	7,620	8,035	8,165
Result	7,553/Not Met	Not applicable	Not applicable
Endpoint Target	This metric has a life cycle estimate of 10,860 release sites.		
Performance Goal (Measure)	**Geographic Sites Eliminated (Number of Geographic Sites)**		
Target	91	91	91
Result	90/Not Met	Not applicable	Not applicable
Endpoint Target	The EM program has a life cycle estimate for this metric of 107 geographic sites.		

Program Direction

Overview

Program Direction provides for the Federal workforce responsible for the overall direction and administrative support of the Office of Environmental Management (EM) program, including both Headquarters and field personnel. The EM mission of safe cleanup of the nuclear weapons environmental legacy is carried out by a workforce composed largely of contractors, although there are a variety of functions that are inherently governmental (e.g., program management, contract administration, budget formulation and execution, and interagency and international coordination) requiring a dedicated Federal workforce.

The role of the Headquarters Federal workforce is to provide leadership, establish and implement policy, conduct analyses, and integrate activities across sites. Increasing standards of accountability for program performance and spending require Headquarters staff to closely analyze budget requests, track expenditures, and compile congressionally mandated and other program plans (e.g., footprint reduction goals). Field personnel are responsible and directly accountable for implementing the EM program within the framework established by Headquarters policy and guidance. In addition, the field is responsible for the day-to-day oversight and project management of the Department's facilities, the facility contractors and other support contractors, as well as construction and test activities supporting EM activities for the Department of Energy (DOE).

Highlights of the FY 2015 Budget Request

Over the past 8 years, several independent reviews and studies have concluded that EM lacks sufficient personnel in several mission-critical areas. For instance, the Government Accountability Office (GAO) has stated that EM faces a critical human-capital shortage and needs to take steps now to ensure it has the human capital it needs to adequately manage projects and administer contracts.[1] A 2007 report by the National Academy of Public Administration urged EM to increase its federal workforce from 1,380 to 1,580 FTEs.[2] A year later, another report from the Army Corps of Engineers recommended an increase of 159 FTEs.[3] To address the broader contract administration and project management issues raised in these independent reviews, the Secretary has elevated the focus and attention to management and performance by moving the EM program under the purview of the Under Secretary for Management and Performance. This brings the Department's strongest contract and project management capabilities, resident within the Office of Acquisition and Project Management, directly to support the EM program.

EM's FTE level is currently approximately 1,400 FTEs due to a combination of the progress made in the past 8 years in completing cleanup of sites such as Rocky Flats, Fernald, and Mound; the successful 74 percent reduction of the cleanup footprint with American Recovery and Reinvestment Act funding; and rising attrition rates.

Like DOE generally, the vast majority of EM's budget is used to fund contracts for a broad range of services, including physical cleanup work, waste treatment and transportation, site and laboratory management and operations, and security, among many others. EM's ability to not only award, but also effectively oversee the hundreds of contracts it issues each year depends on the size, experience, skill, and expertise of its acquisition workforce. EM's current acquisition workforce needs to be augmented to maximize value to the U.S. Government, to support robust pre-award planning and post-award administration and avoid post-award problems that result in work delays and cost increases.[4] This initiative will hire 25 new contracting specialists in FY 2014, who will be located at 9 sites across the cleanup complex with the greatest need for more contracting experts.

EM's ability to negotiate contracts that provide the best value for the government depends in large part on EM's ability to determine independently the fair value of the services being contracted. This task falls to EM's cost estimators, who must

[1] GAO, "Department of Energy: Better Information Needed to Determine if Nonmajor Projects Meet Performance Targets," pp. 31-32, 34-35, Rep. No. GAO-13-129 (Dec. 2012).
[2] National Academy of Public Administration, Office of Environmental Management: Managing America's Defense Nuclear Waste, pp. xiii-xiv, 89-90 (Dec. 2007).
[3] U.S. Army Corps of Engineers, Best-in-Class Project Management Initiative Corporate Implementation Plan, pp. ii, 6-8 (March 14, 2008).
[4] *See* fn. 1-3, above; *see also* GAO, High-Risk Series: An Update, p. 221-22, GAO-13-283 (Feb. 2013).

have highly specialized expertise and experience in a range of technical and professional areas, including many different types of engineering, nuclear-facility decontamination and decommissioning, groundwater remediation, information technology, and security services, among others. Cost estimators also play a vital role in providing EM's budgeting and planning processes with the cost forecasts needed to anticipate future resource needs. This initiative will add 20 additional cost estimators to EM's human capital. They will be located at the sites with mission critical contracting responsibilities. As part of this initiative, EM's Consolidated Business Center will create and oversee a new Cost Estimating and Analysis Program, to develop and disseminate complex-wide principles, standards, and professional-development plans, as well as ensure an active forum for exchanging best practices and other lessons learned. In addition, EM will plan and execute the contract specialists initiative and cost estimators initiative jointly, to ensure a coordinated and holistic approach to developing these critical human-capital resources.

Program Direction
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Program Direction Summary					
Carlsbad					
Salaries and Benefits	7,214	7,498	7,498	7,656	+158
Travel	341	306	306	306	0
Other Related Expenses	1,159	1,149	1,149	561	-588
Total, Carlsbad	**8,714**	**8,953**	**8,953**	**8,523**	**-430**
Idaho					
Salaries and Benefits	6,105	5,928	5,928	6,053	+125
Travel	176	140	140	140	0
Support Services	298	240	240	107	-133
Other Related Expenses	800	969	969	501	-468
Total, Idaho	**7,379**	**7,277**	**7,277**	**6,801**	**-476**
Oak Ridge					
Salaries and Benefits	10,001	10,084	10,084	10,293	+209
Travel	123	125	125	125	0
Support Services	1,228	1,383	1,383	690	-693
Other Related Expenses	3,536	3,418	3,418	1,655	-1,763
Total, Oak Ridge	**14,888**	**15,010**	**15,010**	**12,763**	**-2,247**
Portsmouth/Paducah Project Office					
Salaries and Benefits	7,693	8,241	8,241	9,311	+1,070
Travel	335	274	274	300	+26
Support Services	1,000	1,067	1,067	525	-542
Other Related Expenses	1,103	1,276	1,276	713	-563
Total, Portsmouth/Paducah Project Office	**10,131**	**10,858**	**10,858**	**10,849**	**-9**
Richland					
Salaries and Benefits	35,128	35,604	35,604	36,340	+736
Travel	236	385	385	385	0
Support Services	2,466	1,285	1,285	441	-844
Other Related Expenses	6,978	8,416	8,416	4,341	-4,075
Total, Richland	**44,808**	**45,690**	**45,690**	**41,507**	**-4,183**

	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
River Protection					
Salaries and Benefits	20,565	20,518	20,518	24,581	+4,063
Travel	276	450	450	518	+68
Support Services	2,601	1,757	1,757	720	-1,037
Other Related Expenses	3,123	4,155	4,155	2,528	-1,627
Total, River Protection	**26,565**	**26,880**	**26,880**	**28,347**	**+1,467**
Savannah River					
Salaries and Benefits	39,005	38,589	38,589	42,020	+3,431
Travel	438	470	470	497	+27
Support Services	2,493	1,849	1,849	794	-1,055
Other Related Expenses	3,055	4,264	4,264	2,399	-1,865
Total, Savannah River	**44,991**	**45,172**	**45,172**	**45,710**	**+538**
Small Sites					
Salaries and Benefits	4,465	4,501	4,501	4,597	+96
Travel	193	290	290	290	0
Support Services	870	1,306	1,306	696	-610
Other Related Expenses	1,314	1,217	1,217	581	-636
Total, Small Sites	**6,842**	**7,314**	**7,314**	**6,164**	**-1,150**
Nevada Site Office					
Salaries and Benefits	2,764	2,744	2,744	2,800	+56
Travel	79	55	55	55	0
Support Services	85	376	376	226	-150
Other Related Expenses	52	84	84	46	-38
Total, Nevada Site Office	**2,980**	**3,259**	**3,259**	**3,127**	**-132**
Los Alamos Site Office					
Salaries and Benefits	2,663	3,041	3,041	3,104	+63
Travel	102	125	125	125	0
Support Services	154	689	689	413	-276
Other Related Expenses	322	325	325	160	-165
Total, Los Alamos Site Office	**3,241**	**4,180**	**4,180**	**3,802**	**-378**
Field					
Salaries and Benefits	135,603	136,748	136,748	146,755	+10,007
Travel	2,299	2,620	2,620	2,741	+121

	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Support Services	11,195	9,952	9,952	4,612	-5,340
Other Related Expenses	21,442	25,273	25,273	13,485	-11,788
Total, Field	**170,539**	**174,593**	**174,593**	**167,593**	**-7,000**
Headquarters Operations					
Salaries and Benefits	53,592	53,204	53,204	54,311	+1,107
Travel	1,892	2,165	2,165	2,165	0
Support Services	25,699	21,921	21,921	10,003	-11,918
Other Related Expenses	15,055	18,648	18,648	9,869	-8,779
Total, Headquarters Operations	**96,238**	**95,938**	**95,938**	**76,348**	**-19,590**
Consolidated Business Center					
Salaries and Benefits	21,367	20,751	20,751	30,984	+10,233
Travel	687	680	680	1,290	+610
Support Services	2,021	2,352	2,352	1,185	-1,167
Other Related Expenses	4,918	5,686	5,686	3,384	-2,302
Total, Consolidated Business Center	**28,993**	**29,469**	**29,469**	**36,843**	**+7,374**[5]
Total Program Direction					
Salaries and Benefits	210,562	210,703	210,703	232,050	+21,347
Travel	4,878	5,465	5,465	6,196	+731
Support Services	38,915	34,225	34,225	15,800	-18,425
Other Related Expenses	41,415	49,607	49,607	26,738	-22,869
Total, Program Direction	**295,770**	**300,000**	**300,000**	**280,784**	**-19,216**
Federal FTEs	**1,413**	**1,398**	**1,398**	**1,500**	**+102**

[5] FY 2015 FTE increase at EM's Consolidated Business Center reflects plans for increased contract specialists and cost estimators that will be placed here and at EM sites across the complex as they are brought on board.

	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Support Services and Other Related Expenses					
Support Services					
Technical Support					
Feasibility of Design Considerations	4,600	4,046	4,046	1,868	-2,178
System Definition	102	89	89	41	-48
Economic and Environmental Analysis	6,905	6,073	6,073	2,803	-3,270
Test and Evaluation Studies	90	80	80	37	-43
Surveys or Reviews of Technical Operations	10,703	9,413	9,413	4,346	-5,067
Total, Technical Support	22,400	19,701	19,701	9,095	-10,606
Management Support					
Directives Management Studies	2,338	2,056	2,056	950	-1,106
Automatic Data Processing	2,227	1,958	1,958	904	-1,054
Training and Education	239	210	210	97	-113
Analysis of DOE Management Processes	865	761	761	351	-410
Reports and Analyses Management and General Administrative Support	10,846	9,539	9,539	4,403	-5,136
Total, Management Support	16,515	14,524	14,524	6,705	-7,819
Total, Support Services	**38,915**	**34,225**	**34,225**	**15,800**	**-18,425**
Other Related Expenses					
Rent to GSA	7,311	9,471	9,471	3,279	-6,192
Rent to Others	989	1,345	1,345	466	-879
Communication, Utilities, Misc.	6,546	8,524	8,524	2,859	-5,665
Printing and Reproduction	222	176	176	152	-24
Other Services	6,325	9,085	9,085	2,441	-6,644
Training	1,618	1,314	1,314	1,159	-155
Purchases from Gov. Accounts	145	197	197	68	-129
Operation and Maintenance of Equipment	1,454	1,978	1,978	685	-1,293
Supplies and Materials	155	211	211	73	-138

	FY 2013 Current	FY 2014 Enacted	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Equipment	2,363	3,215	3,215	1,113	-2,102
Working Capital Fund	14,287	14,091	14,091	14,443	+352
Total, Other Related Expenses	**41,415**	**49,607**	**49,607**	**26,738**	**-22,869**

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
300,000	**280,784**	**-$19,216**
Salaries and Benefits		
Supports Federal hiring of experienced, skilled employees in critical occupational areas such as Contract Specialists and Cost Estimators. Also supports increased hiring in critical positions at the Office of River Protection and Paducah to address increasing site missions at those sites.	Supports Federal salaries and benefits for EM's planned FTE level of 1,500.	Reflects Federal pay raise and benefits contributions for 1,500 FTEs.
Travel		
EM has achieved a 30 percent reduction from FY 2010 levels for travel costs by increasing its use of televideo and teleconferencing equipment for meetings between field and Headquarters offices that do not require on-site visits or meetings with community regulators or stakeholders. EM will enhance the use of this meeting option for "desktop" project reviews, budget meetings, and acquisition peer reviews. These cost saving initiatives are in compliance with Executive Order 13589 "Promoting Efficient Spending." Additionally, EM continues to scrutinize conference sponsorship as well as overall conference attendance to further influence reductions in travel costs.	Maintain a reduced travel level in compliance with Executive Order 13589. Additionally, EM will continue to scrutinize conference sponsorship as well as overall conference attendance to further influence reductions in travel costs.	No change.
Support Services		
EM must put reliance on Federal staff to execute professional project and program management activities that were previously performed by contractors. For example, EM is utilizing an	Support for services in the areas of administrative, procurement and human capital support; technical oversight support; IT to support new systems; operation and maintenance of equipment; and operation and maintenance	Reflects implementation of DOE IT enterprise modernization strategy.

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
information technology (IT) Governance Board to evaluate IT investments, focusing on new systems that Federal staff can independently operate and maintain. EM has achieved a 20 percent reduction in advisory support services in compliance with Executive Order 13589.	of facilities occupied by EM staff.	
Other Related Expenses		
Funds items such as the field rent, utilities, communications, building and ground maintenance, site-wide health services, and EM Working Capital Fund costs. EM is evaluating use of leased space for Federal occupancy and those leases that will expire in 2014. Efficiencies are underway for the reintegration of Federal staff to Government-owned facilities.	EM will fund items such as the field rent, utilities, communications, building and ground maintenance, site-wide health services, and headquarters Working Capital Fund. EM will continue efficiencies for the reintegration of Federal staff to Government-owned facilities.	Reflects efficiencies and planned use of available carryover balances.

UED&D Fund Deposit

Overview

The Defense Environmental Cleanup, Federal Contribution to the Uranium Enrichment Decontamination and Decommissioning Fund, provides the Federal Government contribution to the Fund, as required by the Energy Policy Act of 1992 (The Act). Prior to October 24, 2007, the Act authorized annual fund contributions from a special assessment on domestic utilities and Congressional appropriations.

The Administration will submit legislation to reauthorize section 1802 of the Atomic Energy Act of 1954 (42 U.S.C. 2297g-1) to reinstate a special assessment on domestic utilities, as well as allow for additional Federal deposits into the Fund. The amount collected from industry for a fiscal year would total no more than $200,000,000 (to be annually adjusted for inflation using the Consumer Price Index for all-urban consumers published by the Department of Labor), and annual deposits from both industry and the Federal government would total no more than $663,000,000 (also adjusted for inflation), with the remainder above the industry assessment to come from appropriated funds from the Defense Environmental Cleanup account. This proposal reflects the ongoing need to decontaminate, decommission, and remediate the uranium processing facilities, and the shared responsibility of both industry and the Federal government for these costs.

Highlights of the FY 2015 Budget Request

This fund is responsible for maintaining, decontaminating, decommissioning, and remediating uranium processing facilities. This includes the environmental management responsibilities at the nation's three gaseous diffusion plants at Paducah, Kentucky; Portsmouth, Ohio; and Oak Ridge, Tennessee.

As the cleanup and decommissioning at the gaseous diffusion plants progresses, the risk and hazard to human health and the environment is greatly reduced. In addition, as cleanup is completed, the financial resources needed to maintain site infrastructure will be reduced.

D&D Fund Deposit
Funding ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup						
Federal Contribution to the Uranium Enrichment D&D Fund						
HQ-DD-0100 / Federal Contribution to the Uranium Enrichment D&D Fund	0	0	0	0	463,000	+463,000

D&D Fund Deposit
Explanation of Major Changes ($K)

	FY 2015 vs FY 2014 Enacted
Defense Environmental Cleanup	
Federal Contribution to the Uranium Enrichment D&D Fund	
HQ-DD-0100 / Federal Contribution to the Uranium Enrichment D&D Fund	
▪ Increase in funding for this activity reflects the Federal government contribution to Uranium Enrichment Decontamination and Decommissioning Fund, as required by the Energy Policy Act of 1992.	+463,000
Total, D&D Fund Deposit	**+463,000**

Federal Contribution to the Uranium Enrichment D&D Fund (PBS: HQ-DD-0100)

The Energy Policy Act of 1992 created the Uranium Enrichment Decontamination and Decommissioning Fund to pay for the cost of cleanup of the gaseous diffusion facilities located in Oak Ridge, Tennessee; Paducah, Kentucky; and Portsmouth, Ohio. The purpose of this activity is to provide the annual Federal contribution to the Uranium Enrichment Decontamination and Decommissioning Fund to cover the costs of cleanup at the three gaseous diffusion plants.

Federal Contribution to the Uranium Enrichment D&D Fund (PBS: HQ-DD-0100)

Activities and Explanation of Changes

FY 2014 Enacted	FY 2015 Request	Explanation of Changes FY 2015 vs FY 2014 Enacted
0	**463,000**	**+$463,000**
▪ No activity	▪ Provide the Federal Government contribution to the Uranium Enrichment Decontamination and Decommissioning Fund, as required by the Energy Policy Act of 1992.	▪ Increase reflects the Federal government contribution to Uranium Enrichment Decontamination and Decommissioning Fund, as required by the Energy Policy Act of 1992.

Environmental Management
Facilities Maintenance and Repair

The Department's Facilities Maintenance and Repair activities are tied to its programmatic missions, goals, and objectives. Facilities Maintenance and Repair activities funded by this budget are displayed below.

Costs for Direct-Funded Maintenance and Repair

	(Dollars in Thousands)			
	FY 2013 Actual Cost	FY 2013 Planned Cost	FY 2014 Planned Cost	FY 2015 Planned Cost
Carlsbad	10,434	12,087	10,434	14,434
Energy Technology Engineering Center	278	278	238	265
Idaho National Laboratory	21,776	21,776	22,233	22,700
Moab	211	200	183	190
Oak Ridge	7,962	9,984	9,191	8,090
Paducah	7,473	8,411	15,702	36,405
Portsmouth	25,785	25,876	28,635	28,990
Richland Operations Office	48,150	47,211	48,150	48,150
Office of River Protection	61,217	51,903	52,981	66,740
Savannah River	138,387	126,331	143,158	146,024
Total, Direct-Funded Maintenance and Repair	**321,673**	**304,057**	**330,905**	**371,988**

Costs for Indirect-Funded Maintenance and Repair

	(Dollars in Thousands)			
	FY 2013 Actual Cost	FY 2013 Planned Cost	FY 2014 Planned Cost	FY 2015 Planned Cost
Carlsbad	0	0	0	0
Energy Technology Engineering Center	0	0	0	0
Idaho National Laboratory	0	0	0	0
Moab	0	0	0	0
Oak Ridge	0	0	0	0
Pacific Northwest National Laboratory	3,330	3,330	5,334	5,084
Paducah	0	0	0	0
Portsmouth	0	0	0	0
Richland Operations Office	0	0	0	0
Office of River Protection	0	0	0	0
Savannah River	15,909	15,970	14,469	15,905
Total, Indirect-Funded Maintenance and Repair	**19,239**	**19,300**	**19,803**	**20,989**

Report on FY 2013 Expenditures for Maintenance and Repair

This report responds to legislative language set forth in Conference Report (H.R. Conf. Rep. No. 108-10) accompanying the Consolidated Appropriations Resolution, 2003 (Public Law 108-7) (pages 886-887), which requests the Department of Energy provide an annual year-end report on maintenance expenditures to the Committees on Appropriations. This report compares the actual maintenance expenditures in FY 2013 to the amount planned for FY 2013, including Congressionally directed changes.

Environmental Management
Research and Development ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2015 Request[a]	FY 2015 vs FY 2014 Enacted
Basic	0	0	0	+0
Applied	3,338	7,290	13,500	+6,210
Development	6,778	14,801	20,000	+5,199
Subtotal, R&D	10,116	22,091	33,500	+11,409
Equipment	0	0	0	+0
Construction	0	0	0	+0
Total, R&D	**10,116**	**22,091**	**33,500**	**+11,409**

[a] FY 2015 includes funding for technology development efforts as well as research and development estimates for the Savannah River National Laboratory.

Environmental Management
Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) ($K)

	FY 2013 Transferred	FY 2014 Projected	FY 2015 Request	FY 2015 vs FY 2014 Projected
Headquarters	308	576	429	-147
Oak Ridge	0	131	99	-32
Total, SBIR/STTR	**308**	**707**	**528**	**-179**

Environmental Management
Safeguards and Security ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Protective Forces	154,415	160,738	0	160,738	152,424	-8,314
Physical Security Systems	24,522	25,343	0	25,343	36,034	+10,691
Information Security	3,363	4,048	0	4,048	3,179	-869
Personnel Security	8,193	8,328	0	8,328	6,108	-2,220
Security Investigations	452	458	0	458	350	-108
Material Control and Accountability	4,770	5,064	0	5,064	4,422	-642
Program Management	28,401	29,161	0	29,161	24,946	-4,215
Transportation	325	329	0	329	259	-70
Subtotal, Safeguards and Security	224,441	233,469	0	233,469	227,722	-5,747
Cyber Security	7,316	7,531	0	7,531	6,239	-1,292
Safeguards and Security	**231,757**	**241,000**	**0**	**241,000**	**233,961**	**-7,039**

Environmental Management
Safeguards and Security by Activity ($K)

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Carlsbad						
Protective Forces	3,645	4,073	0	4,073	3,645	-428
Physical Security Systems	209	233	0	233	209	-24
Information Security	241	269	0	269	241	-28
Program Management	322	360	0	360	322	-38
Subtotal, Carlsbad	4,417	4,935	0	4,935	4,417	-518
Cyber Security	38	42	0	42	38	-4
Total, Carlsbad	**4,455**	**4,977**	**0**	**4,977**	**4,455**	**-522**
Oak Ridge						
Protective Forces	13,591	13,558	0	13,558	11,814	-1,744
Physical Security Systems	1,399	1,396	0	1,396	1,216	-180
Information Security	346	345	0	345	301	-44
Personnel Security	1,208	1,205	0	1,205	1,050	-155
Material Control and Accountability	837	835	0	835	728	-107
Program Management	628	627	0	627	546	-81
Subtotal, Oak Ridge	18,009	17,966	0	17,966	15,655	-2,311
Cyber Security	836	834	0	834	727	-107
Total, Oak Ridge	**18,845**	**18,800**	**0**	**18,800**	**16,382**	**-2,418**
Paducah						
Protective Forces	4,690	7,991	0	7,991	4,690	-3,301
Physical Security Systems	584	995	0	995	584	-411
Information Security	803	1,368	0	1,368	803	-565
Personnel Security	219	373	0	373	219	-154
Material Control and Accountability	221	377	0	377	221	-156
Program Management	488	832	0	832	488	-344
Subtotal, Paducah	7,005	11,936	0	11,936	7,005	-4,931
Cyber Security	292	498	0	498	292	-206
Total, Paducah	**7,297**	**12,434**	**0**	**12,434**	**7,297**	**-5,137**
Portsmouth						
Protective Forces	9,244	7,015	0	7,015	4,766	-2,249
Physical Security Systems	1,597	1,212	0	1,212	823	-389
Personnel Security	831	631	0	631	428	-203

	FY 2013 Current	FY 2014 Enacted	FY 2014 Adjustments	FY 2014 Current	FY 2015 Request	FY 2015 vs FY 2014 Enacted
Program Management	3,400	2,580	0	2,580	1,753	-827
Subtotal, Portsmouth	15,072	11,438	0	11,438	7,770	-3,668
Cyber Security	1,400	1,062	0	1,062	722	-340
Total, Portsmouth	**16,472**	**12,500**	**0**	**12,500**	**8,492**	**-4,008**
Richland						
Protective Forces	39,396	42,743	0	42,743	39,396	-3,347
Physical Security Systems	6,850	7,432	0	7,432	6,850	-582
Information Security	924	1,003	0	1,003	924	-79
Personnel Security	1,436	1,558	0	1,558	1,436	-122
Material Control and Accountability	1,249	1,355	0	1,355	1,249	-106
Program Management	11,335	12,298	0	12,298	11,335	-963
Subtotal, Richland	61,190	66,389	0	66,389	61,190	-5,199
Cyber Security	2,478	2,689	0	2,689	2,478	-211
Total, Richland	**63,668**	**69,078**	**0**	**69,078**	**63,668**	**-5,410**
Savannah River						
Protective Forces	82,856	83,998	0	83,998	87,120	+3,122
Physical Security Systems	13,883	14,075	0	14,075	26,352	+12,277
Information Security	1,049	1,063	0	1,063	910	-153
Personnel Security	4,499	4,561	0	4,561	2,975	-1,586
Security Investigations	452	458	0	458	350	-108
Material Control and Accountability	2,463	2,497	0	2,497	2,224	-273
Program Management	12,038	12,204	0	12,204	10,312	-1,892
Transportation	325	329	0	329	259	-70
Subtotal, Savannah River	117,565	119,185	0	119,185	130,502	+11,317
Cyber Security	1,984	2,011	0	2,011	1,694	-317
Total, Savannah River	**119,549**	**121,196**	**0**	**121,196**	**132,196**	**+11,000**
West Valley Demonstration Project						
Protective Forces	993	1,360	0	1,360	993	-367
Program Management	190	260	0	260	190	-70
Subtotal, West Valley Demonstration Project	1,183	1,620	0	1,620	1,183	-437
West Valley Demonstration Project	288	395	0	395	288	-107
Total, West Valley Demonstration Project	**1,471**	**2,015**	**0**	**2,015**	**1,471**	**-544**
Total, Safeguards and Security	**231,757**	**241,000**	**0**	**241,000**	**233,961**	**-7,039**

Department Of Energy
FY 2015 Congressional Budget
Funding By Appropriation By Site
($K)

Non-Defense Environmental Cleanup	FY 2013 Current	FY 2014 Enacted	FY 2015 Request
Brookhaven National Laboratory			
Small Sites			
Small Sites	7,471	0	0
Total, Brookhaven National Laboratory	**7,471**	**0**	**0**
East Tennessee Technology Park (K25)			
Small Sites			
Oak Ridge – ETTP	0	0	2,119
Total, East Tennessee Technology Park (K25)	**0**	**0**	**2,119**
Energy Technology Engineering Center			
Small Sites			
Small Sites	8,868	9,404	8,959
Total, Energy Technology Engineering Center	**8,868**	**9,404**	**8,959**
Hanford Site			
Fast Flux Test Reactor Facility			
Fast Flux Test Reactor Facility	2,562	2,542	2,562
Total, Hanford Site	**2,562**	**2,542**	**2,562**
Idaho National Laboratory			
Small Sites			
Small Sites	4,863	4,993	4,900
Total, Idaho National Laboratory	**4,863**	**4,993**	**4,900**
Lawrence Berkeley National Laboratory			
Small Sites			
Small Sites	9,478	17,786	0
Total, Lawrence Berkeley National Laboratory	**9,478**	**17,786**	**0**
Miamisburg Site			
Small Sites			
Small Sites	0	0	8,408
Southwest Experimental Fast Oxide Reactor	0	1,000	0
Total, Small Sites	**0**	**1,000**	**8,408**
Total, Miamisburg Site	**0**	**1,000**	**8,408**
Moab Site			
Small Sites			
Small Sites	31,480	38,000	35,837
Total, Moab Site	**31,480**	**38,000**	**35,837**

Department Of Energy
FY 2015 Congressional Budget
Funding By Appropriation By Site
($K)

Non-Defense Environmental Cleanup	FY 2013 Current	FY 2014 Enacted	FY 2015 Request
Paducah Gaseous Diffusion Plant			
Gaseous Diffusion Plants			
Gaseous Diffusion Plants	49,702	46,870	52,886
Total, Paducah Gaseous Diffusion Plant	**49,702**	**46,870**	**52,886**
Portsmouth Gaseous Diffusion Plant			
Gaseous Diffusion Plants			
Gaseous Diffusion Plants	45,634	49,352	51,517
Total, Portsmouth Gaseous Diffusion Plant	**45,634**	**49,352**	**51,517**
SLAC National Accelerator Laboratory			
Small Sites			
Small Sites	3,793	0	0
Total, SLAC National Accelerator Laboratory	**3,793**	**0**	**0**
West Valley Demonstration Project			
West Valley Demonstration Project			
West Valley Demonstration Project	59,606	64,000	58,986
Total, West Valley Demonstration Project	**59,606**	**64,000**	**58,986**
Total, Non-Defense Environmental Cleanup	**223,457**	**233,947**	**226,174**

Department Of Energy
FY 2015 Congressional Budget
Funding By Appropriation By Site
($K)

Defense Environmental Cleanup	FY 2013 Current	FY 2014 Enacted	FY 2015 Request
Carlsbad Area Office			
Program Direction			
Program Direction	8,714	8,953	8,523
Safeguards and Security			
Waste Isolation Pilot Plant	4,455	4,977	4,455
Total, Carlsbad Area Office	**13,169**	**13,930**	**12,978**
Consolidated Business Center			
Program Direction			
Program Direction	35,835	36,783	32,113
Total, Consolidated Business Center	**35,835**	**36,783**	**32,113**
East Tennessee Technology Park (K25)			
Safeguards and Security			
Oak Ridge Reservation	18,845	18,800	16,382
Total, East Tennessee Technology Park (K25)	**18,845**	**18,800**	**16,382**
Energy Technology Engineering Center			
Oak Ridge Reservation			
Nuclear Facility D & D, ETTP	102	100	102
Total, Energy Technology Engineering Center	**102**	**100**	**102**
Fernald Environmental Management Project			
Closure Sites			
Fernald	0	1,500	1,500
Total, Fernald Environmental Management Project	**0**	**1,500**	**1,500**
Hanford Site			
Hanford Site			
Central Plateau Remediation	502,921	512,665	500,582
River Corridor & Other Cleanup Operations	356,207	408,634	332,788
Total, Hanford Site	**859,128**	**921,299**	**833,370**
Safeguards and Security			
Richland/Hanford Site	63,668	69,078	63,668
Total, Hanford Site	**922,796**	**990,377**	**897,038**
Idaho National Laboratory			
Idaho National Laboratory			
Idaho Community and Regulatory Support	3,771	3,700	2,910
Idaho Clean-up and Waste Disposition	351,995	383,300	364,293
Total, Idaho National Laboratory	**355,766**	**387,000**	**367,203**
Total, Idaho National Laboratory	**355,766**	**387,000**	**367,203**

Department Of Energy
FY 2015 Congressional Budget
Funding By Appropriation By Site
($K)

Defense Environmental Cleanup	FY 2013 Current	FY 2014 Enacted	FY 2015 Request
Idaho Operations Office			
Program Direction			
Program Direction	7,379	7,277	6,801
Total, Idaho Operations Office	**7,379**	**7,277**	**6,801**
Lawrence Livermore National Laboratory			
NNSA Sites			
NNSA Sites	1,761	1,238	1,128
Total, Lawrence Livermore National Laboratory	**1,761**	**1,238**	**1,128**
Los Alamos National Laboratory			
NNSA Sites			
NNSA Sites	189,678	220,686	193,662
Los Alamos National Laboratory	0	0	28,600
Total, NNSA Sites	**189,678**	**220,686**	**222,262**
Total, Los Alamos National Laboratory	**189,678**	**220,686**	**222,262**
Nevada National Security Site			
NNSA Sites			
NNSA Sites	45,951	41,826	44,416
Total, Nevada National Security Site	**45,951**	**41,826**	**44,416**
Nevada Site Office			
Program Direction			
Program Direction	2,980	3,259	3,127
NNSA Sites			
NNSA Sites	14,844	20,071	20,435
Total, Nevada Site Office	**17,824**	**23,330**	**23,562**
NNSA Albuquerque Complex			
Program Direction			
Program Direction	3,241	4,180	3,802
NNSA Sites			
NNSA Sites	2,592	4,341	2,593
Total, NNSA Albuquerque Complex	**5,833**	**8,521**	**6,395**
Oak Ridge National Laboratory			
Oak Ridge Reservation			
Nuclear Facility D & D, ORNL	40,198	38,387	38,387
Building 3019	34,025	0	0
U233 Disposition Program	0	45,000	41,626
Total, Oak Ridge Reservation	**74,223**	**83,387**	**80,013**
Total, Oak Ridge National Laboratory	**74,223**	**83,387**	**80,013**

Department Of Energy
FY 2015 Congressional Budget
Funding By Appropriation By Site
($K)

Defense Environmental Cleanup	FY 2013 Current	FY 2014 Enacted	FY 2015 Request
Oak Ridge Office			
Oak Ridge Reservation			
Nuclear Facility D & D, Y-12	0	4,608	9,400
Clean-up and Disposition	0	0	4,200
Total, Oak Ridge Reservation	**0**	**4,608**	**13,600**
Program Direction			
Program Direction	14,888	15,010	12,763
Total, Oak Ridge Office	**14,888**	**19,618**	**26,363**
Oak Ridge Reservation			
Oak Ridge Reservation			
Clean-up and Disposition	75,804	83,220	71,137
Total, Oak Ridge Reservation	**75,804**	**83,220**	**71,137**
Oak Ridge Reservation (Off-Site)			
Oak Ridge Reservation			
ORR Community and Regulatory Support	5,894	4,365	4,365
Total, Oak Ridge Reservation (Off-Site)	**5,894**	**4,365**	**4,365**
Office of River Protection			
Office of River Protection			
Tank Farm Activities	463,085	520,216	522,000
Waste Treatment Plant	634,356	690,000	690,000
Total, Office of River Protection	**1,097,441**	**1,210,216**	**1,212,000**
Program Direction			
Program Direction	26,565	26,880	28,347
Technology Development			
Technology Development	0	0	0
Total, Office of River Protection	**1,124,006**	**1,237,096**	**1,240,347**
Paducah Gaseous Diffusion Plant			
Safeguards and Security			
Paducah	7,297	12,434	7,297
Total, Paducah Gaseous Diffusion Plant	**7,297**	**12,434**	**7,297**
Portsmouth Gaseous Diffusion Plant			
Program Direction			
Program Direction	10,131	10,858	10,849
Safeguards and Security			
Portsmouth	16,472	12,500	8,492
Total, Portsmouth Gaseous Diffusion Plant	**26,603**	**23,358**	**19,341**

Department Of Energy
FY 2015 Congressional Budget
Funding By Appropriation By Site
($K)

Defense Environmental Cleanup	FY 2013 Current	FY 2014 Enacted	FY 2015 Request
Richland Operations Office			
Hanford Site			
Community and Regulatory Support	17,969	19,701	14,701
Office of River Protection			
Tank Farm Activities	0	0	23,000
Program Direction			
Program Direction	44,808	45,690	41,507
Total, Richland Operations Office	**62,777**	**65,391**	**79,208**
Rocky Flats Site			
Closure Sites			
Rocky Flats	4,943	3,202	3,389
Total, Rocky Flats Site	**4,943**	**3,202**	**3,389**
Sandia National Laboratories			
NNSA Sites			
NNSA Sites	2,588	2,814	2,801
Total, Sandia National Laboratories	**2,588**	**2,814**	**2,801**
Savannah River Operations Office			
Savannah River Sites			
Community and Regulatory Support	11,014	11,210	11,013
Program Direction			
Program Direction	44,991	45,172	45,710
Safeguards and Security			
Savannah River Site	119,549	121,196	132,196
Total, Savannah River Operations Office	**175,554**	**177,578**	**188,919**
Savannah River Site			
Savannah River Sites			
Site Risk Management Operations	397,761	432,491	416,276
Radioactive Liquid Tank Waste Stabilization and Disposi	685,960	690,533	722,817
Total, Savannah River Sites	**1,083,721**	**1,123,024**	**1,139,093**
Total, Savannah River Site	**1,083,721**	**1,123,024**	**1,139,093**
Separations Process Research Unit			
NNSA Sites			
NNSA Sites	21,795	23,700	0
Total, Separations Process Research Unit	**21,795**	**23,700**	**0**

Department Of Energy
FY 2015 Congressional Budget
Funding By Appropriation By Site
($K)

Defense Environmental Cleanup	FY 2013 Current	FY 2014 Enacted	FY 2015 Request
Washington Headquarters			
Program Direction			
Program Direction	96,238	95,938	87,242
Program Support			
Program Support	18,221	17,979	14,979
Uranium Enrichment D&D Fund Contribution			
Uranium Enrichment D&D Fund Contribution	0	0	463,000
Technology Development			
Technology Development	9,808	18,000	13,007
Total, Washington Headquarters	**124,267**	**131,917**	**578,228**
Waste Isolation Pilot Plant			
Waste Isolation Pilot Plant			
Operation and Maintenance	197,838	216,193	216,020
Total, Waste Isolation Pilot Plant	**197,838**	**216,193**	**216,020**
West Valley Demonstration Project			
Safeguards and Security			
West Valley	1,471	2,015	1,471
Total, West Valley Demonstration Project	**1,471**	**2,015**	**1,471**
Y-12 Site Office			
Oak Ridge Reservation			
Nuclear Facility D & D, Y-12	27,446	35,229	34,666
OR Technology Development and Deployment	0	4,091	3,000
Total, Oak Ridge Reservation	**27,446**	**39,320**	**37,666**
Technology Development			
Technology Development	0	0	0
Total, Y-12 Site Office	**27,446**	**39,320**	**37,666**
Total, Defense Environmental Cleanup	**4,646,054**	**5,000,000**	**5,327,538**

Department Of Energy
FY 2015 Congressional Budget
Funding By Appropriation By Site
($K)

Uranium Enrichment Decon. & Decom. Fund	FY 2013 Current	FY 2014 Enacted	FY 2015 Request
East Tennessee Technology Park (K25)			
Uranium Enrichment D&D Fund			
Pension & comm & Reg Suport Oak Ridge	0	0	21,693
Oak Ridge	200,366	195,741	137,898
Total, Uranium Enrichment D&D Fund	**200,366**	**195,741**	**159,591**
Total, East Tennessee Technology Park (K25)	**200,366**	**195,741**	**159,591**
Paducah Gaseous Diffusion Plant			
Uranium Enrichment D&D Fund			
Pens & Comm & Reg Support Paducah	0	0	2,375
Paducah Gaseous Diffusion Plant	92,534	265,220	207,215
Total, Uranium Enrichment D&D Fund	**92,534**	**265,220**	**209,590**
Total, Paducah Gaseous Diffusion Plant	**92,534**	**265,220**	**209,590**
Portsmouth Gaseous Diffusion Plant			
Uranium Enrichment D&D Fund			
Pens & Comm & Reg Support Portsmouth	0	0	1,795
Portsmouth Gaseous Diffusion Plant	155,331	137,613	160,000
Total, Uranium Enrichment D&D Fund	**155,331**	**137,613**	**161,795**
Total, Portsmouth Gaseous Diffusion Plant	**155,331**	**137,613**	**161,795**
Total, Uranium Enrichment Decon. & Decom. Fund	**448,231**	**598,574**	**530,976**

[SEC. 301. (a) No appropriation, funds, or authority made available by this title for the Department of Energy shall be used to initiate or resume any program, project, or activity or to prepare or initiate Requests For Proposals or similar arrangements (including Requests for Quotations, Requests for Information, and Funding Opportunity Announcements) for a program, project, or activity if the program, project, or activity has not been funded by Congress.

(b)(1) Unless the Secretary of Energy notifies the Committees on Appropriations of the House of Representatives and the Senate at least 3 full business days in advance, none of the funds made available in this title may be used to—

(A) make a grant allocation or discretionary grant award totaling $1,000,000 or more;

(B) make a discretionary contract award or Other Transaction Agreement totaling $1,000,000 or more, including a contract covered by the Federal Acquisition Regulation;

(C) issue a letter of intent to make an allocation, award, or Agreement in excess of the limits in subparagraph (A) or (B); or

(D) announce publicly the intention to make an allocation, award, or Agreement in excess of the limits in subparagraph (A) or (B).

(2) The Secretary of Energy shall submit to the Committees on Appropriations of the House of Representatives and the Senate within 15 days of the conclusion of each quarter a report detailing each grant allocation or discretionary grant award totaling less than $1,000,000 provided during the previous quarter.

(3) The notification required by paragraph (1) and the report required by paragraph (2) shall include the recipient of the award, the amount of the award, the fiscal year for which the funds for the award were appropriated, the account and program, project, or activity from which the funds are being drawn, the title of the award, and a brief description of the activity for which the award is made.

(c) The Department of Energy may not, with respect to any program, project, or activity that uses budget authority made available in this title under the heading "Department of Energy—Energy Programs", enter into a multiyear contract, award a multiyear grant, or enter into a multiyear cooperative agreement unless—

(1) the contract, grant, or cooperative agreement is funded for the full period of performance as anticipated at the time of award; or

(2) the contract, grant, or cooperative agreement includes a clause conditioning the Federal Government's obligation on the availability of future year budget authority and the Secretary notifies the Committees on Appropriations of the House of Representatives and the Senate at least 3 days in advance.

(d) Except as provided in subsections (e), (f), and (g), the amounts made available by this title shall be expended as authorized by law for the programs, projects, and activities specified in the "Final Bill" column in the "Department of Energy" table included under the heading "Title III—Department of Energy" in the explanatory statement described in section 4 (in the matter preceding division A of this consolidated Act).

(e) The amounts made available by this title may be reprogrammed for any program, project, or activity, and the Department shall notify the Committees on Appropriations of the House of Representatives and the Senate at least 30 days prior to the use of any proposed reprogramming which would cause any program, project, or activity funding level to increase or decrease by more than $5,000,000 or 10 percent, whichever is less, during the time period covered by this Act.

(f) None of the funds provided in this title shall be available for obligation or expenditure through a reprogramming of funds that—

(1) creates, initiates, or eliminates a program, project, or activity;

(2) increases funds or personnel for any program, project, or activity for which funds are denied or restricted by this Act; or

(3) reduces funds that are directed to be used for a specific program, project, or activity by this Act.

(g)(1) The Secretary of Energy may waive any requirement or restriction in this section that applies to the use of funds made available for the Department of Energy if compliance with such requirement or restriction would pose a substantial risk to human health, the environment, welfare, or national security.

(2) The Secretary of Energy shall notify the Committees on Appropriations of the House of Representatives and the Senate of any waiver under paragraph (1) as soon as practicable, but not later than 3 days after the date of the activity to which a requirement or restriction would otherwise have applied. Such notice shall include an explanation of the substantial risk under paragraph (1) that permitted such waiver.**]**

SEC. **[**302**]***301*. The unexpended balances of prior appropriations provided for activities in this Act may be available to the same appropriation accounts for such activities established pursuant to this title. Available balances may be merged with

funds in the applicable established accounts and thereafter may be accounted for as one fund for the same time period as originally enacted.

SEC. **[**303**]***302*. Funds appropriated by this or any other Act, or made available by the transfer of funds in this Act, for intelligence activities are deemed to be specifically authorized by the Congress for purposes of section 504 of the National Security Act of 1947 (50 U.S.C. 414) during fiscal year **[**2014**]** *2015* until the enactment of the Intelligence Authorization Act for fiscal year **[**2014**]** *2015*.

SEC. **[**304**]***303*. None of the funds made available in this title shall be used for the construction of facilities classified as high-hazard nuclear facilities under 10 CFR Part 830 unless independent oversight is conducted by the Office of Health, Safety, and Security to ensure the project is in compliance with nuclear safety requirements.

SEC. **[**305**]***304*. None of the funds made available in this title may be used to approve critical decision-2 or critical decision-3 under Department of Energy Order 413.3B, or any successive departmental guidance, for construction projects where the total project cost exceeds $100,000,000, until a separate independent cost estimate has been developed for the project for that critical decision.

SEC. 305. Section 15(g) of Public Law 85–536 (15 U.S.C. 644), as amended, is further amended by striking paragraph (3).

[SEC. 306. (a) Any determination (including a determination made prior to the date of enactment of this Act) by the Secretary pursuant to section 3112(d)(2)(B) of the USEC Privatization Act (110 Stat. 1321–335), as amended, shall be valid for not more than 2 calendar years subsequent to such determination.

(b) Not less than 30 days prior to the provision of uranium in any form the Secretary shall notify the House and Senate Committees on Appropriations of the following:

(1) the amount of uranium to be provided;

(2) an estimate by the Secretary of the gross fair market value of the uranium on the expected date of the provision of the uranium;

(3) the expected date of the provision of the uranium;

(4) the recipient of the uranium; and

(5) the value the Secretary expects to receive in exchange for the uranium, including any adjustments to the gross fair market value of the uranium.**]**

[SEC. 307. Section 20320 of the Continuing Appropriations Resolution, 2007, Public Law 109–289, division B, as amended by the Revised Continuing Appropriations Resolution, 2007, Public Law 110–5, is amended by striking in subsection (c) "an annual review" after "conduct" and inserting in lieu thereof "a review every three years".**]**

[SEC. 308. None of the funds made available by this or any subsequent Act for fiscal year 2014 or any fiscal year hereafter may be used to pay the salaries of Department of Energy employees to carry out the amendments made by section 407 of division A of the American Recovery and Reinvestment Act of 2009.**]**

SEC. **[**309**]***306*. Notwithstanding section 307 of Public Law 111–85, of the funds made available by the Department of Energy for activities at Government-owned, contractor-operated laboratories funded in this or any subsequent Energy and Water Development Appropriations Act for any fiscal year, the Secretary may authorize a specific amount, not to exceed 6 percent of such funds, to be used by such laboratories for laboratory directed research and development.

[SEC. 310. Notwithstanding section 301(c) of this Act, none of the funds made available under the heading "Department of Energy—Energy Programs—Science" may be used for a multiyear contract, grant, cooperative agreement, or Other Transaction Agreement of $1,000,000 or less unless the contract, grant, cooperative agreement, or Other Transaction Agreement is funded for the full period of performance as anticipated at the time of award.**]**

[SEC. 311. (a) Not later than June 30, 2014, the Secretary shall submit to the Committees on Appropriations of the House of Representatives and the Senate a tritium and enriched uranium management plan that provides—

(1) an assessment of the national security demand for tritium and low and highly enriched uranium through 2060;

(2) a description of the Department of Energy's plan to provide adequate amounts of tritium and enriched uranium for national security purposes through 2060; and

(3) an analysis of planned and alternative technologies which are available to meet the supply needs for tritium and

enriched uranium for national security purposes, including weapons dismantlement and down-blending.

(b) The analysis provided by (a)(3) shall include a detailed estimate of the nearand long-term costs to the Department of Energy should the Tennessee Valley Authority no longer be a viable tritium supplier.**]**

[SEC. 312. The Secretary of Energy shall submit to the congressional defense committees (as defined in U.S.C. 101(a)(16)), a report on each major warhead refurbishment program that reaches the Phase 6.3 milestone, and not later than April 1, 2014 for the B61–12 life extension program, that provides an analysis of alternatives which includes—

(1) a full description of alternatives considered prior to the award of Phase 6.3;

(2) a comparison of the costs and benefits of each of those alternatives, to include an analysis of trade-offs among cost, schedule, and performance objectives against each alternative considered;

(3) identification of the cost and risk of critical technology elements associated with each alternative, including technology maturity, integration risk, manufacturing feasibility, and demonstration needs;

(4) identification of the cost and risk of additional capital asset and infrastructure capabilities required to support production and certification of each alternative;

(5) a comparative analysis of the risks, costs, and scheduling needs for any military requirement intended to enhance warhead safety, security, or maintainability, including any requirement to consolidate and/or integrate warhead systems or mods as compared to at least one other feasible refurbishment alternative the Nuclear Weapons Council considers appropriate; and

(6) a life-cycle cost estimate for the alternative selected that details the overall cost, scope, and schedule planning assumptions. For the B61–12 life extension program, the life cycle cost estimate shall include an analysis of reduced life cycle costs for Option 3b, including cost savings from consolidating the different B61 variants.**]**

[SEC. 313. (a) IN GENERAL.—Subject to subsections (b) through (d), the Secretary may appoint, without regard to the provisions of chapter 33 of title 5, United States Code, governing appointments in the competitive service, exceptionally well qualified individuals to scientific, engineering, or other critical technical positions.

(b) LIMITATIONS.—

(1) NUMBER OF POSITIONS.—The number of critical positions authorized by subsection (a) may not exceed 120 at any one time in the Department.

(2) TERM.—The term of an appointment under subsection (a) may not exceed 4 years.

(3) PRIOR EMPLOYMENT.—An individual appointed under subsection (a) shall not have been a Department employee during the 2-year period ending on the date of appointment.

(4) PAY.—

(A) IN GENERAL.—The Secretary shall have the authority to fix the basic pay of an individual appointed under subsection (a) at a rate to be determined by the Secretary up to level I of the Executive Schedule without regard to the civil service laws.

(B) TOTAL ANNUAL COMPENSATION.—The total annual compensation for any individual appointed under subsection (a) may not exceed the highest total annual compensation payable at the rate determined under section 104 of title 3, United States Code.

(5) ADVERSE ACTIONS.—An individual appointed under subsection (a) may not be considered to be an employee for purposes of subchapter II of chapter 75 of title 5, United States Code.

(c) REQUIREMENTS.—

(1) IN GENERAL.—The Secretary shall ensure that—

(A) the exercise of the authority granted under subsection (a) is consistent with the merit principles of section 2301 of title 5, United States Code; and

(B) the Department notifies diverse professional associations and institutions of higher education, including those serving the interests of women and racial or ethnic minorities that are underrepresented in scientific, engineering, and mathematical fields, of position openings as appropriate.

(2) REPORT.—Not later than 2 years after the date of enactment of this Act, the Secretary and the Director of the Office of Personnel Management shall submit to Congress a report on the use of the authority provided under this section that includes, at a minimum, a description or analysis of—

(A) the ability to attract exceptionally well qualified scientists, engineers, and technical personnel;

(B) the amount of total compensation paid each employee hired under the authority each calendar year; and

(C) whether additional safeguards or measures are necessary to carry out the authority and, if so, what action, if any, has been taken to implement the safeguards or measures.

(d) TERMINATION OF EFFECTIVENESS.—The authority provided by this section terminates effective on the date that is 4 years after the date of enactment of this Act.**]**

[SEC. 314. Section 804 of Public Law 110–140 (42 U.S.C. 17283) is hereby repealed.**]**

[SEC. 315. Section 205 of Public Law 95–91 (42 U.S.C. 7135), as amended, is hereby further amended:
(1) in paragraph (i)(1) by striking "once every two years" and inserting "once every four years"; and
(2) in paragraph (k)(1) by striking "once every three years" and inserting "once every four years".**]**

[SEC. 316. Notwithstanding any other provision of law, the Department may use funds appropriated by this title to carry out a study regarding the conversion to contractor performance of any function performed by Federal employees at the New Brunswick Laboratory, pursuant to Office of Management and Budget Circular A-76 or any other administrative regulation, directive, or policy.**]**

[SEC. 317. Of the amounts appropriated for non-defense programs in this title, $7,000,000 are hereby reduced to reflect savings from limiting foreign travel for contractors working for the Department of Energy, consistent with similar savings achieved for Federal employees. The Department shall allocate the reduction among the non-security appropriations made in this title.**]**

[SEC. 318. Section 15(g) of Public Law 85–536 (15 U.S.C. 644), as amended, is hereby further amended by inserting the following at the end: "(3) First tier subcontracts that are awarded by Management and Operating contractors sponsored by the Department of Energy to small business concerns, small businesses concerns owned and controlled by service disabled veterans, qualified HUBZone small business concerns, small business concerns owned and controlled by socially and economically disadvantaged individuals, and small business concerns owned and controlled by women, shall be considered toward the annually established agency and Government-wide goals for procurement contracts awarded.".**]**

[SEC. 319. (a) ESTABLISHMENT.—The Secretary shall establish an independent commission to be known as the "Commission to Review the Effectiveness of the National Energy Laboratories." The National Energy Laboratories refers to all Department of Energy and National Nuclear Security Administration national laboratories.

(b) MEMBERS.—

(1) The Commission shall be composed of nine members who shall be appointed by the Secretary of Energy not later than May 1, 2014, from among persons nominated by the President's Council of Advisors on Science and Technology.

(2) The President's Council of Advisors on Science and Technology shall, not later than March 15, 2014, nominate not less than 18 persons for appointment to the Commission from among persons who meet qualification described in paragraph (3).

(3) Each person nominated for appointment to the Commission shall—

(A) be eminent in a field of science or engineering; and/or

(B) have expertise in managing scientific facilities; and/or

(C) have expertise in cost and/or program analysis; and

(D) have an established record of distinguished service.

(4) The membership of the Commission shall be representative of the broad range of scientific, engineering, financial, and managerial disciplines related to activities under this title.

(5) No person shall be nominated for appointment to the Board who is an employee of—

(A) the Department of Energy;

(B) a national laboratory or site under contract with the Department of Energy;

(C) a managing entity or parent company for a national laboratory or site under contract with the Department of Energy; or

(D) an entity performing scientific and engineering activities under contract with the Department of Energy.

(c) COMMISSION REVIEW AND RECOMMENDATIONS.—

(1) The Commission shall, by no later than February 1, 2015, transmit to the Secretary of Energy and the Committees on Appropriations of the House of Representatives and the Senate a report containing the Commission's findings and conclusions.

(2) The Commission shall address whether the Department of Energy's national laboratories—

(A) are properly aligned with the Department's strategic priorities; (B) have clear, well understood, and properly balanced missions that are not unnecessarily redundant and duplicative;

(C) have unique capabilities that have sufficiently evolved to meet current and future energy and national security challenges;

(D) are appropriately sized to meet the Department's energy and national security missions; and

(E) are appropriately supporting other Federal agencies and the extent to which it benefits DOE missions.

(3) The Commission shall also determine whether there are opportunities to more effectively and efficiently use the capabilities of the national laboratories, including consolidation and realignment, reducing overhead costs, reevaluating governance models using industrial and academic bench marks for comparison, and assessing the impact of DOE's oversight and management approach. In its evaluation, the Commission should also consider the cost and effectiveness of using other research, development, and technology centers and universities as an alternative to meeting DOE's energy and national security goals.

(4) The Commission shall analyze the effectiveness of the use of laboratory directed research and development (LDRD) to meet the Department of Energy's science, energy, and national security goals. The Commission shall further evaluate the effectiveness of the Department's oversight approach to ensure LDRD-funded projects are compliant with statutory requirements and congressional direction, including requirements that LDRD projects be distinct from projects directly funded by appropriations and that LDRD projects derived from the Department's national security programs support the national security mission of the Department of Energy. Finally, the Commission shall quantify the extent to which LDRD funding supports recruiting and retention of qualified staff.

(5) The Commission's charge may be modified or expanded upon approval of the Committees on Appropriations of the House of Representatives and the Senate.

(d) RESPONSE BY THE SECRETARY OF ENERGY.—

(1) The Secretary of Energy shall, by no later than April 1, 2015, transmit to Committees on Appropriations of the House of Representatives and the Senate a report containing the Secretary's approval or disapproval of the Commission's recommendations and an implementation plan for approved recommendations.**]**

[SEC. 320. The Committees on Appropriations of the House of Representatives and the Senate shall receive a 30-day advance notification with a detailed explanation of any waiver or adjustment made by the National Nuclear Security Administration's Fee Determining Official to at-risk award fees for Management and Operating contractors that result in award term extensions.**]**

[SEC. 321. To further the research, development, and demonstration of national nuclear security-related enrichment technologies, the Secretary of Energy may transfer up to $56,650,000 of funding made available in this title under the heading “National Nuclear Security Administration” to “National Nuclear Security Administration, Weapons Activities” not earlier than 30 days after the Secretary provides to the Committees on Appropriations of the House of Representatives and the Senate a cost-benefit analysis of available and prospective domestic enrichment technologies for national security needs, the scope, schedule, and cost of his preferred option, and after congressional notification and approval of the Committees on Appropriations of the House of Representatives and the Senate.**]**

[SEC. 322. None of the funds made available in this Act may be used—

(1) to implement or enforce section 430.32(x) of title 10, Code of Federal Regulations; or

(2) to implement or enforce the standards established by the tables contained in section 325(i)(1)(B) of the Energy Policy and Conservation Act (42 U.S.C. 6295(i)(1)(B)) with respect to BPAR incandescent reflector lamps, BR incandescent reflector lamps, and ER incandescent reflector lamps.**]** *(Energy and Water Development and Related Agencies Appropriations Act, 2014.)*

TITLE V—GENERAL PROVISIONS

SEC. 501. None of the funds appropriated by this Act may be used in any way, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. 1913.

SEC. 502. None of the funds made available by this Act may be used to enter into a contract, memorandum of understanding, or cooperative agreement with, make a grant to, or provide a loan or loan guarantee to any corporation that was convicted of a felony criminal violation under any Federal law within the preceding 24 months, where the awarding agency is aware of the conviction, unless **[**the**]***a Federal* agency has considered suspension or debarment of the corporation and **[**has**]** made a determination that this further action is not necessary to protect the interests of the Government.

SEC. 503. None of the funds made available by this Act may be used to enter into a contract, memorandum of understanding, or cooperative agreement with, make a grant to, or provide a loan or loan guarantee to, any corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency is aware of the unpaid tax liability, unless **[**the**]***a Federal* agency has considered suspension or debarment of the corporation and **[**has**]** made a determination that this further action is not necessary to protect the interests of the Government.

[SEC. 504. (a) None of the funds made available in title III of this Act may be transferred to any department, agency, or instrumentality of the United States Government, except pursuant to a transfer made by or transfer authority provided in this Act or any other appropriations Act for any fiscal year, transfer authority referenced in the explanatory statement described in section 4 (in the matter preceding division A of this consolidated Act), or any authority whereby a department, agency, or instrumentality of the United States Government may provide goods or services to another department, agency, or instrumentality.

(b) None of the funds made available for any department, agency, or instrumentality of the United States Government may be transferred to accounts funded in title III of this Act, except pursuant to a transfer made by or transfer authority provided in this Act or any other appropriations Act for any fiscal year, transfer authority referenced in the explanatory statement described in section 4 (in the matter preceding division A of this consolidated Act), or any authority whereby a department, agency, or instrumentality of the United States Government may provide goods or services to another department, agency, or instrumentality.

(c) The head of any relevant department or agency funded in this Act utilizing any transfer authority shall submit to the Committees on Appropriations of the House of Representatives and the Senate a semiannual report detailing the transfer authorities, except for any authority whereby a department, agency, or instrumentality of the United States Government may provide goods or services to another department, agency, or instrumentality, used in the previous 6 months and in the year-to-date. This report shall include the amounts transferred and the purposes for which they were transferred, and shall not replace or modify existing notification requirements for each authority.**]**

SEC. **[**505**]***504*. None of the funds made available by this Act may be used in contravention of Executive Order No. 12898 of February 11, 1994 ("Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations").