Statement of Thomas P. D'Agostino Undersecretary for Nuclear Security and Administrator National Nuclear Security Administration U.S. Department of Energy on the

Fiscal Year 2013 President's Budget Request Before the Senate Armed Services Committee Subcommittee on Strategic Forces

March 14, 2012

INTRODUCTION

Chairman Nelson, Ranking Member Sessions, members of the Committee, good morning and thank you for having me here to discuss the President's Fiscal Year 2013 budget request. Your ongoing support for the men and women of the Department of Energy and the work they do, and your bi-partisan leadership on some of the most challenging national security issues of our time, has helped keep the American people safe, helped protect our allies, and enhanced global security.

Earlier this month, President Obama released his budget for FY13. As you know, due in part to the constraints established by the Budget Control Act, this is a time to precisely target our investments. I want to assure you that the National Nuclear Security Administration (NNSA) and the Office of Environmental Management (EM) are being thoughtful, pragmatic, and efficient in how we complete our missions.

IMPROVING THROUGH REALIGNMENT

First, I want to acknowledge that this is the first time I have come before you with more than NNSA to discuss. In an effort to maximize the accomplishments of mission-critical projects and organize needs more closely with DOE's resources, EM and the Office of Legacy Management (LM) were aligned under my office in August 2011.

NNSA and each office have uniquely different challenges, and each remains and operates separately. However, they also have some similar challenges, and EM and LM's realignment under my role as the Under Secretary for Nuclear Security has allowed us to capitalize on the expertise that exists between the various programs in this portfolio in areas such as project management, nuclear materials and waste, and nuclear safety and security. We have already seen the benefits from this realignment.

At Savannah River Site, EM and NNSA are working closely together to utilize the H-Canyon facility and support multiple missions including: converting about 3.7 metric tons of plutonium into suitable feed for NNSA's Mixed Oxide Fuel (MOX) Fabrication Facility; removing contaminants in the plutonium to make it amenable for use as MOX feed; and reducing the amount of plutonium that EM needs to package and send to the Waste Isolation Pilot Plant for disposal. These activities will occur in addition to EM utilizing H-Canyon to disposition spent (used) nuclear fuel in H-Canyon that is not suitable for extended storage in L-Basin.

At Oak Ridge, we are working together to accelerate the transfer of certain components of the Uranium-233 inventory at Oak Ridge National Laboratory that are valuable for national security applications from EM to NNSA. The transfer of this material will support ongoing NNSA missions related to safety, nuclear emergency response, and special nuclear material measurement and detection. This initiative will result in cost savings for the EM program and enable EM to move forward on cleanup of nuclear facilities.

EM has established a partnership with NNSA to build upon their success with the Supply Chain Management Center, leveraging buying power across the combined EM and NNSA complexes for commonly used goods and services with the objective of realizing cost savings for the EM program similar to those NNSA has achieved.

In addition, NNSA is also working closely with LM to benchmark long-term surveillance and maintenance costs. Large closed sites with ongoing groundwater issues, such as Fernald, Rocky Flats, Weldon Spring, Tuba City, and Mound, may have post-closure requirements similar to some of the Savannah River facilities, so we are learning from each other by comparing scope and cost to refine our estimates.

It has been less than a year since the realignment, and we are already seeing tangible benefits from working in a more thoughtful, coordinated way. Still, NNSA and EM have separate budget requests, and I'll talk about both here today.

NNSA: ACHIEVING THE PRESIDENT'S NUCLEAR SECURITY OBJECTIVES, SHAPING THE FUTURE

In April 2009 in Prague, President Obama shared his vision for a world without nuclear weapons, free from the threat of nuclear terrorism, and united in our approach toward shared nuclear security goals. The President's FY13 request for NNSA is \$11.5 billion, an increase of \$536 million, or 4.9%, over the FY12 appropriation. The request reaffirms the national commitment to his vision, applying world-class science that addresses our nation's greatest nuclear security challenges and building NNSA's 21st century nuclear security enterprise through key investments in our people and infrastructure, including the revitalization of our existing facilities.

We are doing this in a number of key ways. We are continuing our critical work to maintain the nation's nuclear stockpile, and ensuring that, as long as nuclear weapons exist, the stockpile is

safe, secure, and effective. The FY13 budget provides \$7.58 billion for our Weapons Activities account, an increase of 5% over FY12, to implement the President's strategy in coordination with our partners at the Department of Defense.

The President continues to support our Life Extension Programs including funding for B61-12 activities in response to the Nuclear Weapons Council's (NWC) anticipated approval and entry into Phase 6.3 Development Engineering. He has also requested increased funding for our Stockpile Systems to support the W78 and W88 life extension study, which I discussed with you last year.

The President's budget also reflects his commitment to completing key dismantlements, with \$51.3 million requested in FY13 to continue reducing the number of legacy nuclear weapons retired from the stockpile. NNSA has previously committed to completing the dismantlement of all warheads retired as of FY09 by FY22, and we continue to be on a path to do that. In fact, in FY11, NNSA completed the dismantlement of the last B53 nuclear bomb, one of the largest ever built, ahead of schedule and under budget. We also eliminated the last components of the W70 warhead which was originally in the U.S. Army's arsenal.

Our request for investments in the science, technology, and engineering that support NNSA's missions will ensure that our national security laboratories continue to lead the world in advanced scientific capabilities. \$150.6 million is requested for our engineering campaign, which reflects the need for validation-related testing and surety options required for current and future refurbishments; \$350.1 million is requested for our science campaign, expanding and refining our experiments and capabilities, which coupled to simulation, improves our confidence in and broadens the national security application of our predictive capabilities; and \$460 million is requested for our inertial confinement fusion and high yield campaign, to operate NNSA's suite of world-leading high energy density facilities -- National Ignition Facility (NIF), Omega, and Z -- to support stockpile stewardship in a safe and secure manner.

The Advanced Simulation and Computing campaign's request of \$600 million is requested for the continued improvement of full system calculations and metric suites that are essential to annual assessments and also to future stockpile changes. Our capabilities directly impact our stockpile by generating incredibly sophisticated models against which we can validate our nuclear weapons codes. Not only has supercomputing helped us solve some existing questions such as energy balance, it also allows us to plan for issues that impact the future health of our deterrent: aging, component lifetimes, and new models for abnormal and hostile environment certification. Supercomputing is critical for LEPs and stockpile modernization: the implementation of various concepts such as reuse and enhanced multipoint safety are only possible with the power of ASC platforms.

For over a decade, NNSA has been building the science, technology, and engineering tools and capabilities needed to take care of the stockpile. We are now entering a time when we will fully utilize these analytical tools and capabilities towards the mission of maintaining a safe, secure, and effective stockpile and performing the necessary life extension work. These capabilities also

provide the critical base for nonproliferation and counter-terrorism work, allowing us to apply our investments to the full scope of our mission.

To support our stockpile and to continue producing the world-class capabilities we need to modernize our Cold War-era facilities and maintain the Nation's expertise in uranium processing and plutonium research. This budget includes \$2.24 billion to maintain our infrastructure, and execute our construction projects.

The President also requests support for infrastructure improvements necessary to maintain the stockpile well into the future. Major efforts include extending the life of enduring facilities needed for Directed Stockpile Work (DSW) and ST&E program requirements, construction of the Uranium Processing Facility at Y-12, and construction of the TRU Waste Facility at Los Alamos National Laboratory. Funding will also provide for the start of construction of the Electrical Infrastructure Upgrades project at Lawrence Livermore and Los Alamos National Laboratories, and continued construction activities for various projects at Los Alamos and Sandia National Laboratories, the Y-12 National Security Complex, and Pantex. The budget request also includes the resources we need to ensure a comprehensive physical and cyber security posture that provides strong security to support NNSA missions -- protecting our nuclear materials, facilities, and information.

However, our nuclear deterrent is only one part of NNSA's mission. Our nonproliferation programs perform an equally critical function. One of our most important missions has been to support the Administration's commitment to secure the most vulnerable nuclear material across the globe in four years. Our accomplishments in securing plutonium and highly enriched uranium around the world have made it significantly more difficult to acquire and traffic the materials required to make an improvised nuclear device, and I am proud to say that we are on track to meet our goals to remove or dispose of 4,353 kilograms of highly enriched uranium and plutonium in foreign countries, and equip approximately 229 buildings containing weapons-usable material with state-of-the-art security upgrades.

The Defense Nuclear Nonproliferation budget request provides the \$2.46 billion to continue these and other critical nonproliferation and nuclear security efforts. Our continued focus on innovative and ambitious nonproliferation and nuclear security efforts is vital. The threat is not gone, and the consequences of nuclear terrorism and state proliferation would be devastating. Detonation of a nuclear device anywhere in the world would lead to significant loss of life, and overwhelming economic, political, and psychological consequences. We must remain committed to reducing the risk of nuclear terrorism and state-based proliferation.

The FY13 budget request also gives us the resources we need to maintain our one-of-a-kind emergency response capabilities, which allow us to respond to a nuclear or radiological incidents anywhere in the world. In FY11, we were able to assist the US military, military families, and the Japanese people by deploying our unique emergency response assets in the aftermath of devastating tsunami that affected the Fukushima Daiichi Nuclear Power Plant.

In response to the President's concern regarding the threat of nuclear terrorism, which is also a key goal within the 2010 Nuclear Posture Review, we have established a new organization that is now the focal point for all counterterrorism and counter proliferation activities within NNSA. This organization, the Office of Counterterrorism and Counterproliferation, not only provides unique technical contributions based on NNSA's core nuclear science and technology expertise, but also is designed to coordinate all nuclear counterterrorism, counterproliferation, and post-detonation nuclear forensics related efforts without drastic restructuring.

In addition, NNSA's Naval Reactors program directly supports all aspects of the U.S. Navy's nuclear fleet, which encompasses the Navy's submarines and aircraft carriers, over 40 percent of the U.S. Navy's major combatants. Currently, the nuclear fleet is composed of 54 attack submarines, 14 ballistic missile submarines, 4 guided missile submarines, and 11 aircraft carriers. Over 8,300 nuclear-trained Navy personnel safely operate the propulsion plants on these ships all over the world, and their consistent forward presence protects our national interests. Our \$1.1 billion FY13 request will support the refueling overhaul for the S8G Land-Based Prototype reactor, the design of the OHIO Replacement reactor plant, and recapitalization of our naval spent nuclear fuel infrastructure.

Each of the projects is critical to fulfillment of the Navy's longer term needs. The S8G Land-Based Prototype Refueling Overhaul reactor plant has served Naval Reactors' needs for research, development, and training since 1978, and the reactor provides a cost-effective testing platform for new technologies and components before they are introduced. To continue vital research capabilities, as well as train sufficient operators to man the Fleet, the S8G Land-Based Prototype Refueling Overhaul must begin in 2018. The OHIO Replacement reactor plant design continues and the FY13 requested amount supports continuing this work to meet the Navy's revised schedule and procurement of reactor plant components in 2019 (to support a 2021 lead-ship procurement). We need to recapitalize its naval spent fuel infrastructure in a cost-effective way that does not impede the refueling of active ships and their return to operations. The existing facility is more than 50 years old, and was never designed for its current primary mission of packaging naval spent nuclear fuel for permanent dry storage.

And finally, \$411 million is requested for NNSA's Office of the Administrator account. This funds federal personnel and provides for resources necessary to plan, manage, and oversee the operation of NNSA missions which strengthen U.S. security.

NNSA: DOING OUR PART

We are committed to being responsible stewards of taxpayer dollars. We have taken steps to ensure that we are building a capabilities-based enterprise focused on needs and solutions. We view this constrained budget environment as an additional incentive to ask ourselves how we can re-think the way we are operating, how we can innovate, and how we can get better.

For example, in close consultation with our national laboratories and national security sites, we

are adjusting our plutonium strategy by deferring for at least five years construction of the Chemistry and Metallurgy Research Replacement Nuclear Facility (CMRR-NF) project at Los Alamos National Laboratory and focusing instead on how we can meet our plutonium needs on an interim basis by using the capabilities and expertise found at existing facilities. Utilizing existing facilities will allow us to meet anticipated near term requirements for plutonium operations while focusing on other key modernization projects. Deferring CMRR-NF will have an estimated cost avoidance from 2013 to 2017 that totals approximately \$1.8 billion, which will help offset the costs of other priorities such as Weapons Lifetime Extension programs and other infrastructure needs.

We have also updated our strategy to stop the spread of dangerous nuclear material as we meet the President's four-year lockdown goal. We have developed an innovative approach to scientist engagement tailored for an age when knowledge spreads effortlessly through Google, Facebook, and Twitter.

We are not resting on old ideas to solve tomorrow's problems – we're shaping the future of nuclear security, and we're doing it in a fiscally responsible way. However, I want to stress that as we make adjustments and look toward the future, our plans are based on the FY13 budget request, which give us the resources we need to carry out our mission. Budget uncertainty adds cost and complexity to how we achieve our goals. You have been supportive of our efforts in the past, I ask again for your help in providing the stability we need to do our jobs efficiently and effectively.

NNSA: CONTINUOUSLY IMPROVING

I would like to acknowledge that I have come before you in the past and talked at length about how NNSA has been working to change the way we do business. I am proud of the work the men and women of our NNSA have done to come together and operate as one. We are defining ourselves as a fully integrated enterprise that operates efficiently, is organized to succeed, that performs our work seamlessly, and speaks with one voice.

We are improving everywhere, from our governance model to our network infrastructure, from our contracting processes to leadership and development programs. We are improving business processes by implementing the ISO 9001 standard, looking toward the future through a workforce analysis, and improving efficiency through consolidated contracts.

We are continuously improving so we are able to do the work the American people need us to do, in a time when everyone is looking to do more with less. We are positioning ourselves for the next decade by making big decisions focused on the future.

For example, after more than two years of analysis and outside reviews, we released an RFP for the combined management of the Y-12 National Security Complex and Pantex Plant, with an option for phase-in of Tritium Operations performed at the Savannah River Site. Combining contracts and site offices will allow us to improve performance, reduce the cost of work, and

operate as an integrated enterprise. We also decided to compete the contract for management and operation of Sandia National Laboratories, a move designed to find meaningful improvement in performance and reduce cost for taxpayers.

We have taken other significant steps to continue improving, from top-to-bottom. We created an Acquisition and Project Management organization to help institutionalize our commitment to improving the way we do business. This move will improve the quality of our work while keeping our projects on time and on budget.

We awarded a Blanket Purchasing Agreement for Enterprise Construction Management Services. The BPA will standardize our approach to project management across the enterprise and provide subject matter experts to provide independent analysis and advice related to the design and construction of facilities.

And, importantly, we have institutionalized a culture of safety. Through a unique series of Biennial Reviews, including reviews at Headquarters, we have improved nuclear safety across our Nuclear Security Enterprise. We have provided objective, value-added information to managers that ensure our nuclear safety oversight is consistent and effective. Since the reviews began in 2005, we have seen continuous improvement at every site.

ENVIRONMENTAL MANAGEMENT

The Senior Advisor for the Office of Environmental Management will provide more detail to you through separate testimony, but I want to note that EM's FY 2013 budget request of \$5.65 billion enables the continued safe cleanup of the environmental legacy brought about from five decades of nuclear weapons development and government-sponsored nuclear energy research. EM's cleanup priorities are based on risk while continuing to meet regulatory compliance commitments. Completing cleanup protects human health and the environment of the communities surrounding our sites and enables other crucial DOE missions to continue. By reducing the cleanup footprint, EM is lowering the cost of security, surveillance, infrastructure, and overhead activities that would otherwise continue for years to come. A core value of EM is safety, which is incorporated into every aspect of the EM program. EM has maintained a strong safety record, continuously strives for a workplace free of accidents or incidents, and promotes a robust safety culture throughout the complex.

CONCLUSION

Our mission is vital, and your past support has been key in helping us accomplish it. The FY13 budget reflects our commitment to keeping the American people safe while continuously improving and doing our part in a time of fiscal austerity. We are looking toward the future and building an organization that is aligned to succeed. I look forward to working with each of you to help us do that. Thank you.

National Nuclear Security Administration

Appropriation and Program Summary Tables Outyear Appropriation Summary Tables

FY 2013 BUDGET TABLES

National Nuclear Security Administration Overview

Appropriation Summary ^{a b}

	FY 2016 Request 434,848 0	FY 2017 Request
Current Enacted Request Request Request F Office of the Administrator	Request 434,848	Request
Office of the Administrator	434,848	•
	•	444.074
Flogram Direction	•	
Rescission of Prior Year Balances -5,700 0 0 0		444,276
Total, Office of the Administrator 393,293 410,000 411,279 418,742 426,599	434,848	444,276
10tal, Office of the Administrator 593,293 410,000 411,279 416,742 420,399	434,040	444,270
Weapons Activities Appropriation		
Defense Programs		
Directed Stockpile Work 1,905,078 1,873,694 2,088,274		
Science Campaign 366,167 332,958 350,104		
Engineering Campaign 142,010 142,636 150,571		
Inertial Confinement Fusion Ignition and High Yield Campaign 478,105 474,812 460,000		
Advanced Simulation and Computing Campaign 613,620 618,076 600,000		
Readiness Campaign 91,695 128,406 130,095		
Readiness in Technical Base and Facilities 1,842,519 2,004,785 2,239,828		
Secure Transportation Asset 251,806 242,802 219,361		
Total, Defense Programs 5,691,000 5,818,169 6,238,233		
Nuclear Counterterrorism Incident Response 232,503 220,969 247,552		
Facilities and Infrastructure Recapitalization Program 93,574 96,120 0		
Site Stewardship 104,727 78,581 90,001		
Safeguards and Security		
Defense Nuclear Security 717,722 695,679 0		
Cyber Security 124,231 126,370 0		
Subtotal, Safeguards and Security 841,953 822,049 0		
Defense Nuclear Security 0 0 643,285		
NNSA CIO Activities 0 0 155,022		
Science, Technology and Engineering Capability 19,794 0 0		
National Security Applications 0 10,000 18,248		
Legacy Contractor Pensions 0 168,232 185,000		
Use of Prior Year Balances -67,776 0 0		
Rescission of Prior Year Balances -50,000 0 0		
Total, Weapons Activities 6,865,775 7,214,120 7,577,341 7,613,033 7,755,866 7	7 905 841	8,077,24
7,000,770 7,214,120 7,077,041 7,010,000 7	7,703,041	0,077,24
Defense Nuclear Nonproliferation		
Nonproliferation and Verification Research and Development 355,407 354,150 548,186 412,622 420,344	428,417	437,71
Nonproliferation and International Security 147,494 153,594 150,119 156,363 167,070	173,718	177,49
International Nuclear Materials Protection and Cooperation 578,633 569,927 311,000 282,628 288,026	293,870	300,17
Fissile Materials Disposition 802,198 685,386 921,305 950,000 960,000	975,000	996,17
Global Threat Reduction Initiative 444,689 498,000 466,021 485,775 494,866	504,371	515,32
Legacy Contractor Pensions 0 55,823 62,000 63,138 64,320	65,555	66,97
Use of Prior Year Balances -2,050 0 0 0 0	0	(
Rescission of Prior Year Balances -45,000 -21,000 0 0	0	(
Total, Defense Nuclear Nonproliferation 2,281,371 2,295,880 2,458,631 2,350,526 2,394,626 2		
N 10 ·		
Naval Reactors		
Naval Reactors 986,526 1,080,000 1,088,635 1,108,391 1,129,186 1		
Rescission of Prior Year Balances -1,000 0 0 0 0 Tatal Naval Rescission	1 151 021	1 175 071
Total, Naval Reactors 985,526 1,080,000 1,088,635 1,108,391 1,129,186 1	1,151,021	1,175,97
Total, NNSA 10,525,965 11,000,000 11,535,886 11,490,692 11,706,277 11	1,932,641	12,191,34

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^a The annual totals include an allocation to NNSA from the Department of Defense. The amounts included are \$677,076 in FY 2014; \$712,344 in FY 2015; \$766,924 in FY 2016; and \$781,204 in FY 2017.

^b FY 2012 Enacted reflects a rescission of \$27,300 associated with savings from the contractor pay freeze. Of the \$27,300, \$19,877 was rescinded from Weapons Activities and \$7,423 was rescinded from Defense Nuclear Nonproliferation.

NNSA Future-Years Nuclear Security Program³

- 1	(Dol	lars	in	Thousands)

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
	Request	Request	Request	Request	Request
NNSA					
Office of the Administrator	411,279	418,742	426,599	434,848	444,276
Weapons Activities	7,577,341	7,613,033	7,755,866	7,905,841	8,077,242
Defense Nuclear Nonproliferation	2,458,631	2,350,526	2,394,626	2,440,931	2,493,850
Naval Reactors	1,088,635	1,108,391	1,129,186	1,151,021	1,175,975
Total, NNSA	11,535,886	11,490,692	11,706,277	11,932,641	12,191,343

 3 The annual totals include an allocation to NNSA from the Department of Defense. The amounts included are \$677,076 in FY 2014; \$712,344 in FY 2015; \$766,924 in FY 2016; and \$781,204 in FY 2017.

Office of the Administrator

Overview Appropriation Summary by Program

	(Dollars in Thousands)			
	FY 2011 FY 2012 FY 2		FY 2013	
	Current	Enacted	Request	
Office of the Administrator				
NNSA Program Direction				
Salaries and Benefits	282,967	301,995	304,474	
Travel	16,536	15,500	15,500	
Support Services	22,445	20,500	20,500	
Other Related Expenses	77,045	72,005	70,805	
Subtotal, Office of the Administrator	398,993	410,000	411,279	
Rescission of Prior Year Balances	-5,700	0	0	
Total. Office of the Administrator	393.293 410.000 411.27			

Outyear Appropriation Summary by Program

		(Dollars in Thousands)			
	FY 2014	FY 2014 FY 2015 FY 2016 FY			
	Request	Request	Request	Request	
Office of the Administrator					
NNSA Program Direction					
Salaries and Benefits	311,937	319,794	328,043	337,471	
Travel	15,500	15,500	15,500	15,500	
Support Services	20,500	20,500	20,500	20,500	
Other Related Expenses	70,805	70,805	70,805	70,805	
Total, Office of the Administrator	418,742	426,599	434,848	444,276	

Weapons Activities

Overview Appropriation Summary by Program

(dollars in thousands) FY 2012 FY 2011 FY 2013 Enacted ^a Current Request **Weapons Activities** Directed Stockpile Work 1,905,078 1,873,694 2,088,274 Science Campaign 366,167 332,958 350,104 Engineering Campaign 142,010 142,636 150,571 Inertial Confinement Fusion Ignition and High Yield Campaign 478,105 474,812 460,000 Advanced Simulation and Computing Campaign 613,620 618,076 600,000 Readiness Campaign 91,695 128,406 130,095 Readiness in Technical Base and Facilities 1,842,519 2,004,785 2,239,828 242,802 Secure Transportation Asset 251,806 219,361 232,503 247,552 Nuclear Counterterrorism Incident Response 220,969 Facilities and Infrastructure Recapitalization Program 93,574 96,120 0 Site Stewardship 104,727 78,581 90,001 717,722 Defense Nuclear Security 695,679 643,285 Cyber Security 124,231 126,370 0 NNSA CIO Activities 155,022 0 0 Science, Technology and Engineering Capability 19,794 0 0 National Security Applications 10,000 18,248 0 Legacy Contractor Pensions 0 168,232 185,000 6,983,551 **Subtotal Weapons Activities** 7,214,120 7,577,341 Use of Prior Year Balances -67,776 0 0 0 0 Rescission of Prior Year Balances -50,000 **Total, Weapons Activities** 6,865,775 7,214,120 7,577,341

Out-Year Appropriation Summary by Program

Directed Stockpile Work

Funding Profile by Subprogram and Activity

	(Dollars in Thousands)		
	FY 2011 FY 2012 FY 20		FY 2013
	Current	Enacted	Request
Directed Stockpile Work			
Life Extension Programs	248,357	479,098	543,931
Stockpile Systems	651,333	486,123	590,409
Weapons Dismantlement and Disposition	57,968	56,591	51,265
Stockpile Services	947,420	851,882	902,669
Total, Directed Stockpile Work 1,905,078 1,873,694 2,0		2,088,274	

Out-Year Funding Profile by Subprogram and Activity

Science Campaign

Funding Profile by Subprogram and Activity

(Dollars in Thousands)

366,167	332,958	350,104
Current	Enacted	Request
FY 2011	FY 2012	FY 2013

Total, Science Campaign

Out-Year Funding Profile by Subprogram and Activity

Engineering Campaign

Funding Profile by Subprogram and Activity

(dollars in thousands)

142.010	142.636	150.571
Current	Enacted	Request
FY 2011	FY 2012	FY 2013

Total, Engineering Campaign

Out-Year Funding Profile by Subprogram and Activity

Inertial Confinement Fusion Ignition and High Yield Campaign Funding Profile by Subprogram and Activity

(Dollars in Thousands)

478,105	474,812	460,000
Current	Enacted	Request
FY 2011	FY 2012	FY 2013

Total, Inertial Confinement Fusion and High Yield Campaign

Out-Year Funding Profile by Subprogram and Activity

Advanced Simulation and Computing Campaign

Funding Profile by Subprogram and Activity

(Dollars in Thousands)

613,620	618,076	600,000
Current	Enacted	Request
FY 2011	FY 2012	FY 2013

Total, Advanced Simulation and Computing Campaign

Out-Year Funding Profile by Subprogram and Activity

Readiness Campaign

Funding Profile by Subprogram and Activity

(Dollars in Thousands)

91,695	128,406	130,095
Current	Enacted	Request
FY 2011	FY 2012	FY 2013

Total, Readiness Campaign

Out-Year Funding Profile by Subprogram and Activity

Readiness in Technical Base and Facilities

Funding Profile by Subprogram and Activity

	(Dollars in Thousands)		
	FY 2011	FY 2012	FY 2013
	Current	Enacted	Request
Readiness in Technical Base and Facilities			
Operations of Facilities	1,255,307	1,281,847	1,419,403
Program Readiness	69,736	73,962	0
Material Recycle and Recovery	77,493	77,780	0
Containers	27,820	28,892	0
Storage	23,945	31,196	0
Nuclear Operations Capability Support	0	0	203,346
Science Technology and Engineering Support	0	0	166,945
Subtotal, Operations and Maintenance	1,454,301	1,493,677	1,789,694
Construction	388,218	511,108	450,134
Total, Readiness in Technical Base and Facilities	1,842,519	2,004,785	2,239,828

Out-Year Funding Schedule by Subprogram and Activity

Secure Transportation Asset

Funding Profile by Subprogram and Activity

	(Dol	(Dollars in Thousands)		
	FY 2011	FY 2012	FY 2013	
	Current	Enacted	Request	
Secure Transportation Asset (STA)				
Operations and Equipment	156,87	7 144,800	114,965	
Program Direction	94,92	98,002	104,396	
Total, Secure Transportation Asset	251,80	5 242,802	219,361	

${\bf Secure\ Transportation\ Asset\ -\ Operations\ and\ Equipment}$

Funding Profile by Subprogram and Activity

	(Dollars in Thousands)		
	FY 2011 FY 2012		FY 2013
	Current	Enacted	Request
Operations and Equipment			
Mission Capacity	83,718	84,376	56,458
Security Safety Capability	34,670	19,986	22,457
Infrastructure and C5 Systems	28,867	29,449	24,199
Program Management	9,622	10,989	11,851
Total, Operations and Equipment	156,877	144,800	114,965

Secure Transportation Asset - Program Direction

Funding Profile by Subprogram and Activity

Total Full Time Equivalents		637	622	639
Total, Program Direction	94,	929	98,002	104,396
Other Related Expenses	6,	951	7,631	12,302
Travel	8,	334	7,758	7,216
Salaries and Benefits	79,	644	82,613	84,878
Program Direction				
	Curre	nt	Enacted	Request
	FY 20	FY 2011 FY 2012		FY 2013
	1)	(Dollars in Thousands)		

Out Year Funding Profile by Subprogram and Activity

Nuclear Counterterrorism Incident Response

Funding Profile by Subprogram and Activity

	(Dolla	(Dollars in Thousands)		
	FY 2011	FY 2012	FY 2013	
	Current	Enacted	Request	
Nuclear Counterterrorism Incident Response	-	·	-	
(Homeland Security) ^a				
Emergency Response (Homeland Security) ^a	135,429	136,185	150,043	
National Technical Nuclear Forensics (Homeland				
Security) ^a	11,446	11,589	11,694	
Emergency Management (Homeland Security) ^a	7,494	7,153	6,629	
Operations Support (Homeland Security) ^a	8,488	8,691	8,799	
International Emergency Management and				
Cooperation	6,986	7,129	7,139	
Nuclear Counterterrorism (Homeland Security) ^a	62,660	50,222	63,248	
Total, Nuclear Counterterrorism Incident Response	232,503	220,969	247,552	

Out-Year Target Funding Profile by Subprogram and Activity

The outyear numbers for Weapons Activities do not reflect programmatic requirements. Rather, they are an extrapolation of the FY 2013 request based on rates of inflation in the Budget Control Act of 2011. The Administration will develop outyear funding levels based on actual programmatic requirements at a later date.

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⁴ Office of Management and Budget (OMB) Homeland Security designation.

Facilities and Infrastructure Recapitalization Program

Funding Profile by Subprogram and Activity

	(Dolla	(Dollars in Thousands)		
	FY 2011	FY 2012	FY 2013	
	Current	Enacted	Request	
Facilities and Infrastructure Recapitalization Program				
Operations and Maintenance (O&M)				
Recapitalization	77,160	81,720	0	
Infrastructure Planning	6,494	9,400	0	
Facility Disposition	9,920	5,000	0	
Total, O&M Facilities and Infrastructure				
Recapitalization Program	93,574	96,120	0	

Out-Year Funding Profile by Subprogram and Activity

Site Stewardship

Funding Profile by Subprogram and Activity

	(Dolla	(Dollars in Thousands)		
	FY 2011	FY 2012	FY 2013	
	Current	Enacted	Request	
Site Stewardship				
Operations and Maintenance				
Environmental Projects and Operations	41,970	45,191	46,978	
Energy Modernization and Investment Program	6,618	0	10,262	
Nuclear Materials Integration	41,169	33,390	18,963	
Corporate Project Management	0	0	13,798	
Total, Operations and Maintenance	89,757	78,581	90,001	
Construction	14,970	0	0	
Total, Site Stewardship	104,727	78,581	90,001	

Out-Year Funding Profile by Subprogram and Activity

Defense Nuclear Security

Funding Profile by Subprogram and Activity

	(Dollars in Thousands)		
	FY 2011	FY 2012	FY 2013
	Current	Enacted	Request
Defense Nuclear Security			
Operations and Maintenance (Homeland Security)			
Protective Forces	414,166	418,758	341,676
Physical Security Systems	73,794	82,783	98,267
Information Security	25,943	30,117	34,237
Personnel Security	30,913	37,285	37,781
Materials Control and Accountability	35,602	34,592	34,484
Program Management	78,183	75,595	96,840
Technology Deployment, Physical Security	7,225	4,797	0
Total, Operations and Maintenance (Homeland Security)	665,826	683,927	643,285
Construction (Homeland Security)	51,896	11,752	0
Total, Defense Nuclear Security	717,722	695,679	643,285

Out-Year Funding Profile by Subprogram and Activity

Cyber Security

Funding Profile by Subprogram and Activity

	(Dollars in Thousands)		
	FY 2011 FY 2012 FY 201		FY 2013
	Current	Enacted	Request
Cyber Security (Homeland Security)			
Infrastructure Program	97,735	107,374	0
Enterprise Secure Computing	21,500	14,000	0
Technology Application Development	4,996	4,996	0
Total, Cyber Security	124,231	126,370	0

Out-Year Funding Profile by Subprogram and Activity

NNSA CIO Activities

Funding Profile by Subprogram and Activity

(Dollars in Thousands) FY 2012 FY 2011 FY 2013 Current Enacted Request **NNSA CIO Activities** Cyber Security (Homeland Security) Infrastructure Program 0 0 111,022 Technology Application Development ^a 0 0 0 14,000 Enterprise Secure Computing (Homeland Security) 0 Federal Unclassified Information Technology 30,000 0 0 **Total, NNSA CIO Activities** 0 155,022

Out-Year Funding Profile by Subprogram and Activity

The outyear numbers for Weapons Activities do not reflect programmatic requirements. Rather, they are an extrapolation of the FY 2013 request based on rates of inflation in the Budget Control Act of 2011. The Administration will develop outyear funding levels based on actual programmatic requirements at a later date.

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⁵ In FY 2011 and FY 2012 Technology Application Development is reflected in the Cyber Security program. In FY 2013 funds supporting Technology Application Development were realigned to infrastructure for higher priority requirements. Technology Application initiatives are to be supported in the outyears.

National Security Applications

Funding Profile by Subprogram and Activity

(Dollars in Thousands)

19,794	0	0
0	10,000	18,248
Current	Enacted	Request
FY 2011	FY 2012	FY 2013

Total, National Security Applications
Total, Science, Technology and Engineering Capability

Out-Year Funding Profile by Subprogram and Activity

Defense Nuclear Nonproliferation

Overview Appropriation Summary by Program

(dollars in thousands)

	FY 2011	FY 2012	FY 2013
	Current	Enacted ^a	Request
Defense Nuclear Nonproliferation			
Nonproliferation and Verification Research and Development	355,407	354,150	548,186
SBIR/STTR [Non-Add]	[5,579]	[6,245]	[11,727]
Nonproliferation and International Security	147,494	153,594	150,119
International Nuclear Materials Protection and Cooperation b	578,633	569,927	311,000
Fissile Materials Disposition	802,198	685,386	921,305
Global Threat Reduction Initiative ^b	444,689	498,000	466,021
Legacy Contractor Pensions	0	55,823	62,000
Subtotal of Defense Nuclear Nonproliferation	2,328,421	2,316,880	2,458,631
Use of Prior Year Balances	-2,050	0	0
Rescission of Prior Year Balances	-45,000	-21,000	0
Total, Defense Nuclear Nonproliferation	2,281,371	2,295,880	2,458,631

Out-Year Appropriation Summary by Program

(dollars in thousands)

	(dollars in thousands)			
	FY 2014	FY 2015	FY 2016	FY 2017
	Request	Request	Request	Request
Defense Nuclear Nonproliferation				
Nonproliferation and Verification Research and				
Development	412,622	420,344	428,417	437,719
Nonproliferation and International Security International Nuclear Materials Protection and	156,363	167,070	173,718	177,490
Cooperation ^b	282,628	288,026	293,870	300,171
Fissile Materials Disposition	950,000	960,000	975,000	996,170
Global Threat Reduction Initiative ^b	485,775	494,866	504,371	515,322
Legacy Contractor Pensions	63,138	64,320	65,555	66,978
Total. Defense Nuclear Nonproliferation	2.350.526	2.394.626	2.440.931	2.493.850

⁶ FY 2012 Enacted reflects rescission of \$7.4 million associated with savings from the contractor pay freeze.

⁷ FY 2011 total includes international contributions for INMP&C of \$300,000 from South Korea, \$117,000 from the United Kingdom of Great Britain, \$512,076 from Norway, \$540,602 from New Zealand, and \$5,169,026 from Canada. International

contributions for GTRI include \$8,207,791 from Canada, and \$499,970 from the Netherlands.

Nonproliferation and Verification Research and Development

Funding Profile by Subprogram and Activity

(Dollars in Thousands) FY 2011 FY 2012 FY 2013 Current Enacted Request Nonproliferation and Verification Research and Development Proliferation Detection (PD) 229,427 222,150 240,536 Homeland Security-Related Proliferation Detection [Non-Add] [50,000] [50,000] [50,000] Nuclear Detonation Detection (NDD) 125,980 132,000 157,650 Domestic Uranium Enrichment RD&D 150,000 0 SBIR/STTR ^a [Non-Add] 0 [6,245] [11,727] Total, Nonproliferation and Verification R&D 355,407 354,150 548,186

Out-Year Funding Profile by Subprogram and Activity

(Dollars in Thousands) FY 2015 FY 2014 FY 2016 FY 2017 Request Request Request Request Nonproliferation and Verification Research and Development Proliferation Detection (PD) 248,312 252,955 257,790 263,369 Homeland Security-Related Proliferation Detection [Non-Add] [50,000] [50,000] [50,000] [50,000] Nuclear Detonation Detection (NDD) 164,310 167,389 170,627 174,350 Domestic Uranium Enrichment RD&D 0 0 0 SBIR/STTR [Non-Add] [8,446] [8,941] [9,598] [10,461] Total, Nonproliferation and Verification R&D 412,622 420,344 428,417 437,719

^a FY 2011 current appropriation reflects the \$5,579 thousand transferred out of the DNN appropriation for SBIR/STTR.

Nonproliferation and International Security Funding Profile by Subprogram and Activity⁹

(Dollars in Thousands) FY 2011 FY 2012 FY 2013 Current Enacted Request Nonproliferation and International Security Dismantlement and Transparency 49,207 0 0 Global Security Engagement and Cooperation 47,289 0 0 International Regimes and Agreements 39.824 0 Treaties and Agreements 11,174 0 0 Nuclear Safeguards and Security 0 54,897 54,723 **Nuclear Controls** 0 47,444 45,420 Nuclear Verification 39,969 40,566 0 Nonproliferation Policy 11,284 9,410 147,494 Total, Nonproliferaiton and International Security 153,594 150,119

Out-Year Funding Profile by Subprogram and Activity

(Dollars in Thousands) FY 2014 FY 2015 FY 2016 FY 2017 Request Request Request Request Nonproliferation and International Security 0 0 0 Dismantlement and Transparency 0 Global Security Engagement and Cooperation 0 0 0 0 International Regimes and Agreements 0 0 0 0 0 Treaties and Agreements 0 0 0 Nuclear Safeguards and Security 56,999 60,902 63,326 64,701 **Nuclear Controls** 47,309 50,549 52,560 53,701 **Nuclear Verification** 42,253 45,147 46,943 47,962 Nonproliferation Policy 9,802 10,472 10,889 11,126 Total, Nonproliferaiton and International Security 156,363 167,070 173,718 177,490

⁹ The Nonproliferation and International Security Program implemented a budget structure change starting in FY 2012. The structure change created a more efficient and clearer program organization with activities aligned along functional lines that reflect U.S. nonproliferation priorities and initiatives. The new structure depicts more clearly the alignment of people,

technology, and resources to meet and implement nuclear nonproliferation objectives.

International Nuclear Materials Protection and Cooperation Funding Profile by Subprogram and Activity

(Dollars in Thousands) FY 2011 FY 2012 FY 2013 Current Enacted Request International Nuclear Materials Protection and Cooperation Navy Complex 34,332 33,664 39,860 Strategic Rocket Forces/12th Main Directorate 51,359 59,105 8,300 Weapons Material Protection ^a 93,318 80,735 46,975 Civilian Nuclear Sites 53,027 59,117 60,092 Material Consolidation and Conversion 13,867 14,306 17,000 National Infrastructure and Sustainability Program b 60,928 46,199 60,928 Second Line of Defense 262,072 92,574 265,163 International Contributions c 6,639 0 **Total, International Nuclear Materials Protection and** Cooperation 578,633 569,927 311,000

Out-Year Funding Profile by Subprogram and Activity

(Dollars in Thousands) FY 2014 FY 2015 FY 2016 FY 2017 Request Request Request Request **International Nuclear Materials Protection and Cooperation** Navy Complex 39,742 39,767 39,843 39,823 Strategic Rocket Forces/12th Main Directorate 14,300 14,300 14,300 14,300 Weapons Material Protection ^a 54,857 54,882 54,958 54,938 Civilian Nuclear Sites 59,972 59,997 60,074 60,053 Material Consolidation and Conversion 20,000 20,000 20,000 20,000 National Infrastructure and Sustainability Program b 46,081 46,106 46,182 46,162 Second Line of Defense 47,676 52,974 58,513 64,895 **Total, International Nuclear Materials Protection and** Cooperation 282,628 300,171 288,026 293,870

^a Weapons Material Protection was formerly known as Rosatom Weapons Complex.

^b National Infrastructure and Sustainability was formerly known as National Programs and Sustainability.

^c FY 2011 total includes international contributions of \$300,000 from South Korea, \$117,000 from the United Kingdom of Great Britain, \$512,076 from Norway, \$540,602 from New Zealand, and \$5,169,026 from Canada.

Fissile Materials Disposition Funding Profile by Subprogram and Activity

	(Dollars in Thousands)		
	FY 2011 FY 2012 FY 2		FY 2013
	Current	Enacted	Request
Fissile Materials Disposition			
U.S. Surplus Fissile Materials Disposition			
Operations and Maintenance (O&M)			
U.S. Plutonium Disposition	200,400	205,632	498,979
U.S. Uranium Disposition	25,985	26,000	29,736
Subtotal, O&M	226,385	231,632	528,715
Construction	575,788	452,754	388,802
Total, U.S. Surplus Fissile Materials Disposition	802,173	684,386	917,517
Russian Surplus Fissile Materials Disposition			
Russian Materials Disposition	25	1,000	3,788
Total, Fissile Materials Disposition	802,198	685,386	921,305

Out-Year Funding Profile by Subprogram and Activity

	(Dollars in Thousands)			
	FY 2014 FY 2015		FY 2016	FY 2017
	Request	Request	Request	Request
Fissile Materials Disposition				
U.S. Surplus Fissile Materials Disposition				
Operations and Maintenance (O&M)				
U.S. Plutonium Disposition	793,506	908,906	930,967	957,881
U.S. Uranium Disposition	30,058	33,546	33,453	30,514
Subtotal, O&M	823,564	942,452	964,420	988,395
Construction	118,661	9,773	2,805	0
Total, U.S. Surplus Fissile Materials Disposition	942,225	952,225	967,225	988,395
Russian Surplus Fissile Materials Disposition				
Russian Materials Disposition	7,775	7,775	7,775	7,775
Total, Fissile Materials Disposition	950,000	960,000	975,000	996,170

Global Threat Reduction Initiative (GTRI) Funding Profile by Subprogram and Activity

	(Dollars in Thousands)		
	FY 2011	FY 2012	FY 2013
	Current	Enacted	Request
Global Threat Reduction Initiative			
Highly Enriched Uranium (HEU) Reactor Conversion	100,968	148,269	161,000
Nuclear and Radiological Material Removal			
Russian-Origin Nuclear Material Removal	159,031	147,000	102,000
U.SOrigin Nuclear Material Removal	4,420	9,000	5,000
Gap Nuclear Material Removal	9,289	45,731	61,000
Emerging Threats Nuclear Material Removal	8,768	5,000	5,000
International Radiological Material Removal	20,660	20,000	8,000
Domestic Radiological Material Removal			
(Homeland Security) ^a	19,128	20,000	19,000
Subtotal, Nuclear and Radiological Material Removal	221,296	246,731	200,000
Nuclear and Radiological Material Protection			
BN-350 Nuclear Material Protection	1,840	2,000	0
International Material Protection	46,573	50,000	50,000
Domestic Material Protection (Homeland Security) ^a	65,304	51,000	55,021
Subtotal, Nuclear and Radiological Material Protection	113,717	103,000	105,021
International Contributions ^b	8,708	0	0
Total, Global Threat Reduction Initiative	444,689	498,000	466,021

 $^{^{\}rm 11}$ Office of Management and Budget (OMB) Homeland Security designation.

^b International contributions for GTRI include \$8,207,791 from Canada, and \$499,970 from the Netherlands.

Out-Year Funding Profile by Subprogram and Activity

	(Dollars in Thousands)			
	FY 2014	FY 2015	FY 2016	FY 2017
	Request	Request	Request	Request
Global Threat Reduction Initiative				
Highly Enriched Uranium (HEU) Reactor Conversion	177,000	183,000	185,000	195,000
Nuclear and Radiological Material Removal				
Russian-Origin Nuclear Material Removal	100,000	100,000	100,000	95,000
U.SOrigin Nuclear Material Removal	5,000	5,000	6,000	8,000
Gap Nuclear Material Removal	45,000	30,000	20,000	15,000
Emerging Threats Nuclear Material Removal	5,000	5,000	5,000	5,000
International Radiological Material Removal	20,000	20,000	20,000	20,000
Domestic Radiological Material Removal (Homeland				
Security) ^a	20,000	20,000	20,000	20,000
Subtotal, Nuclear and Radiological Material Removal	195,000	180,000	171,000	163,000
Nuclear and Radiological Material Protection				
BN-350 Nuclear Material Protection	0	0	0	0
International Material Protection	52,000	60,000	68,000	73,000
Domestic Material Protection (Homeland Security) ^a	61,775	71,866	80,371	84,322
Subtotal, Nuclear and Radiological Material Protection	113,775	131,866	148,371	157,322
Total, Global Threat Reduction Initiative	485,775	494,866	504,371	515,322

Naval Reactors Overview Appropriation Summary by Program

(dollars in thousands)

	FY 2011	FY 2012	FY 2013
	Current	Enacted ^a	Request ^b
Naval Reactors			
Naval Reactors Operations and Maintenance (O&M)	914,071	0	0
Naval Reactors Operations and Infrastructure	0	358,300	366,961
Naval Reactors Development	0	421,000	418,072
S8G Protype Refueling	0	99,500	121,100
OHIO Replacement Reactor Systems Development	0	121,300	89,700
Total, Naval Reactors O&M	914,071	1,000,100	995,833
Program Direction	39,920	40,000	43,212
Construction	32,535	39,900	49,590
Subtotal, Naval Reactors	986,526	1,080,000	1,088,635
Rescission of Prior Year Balances	-1,000	0	0
Total, Naval Reactors	985,526	1,080,000	1,088,635

Out-Year Appropriation Summary by Program

(dollars in thousands)

	FY 2014	FY 2015	FY 2016	FY 2017
	Projection ^b	Projection ^b	Projection	Projection
Naval Reactors				
Naval Reactors Operations and Infrastructure	384,365	377,814	383,719	396,283
Naval Reactors Development	434,306	426,245	432,449	446,609
S8G Prototype Refueling ^c	123,327	125,522	127,760	130,054
OHIO Replacement Reactor Systems Development ^c	91,350	92,975	94,634	96,333
Program Direction	49,670	52,400	54,159	56,096
Construction	25,373	54,230	58,300	50,600
Total, Naval Reactors	1,108,391	1,129,186	1,151,021	1,175,975

^a The Conference Report of H.R. 2055 Military Construction and Veterans Affairs, and Related Agencies Appropriations Act, 2012 establishing new funding controls for Naval Reactors: Naval Reactors Operations and Infrastructure, Naval Reactors Development, S8G Prototype Refueling, and OHIO Replacement Reactor Systems Development.

^b FY 2013, FY 2014 and FY 2015 includes an allocation to Naval Reactors from the Department of Defense's (DoD) Research, Development, Testing and Evaluation (RDT&E) account entitled "NNSA PROGRAM SUPPORT". The amounts included for Naval Reactors from this DoD account are FY 2013 \$5.8 million; FY 2014, \$2.0 million; and FY 2015, \$0.9 million.

^c Due to the Budget Control Act of 2011 the outyear funding for S8G Prototype Refueling and OHIO Replacement Reactor Systems Development is under review and will be updated at a later date.