

Statement of Neile Miller
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U.S. Department of Energy
on
Budget Priorities for NNSA Weapons Activities
before the
Subcommittee on Energy & Water Development
House Committee on Appropriations
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INTRODUCTION

Chairman Frelinghuysen, Ranking Member Kaptur, and distinguished members of the Subcommittee, thank you for having me here to discuss the NNSA programs funded in the Weapons Activities account. Your ongoing support for the men and women of NNSA and the work they do, and your 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.

The NNSA Weapons Activities (WA) account and associated programs, projects, and activities are a priority for the Administration, but we face considerable budget uncertainty. We are currently operating under a Continuing Resolution (CR) that expires March 27, although an anomaly in the CR has provided Weapons Activities with funding at the level requested in the FY 2013 President's Budget. Other potential fiscal constraints, including a possible reduced overall funding level for the balance of the fiscal year, as well as other budget discussions, have presented the NNSA with opportunities to further drive efficiencies into our budgets. However, this fiscal uncertainty, as well as the uncertainty resulting from a potential sequestration, present great challenges to managing our large and critical nuclear infrastructure and to our workforce across the country at our eight sites in seven states.

I want to assure you that NNSA is being thoughtful, pragmatic, and efficient in how we achieve the Nation's nuclear security objectives and shape the future of nuclear security.

SEQUESTRATION IMPACTS

Should sequestration take effect on March 1, 2013, the DOE and NNSA could be severely impacted, along with other Federal agencies. The DOE/NNSA plays a critical national security role in the following areas: ensuring a safe, secure and effective nuclear weapons stockpile, leading critical nuclear nonproliferation and nuclear security programs around the globe, providing for Navy's nuclear propulsion capabilities, and developing and deploying nuclear counterterrorism and emergency response capabilities. As Secretary Chu has previously stated,

sequestration could affect thousands of jobs and reduce the Department's ability to serve the American people. These cuts could come five months into the current fiscal year, forcing the Department to absorb the spending reduction in a seven-month period rather than an entire year.

Under the current law, the NNSA FY 2013 budgetary resources could be cut by roughly 7.7%, which equates to an effective reduction of over 13% when measured over the remaining seven months of the fiscal year.

More specifically, under sequestration the level for the WA appropriation could be nearly \$600M below the FY 2013 President's Budget, and more than \$200M below the FY 2012 enacted level. At the program level, the largest impacts could be on **Directed Stockpile Work (DSW) program** and supporting scientific and facility operational activities, and on the **Defense Nuclear Security (DNS) program**. Specifically, for DSW, the reduced funding level would result in impacts to the Life Extension Programs (LEPs) delaying deliveries to the Air Force and the Navy. Other weapon system programs could be broadly impacted due to reduced surveillance and assessments, delayed surety improvements, and increased deferred maintenance. Scientific research to build and maintain tools for stockpile certification without returning to underground nuclear testing and facility operations required to execute LEPs could also be significantly delayed. We could need to protect the Navy W76-1 deliverables, but could need to slow the B61-12 LEP, W88 Alt 370, W78/88-1 Study efforts, and not meet some B83 requirements.

Sequestration could also have significant impact on the DNS organization because it could cause reductions in resource allocation across all functional areas in the security program.

Regarding the **NNSA workforce at our labs and plants**, more than 5,000 contractor jobs could be impacted through either work hour reductions or other personnel actions. Agreements with our customers, assumptions and plans, and deliverables for the nuclear weapons stockpile would be delayed, some of these across the board cuts could affect all facets of NNSA: the safety and security of the stockpile, the facilities that maintain that stockpile, and the people and processes that provide the nuclear forces that provide us all with security. That is why we refer to it as the Nuclear Security Enterprise (NSE). For example, the production support workforce at the Pantex plant supporting Directed Stockpile work could be reduced by 20% through layoffs or work hour reductions, resulting in our inability to adequately support stockpile workload.

NNSA-WEAPONS ACTIVITIES PROGRAM STATUS UPDATES

Defense Programs

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.

Under the current FY 2013 CR anomaly, the NNSA is operating at six-months worth of funding for the \$7.6 billion appropriation for the Weapons Activities account. The Defense Programs portion of the Weapons Activities account is around \$6.24 billion.

Stockpile Management

We continue to maintain and support certification of the stockpile as safe, secure and effective without underground nuclear testing. Regarding nuclear modernization activities, we continue to execute our Life Extension Programs: The B61-12 LEP is in Phase 6.3 development engineering; production on the W76-1 LEP continues to meet required deliveries to the Navy; the W88ATL is in phase 6.3 development engineering; and we are moving out on a phase 6.2 study for the W78/88-1 LEP as an interoperable warhead for the submarine and intercontinental ballistic systems.

We remain committed to completing key dismantlements, with \$51.3 million in FY 2013 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 FY 2009 by FY 2022 and we continue to be on a path to meet that commitment.

Stockpile Science

The Science Campaign's 2013 Budget request of \$350.1 million supports expanding and refining our experimental capabilities that are relevant to Directed Stockpile Work and that advance the predictive capabilities used in the Annual Assessment. The Science Campaign is the stockpile stewardship program's insurance policy against the need to return to underground testing. This program primarily develops the scientific data and tools which defense programs need to continue to assess the safety, security and effectiveness of the current stockpile and explore advanced certification pathways for future stockpile actions including Life Extension Programs. Science Campaign activities rely on existing experimental facilities that reside at the DOE labs, including; DARHT, LANSCE, U1a, and National Ignition Facility (NIF). Science campaigns are also primary sponsors of capabilities that reside at the Nevada National Security Site for the conduct of subcritical experiments. We have accomplished a major subcritical experiment this year by completing the "Gemini Series" which, along with advances in diagnostics, also demonstrated a key capability which will contribute to future stockpile assessments. By 2015 Science Campaign will complete a Level 1 Milestone that addresses concerns associated with pit reuse: providing a technical basis for determining which existing pits can be re-accepted for use in future systems. In the future Science Campaigns will be improving diagnostic capabilities in these experiments to reduce remaining uncertainties in our assessments. The Science Campaign also provides technical capabilities supporting Intelligence Community assessments of foreign nuclear weapon activities. A classified letter recently sent from the Director of National Intelligence to the Secretary of Energy, describes the need for and value of these efforts.

In FY 2013, \$460 million was requested for our Inertial Confinement Fusion and High Yield Campaign to operate NNSA's suite of world-leading high energy density facilities -- the National Ignition Facility (NIF), Omega, and Z -- to support stockpile stewardship in a safe and secure manner. The NIF has transitioned to routine operations, with support of stockpile science and near-term stockpile needs balanced with progress on the path toward ignition. We continue to advance the diagnostic and experimental capabilities at all our ICF facilities, increasing the value of the experimental data and the impact our investments have on improving design codes and the stockpile.

The ICF Program submitted to Congress in December, 2012 a report on the path forward to achieving ignition and has achieved record densities and pressures, approximately one-half of that needed for ignition and neutron yields a factor of three to ten less than needed for a propagating burn. This has been coupled with significant progress in understanding the issues that are limiting the demonstration of ignition at the NIF, including energy coupling to the capsule, symmetry, and mix.

The Advanced Simulation and Computing campaign's 2013 Budget request of \$600 million is supporting the continued improvement of full system calculations and metric suites that are essential to annual assessments and also to future stockpile changes. Simulation on some of the largest supercomputers in the world enable national laboratory staff to address: (1) issues that affect the health of our deterrent, including aging and component lifetimes; and (2) topics critical for LEPs and stockpile modernization, including reuse and enhanced multipoint safety.

The science-basis of the codes is facilitating the movement from under-ground test calibration to models validated by above-ground experiments. This is matched with the challenge to maintain adequate critical skills and capabilities to support current and future stockpile requirements. Annual assessment, peer review, Significant Finding Investigations, and assessment of foreign/proliferant devices are reliant upon more responsive modeling and simulation capabilities. Platform investments are providing capability for routine use of high resolution 3-D simulations to address stockpile questions. Continued system investment provides the ability to accurately assess foreign or improvised nuclear devices and address other national security questions in a secure and timely fashion.

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 utilizing 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.

Infrastructure

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. The 2013 Budget included \$2.24 billion to maintain our infrastructure and execute our construction projects.

In consultation with the Department of Defense (DoD), the NNSA deferred construction of the Chemistry and Metallurgy Research Replacement Nuclear Facility (CMRR-NF) for at least five years in FY 2013. While this decision allows the NNSA to focus on execution of the Uranium Processing Facility (UPF) project and other significant priorities, it requires investments in existing infrastructure to maintain critical plutonium support capabilities. Over the past year, NNSA developed an interim plutonium strategy in coordination with the DoD and our National Labs; your approval of our reprogramming request (\$120M) will allow us to fund the interim strategy's near-term investments and maintain continuity in our plutonium capabilities across sustainment, production and qualification activities. It is important to understand we remain committed to supporting the nation's only plutonium capability, and while we have facilities in place today that support the plutonium needs critical in our LEP activities—including pit production and qualification—we must look to the future for an enduring strategy and planning is underway. We appreciate the support of this Committee in understanding that NNSA must balance its priorities within the current budget environment, with executing an interim strategy and adjusting plans for our enduring strategy to maintain capability.

Uranium Processing Facility (UPF) status

We continue to make good progress on the UPF project and remain fully committed to ensuring the design is sufficiently mature and that technical uncertainties are resolved before we establish the project's baseline. Furthermore, we continue to take appropriate and conservative steps to confirm that safety systems and components are selected in the design process. We have instituted a series of structured reviews to critically assess our progress, one of which identified several areas in which process systems required more floor space. And, although more design effort was required to modify the facility's structure, it is imperative we get it right. Today we are slightly more than sixty-five percent design complete and remain on track to finalize the design work in mid-FY14. The project engineers have completed the design work for the Bear Creek Road relocation, an important first step in preparing the site for construction for the nuclear facility. We are working with the US Army Corps of Engineers on this project to award a firm fixed price contract in the third quarter of FY13. As a part of our acquisition strategy we are employing other Agencies' construction expertise when they can provide a good value to us.

High Explosive Pressing Facility project status

The High Explosive Pressing Facility project at the Pantex Plant in Texas, which will provide a new high explosive main charge pressing facility with the capability to meet stockpile modernization needs, continues to make excellent progress. This project represents a move towards utilizing fixed priced construction contracts as part of our acquisition strategy. At approximately 40% construction complete, we are on track to deliver this work under budget and ahead of schedule. Again, we are employing the US Army Corps of Engineers in oversight of this project.

Kansas City Responsive Infrastructure Manufacturing and Sourcing (KCRIMS) status

Transformation of the Kansas City Plant moves ahead under the Kansas City Responsive Infrastructure Manufacturing and Sourcing (KCRIMS) project. Construction of Buildings 1, 2, 3 and 5 of the KCRIMS Project was completed on schedule. There are currently eleven move phases underway. The relocation project is on schedule and within budget. KCRIMS relocation is planned to be complete by August 2014.

Defense Nuclear Security (DNS)

Following a comprehensive review of its organization and lines of authority, the NNSA established a new Office of Infrastructure and Operations as the center of gravity for operational authority over all NNSA activities, to include security. With the new office assuming operational control over security implementation across the nuclear security enterprise, the Defense Nuclear Security (DNS) mission was realigned to focus on policy development, strategic planning, and performance assessments of field-led activities. We also realigned security resource execution to the Office of Infrastructure and Operations in alignment with its operational authority. NNSA is committed to change our culture of how we assess security so that we are less reliant on reports written by others and more focused on our own real time assessments with a “boots-on-the-ground” approach.

As you know, in the early morning hours of July 28, 2012, three individuals trespassed onto the Y-12 National Security Complex and defaced a building where the United States stores highly enriched uranium. While their actions were wholly unacceptable, the intruders who cut through fences never gained access into the facility or came close to any material. Our guard force was slow to respond, but the individuals were interdicted and arrested. In the aftermath of that event, we have learned a lot about our organization, the assumptions we had made, and how we communicate.

The incident at Y-12 was a completely unacceptable breach of security and an important wake up call for our entire complex. The security of our nation’s nuclear material is our most important responsibility, and we have no tolerance for personnel who cannot or will not do their jobs. In response to the incident, we have taken strong and decisive action to fix the issues that led to the incident at Y-12.

We took steps that led to the removal of the contractor responsible for the guard force at the facility, we have removed the top leadership at the site, and the officers associated with the incident were fired, demoted or suspended without pay. Additionally, federal officials at the site and at headquarters with security oversight responsibilities no longer hold these senior level positions and no longer have anything to do with nuclear security. We also have been working to make the structural and cultural changes required to improve the security throughout our entire complex.

DNS is in the process of recruiting subject matter experts to join the federal service to execute a performance-based assessment process that will be objective and independent of the new operational management structure. This will be part of a three-tiered assessment process to identify shortcomings and ensure they are accurately reported. The first tier will be contractor self-assessment. We expect the contractor to self-identify all problem areas. The second tier is the DNS assessment of the contractor and Federal site personnel performance. DNS is committed to change the culture of how it assesses security, so that it is less reliant on oversight reports written by others and more focused with a “boots-on-the-ground” approach. The third and final tier is independent oversight provided by the Office of Health, Safety, and Security. And, of course, apart from this three-tiered assessment and inspection regimen, we expect Federal site personnel to perform quality assurance activities on a routine basis.

The Secretary and the Acting Administrator are committed to hire the right caliber of security professionals; those with operational nuclear security field experience, to reshape and continue to improve the culture of nuclear security at NNSA. This initiative is focusing our leadership on instilling a culture that embraces security as an essential element of the NNSA mission, which is to provide the utmost protection for national security resources.

Another example of what is being done to improve security across the Nuclear Security Enterprise is the Protective Force Training Program Reform Initiative. This training initiative is designed to establish core security proficiencies that are required at all Field Sites and is modeled after the program used by the United States military.

Cyber Security

The NNSA maintains a strong cyber security program focusing on the classified computing environment. The highly complex and global nature of the NNSA mission environment makes it critically important that information and information assets are managed and protected using a risk management approach. The NNSA mission is further complicated by the geographically diverse nature of the NNSA enterprise. A flexible, comprehensive Risk Management Program promoting risk-informed decision making, and providing approaches and methodologies to conduct risk management activities, will greatly benefit the enterprise, ensuring that information security considerations are integrated into the enterprise architecture and business processes of the organization.

In coordination with the Department’s Chief Information Officer, the NNSA focus is to transform our computing environment in support of the “OneNNSA” vision. The Department will accomplish this by delivering two pillars of our strategy: the NNSA Network Vision (2NV)

and the Joint Cybersecurity Coordination Center (JC3). The 2NV enhances and modernizes the current computing environment by providing a secure, mobile, agile and adaptive IT infrastructure which will allow our workforce to perform their duties from any device, anywhere, at any time. JC3 allows the Department to understand the “health” of that computing environment from a cyber security and network operations perspective.

During FY13 the Department will implement a secure infrastructure environment to begin the implementation of NNSA mission applications and unclassified computing requirements to support the agency goals of “OneNNSA.”

Nuclear Counterterrorism and Incident Response (NCTIR)

The NNSA maintains one-of-a-kind emergency response capabilities, which allow us to respond to nuclear or radiological incidents anywhere in the world. We are successfully implementing capability improvements for our First Responders and Consequence Management Home Team. Additionally, we are concluding a major exercise with our P3 international partners. Progress continues in assisting the FBI in fielding, training and equipping teams to stabilize a terrorist nuclear device. If a sequestration is imposed, the implementation of Stabilization will stop. We will no longer continue to modernize our emergency communications capabilities and will stop work on improvements to P-Tunnel at the N2S2.

Nuclear Counterterrorism and National Security Applications

In response to the President’s concern for the threat of nuclear terrorism and related prevention goals within both the 2010 Nuclear Posture Review and the 2011 National Counterterrorism Strategy, we 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, provides unique technical contributions based on NNSA’s core nuclear science and technology expertise, and works to develop and strengthen nuclear counterterrorism capabilities, policy, and practice domestically and internationally. In addition, the Office of Counterterrorism and Counterproliferation is designed to coordinate all nuclear counterterrorism, counterproliferation, and post-detonation nuclear forensics related efforts without drastic restructuring. In FY 2013, some key accomplishments include:

- Met multiple milestones in providing systematic analysis of potential nuclear device threats, supporting U.S. military, homeland security, and intelligence requirements. This includes the Tier Threat Modeling Archive-Validation effort that will strengthen our confidence in various “render safe” scenarios, improving national-level planning and emergency response operations.
- Worked with close allies to implement 2012 Nuclear Security Summit initiatives, particularly with respect to characterizing high risk nuclear materials and dealing with potential nuclear threat devices. Held a bilateral nuclear material transportation security table-top exercise with Japan.

- Conducted the 100th Weapons of Mass Destruction (WMD) Counterterrorism tabletop exercise in the United States, bringing together Federal, State, local and private sector officials and first responders to strengthen U.S. capabilities to prevent and respond to terrorist incidents involving WMD materials. Included international observers at several exercises.

Office of the Administrator

And finally, we will need your support for the NNSA's Office of the Administrator (OA) account. This funds all of federal personnel who plan, manage, and oversee the operation of NNSA Defense Programs, Nuclear Nonproliferation, Defense Nuclear Security, nuclear safety, Counterterrorism, nuclear incident response, cyber security and mission support which strengthen U.S. security. The OA account cannot be an afterthought; it is an essential enabler of the federal roles and missions that are the heart of our Enterprise.

The combination of the level of congressional funding for this account for the past two years, coupled with the indiscriminate cuts of sequestration, will strain this account. Despite our aggressive measures to manage to the new bottom line, including cutting travel and support services by about 1/3 and offering buy outs to help shape the force, we face the threat of furloughing about 1,750 Federal employees. In addition to the aforementioned contractor impacts, this will pose a challenge for all of the NNSA programs whose staff are funded in the OA account.

IMPROVING NNSA MANAGEMENT

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.

Most significantly, on January 8, 2013, the NNSA awarded a contract worth \$23 billion over 10 years to Combined Nuclear Security (CNS) for the combined management of the Y-12 National Security Complex in Tennessee and the Pantex Plant in Texas, with an option for phase-in of Tritium Operations performed at the Savannah River Site in South Carolina. Although the award is currently under **an automatic stay while being protested** at the GAO, the new business model will shape the future of the United States' Nuclear Security Enterprise and will save significant taxpayer dollars over the next decade. Furthermore, combining contracts and site offices will allow us to improve performance, reduce the cost of work, and operate as an integrated enterprise.

We will continue to seek strategies to engender meaningful improvement in performance and reduction of costs for taxpayers at every nuclear security enterprise site in future competitions as well as existing contracts.

In addition, the recently established Office of Acquisition and Project Management (NA-APM) continues to integrate our acquisition and project management staffs resulting in \$20 Million in reimbursements from contractors last year as we utilize our contracts to hold them accountable for unsatisfactory performance. We issued an unambiguous design policy for our complex nuclear projects ensuring that sufficient design work is completed prior to approving project baselines at Critical Decision 2. We have completed 12 projects that were baselined in 2006 or later, eleven of the twelve were completed on or under their approved baelines, and the entire portfolio was completed 10 %, or \$32 million, under budget. We are confident that the lessons learned in delivering this work are applicable and scalable to the major systems projects we have had problems with in the past.

Finally, one of the major actions NNSA took last year was standing up a consolidated office to oversee and direct the operations and infrastructure. The new office will facilitate NNSA's management of the Nuclear Security Enterprise across all eight sides, and will make management more efficient and effective.

CONCLUSION

Our mission is vital, and your past support has been key in helping us accomplish it. The NNSA budget and our programs reflect 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.

