[H.A.S.C. No. 110–132]

HEARING

ON

NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2009

AND

OVERSIGHT OF PREVIOUSLY AUTHORIZED PROGRAMS

BEFORE THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES
ONE HUNDRED TENTH CONGRESS

SECOND SESSION

STRATEGIC FORCES SUBCOMMITTEE HEARING

ON

BUDGET REQUEST FOR THE DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS

HEARING HELD
MARCH 12, 2008

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CONTENTS

CHRONOLOGICAL LIST OF HEARINGS

2008

WEDNESDAY, MARCH 12, 2008

FISCAL YEAR 2009 NATIONAL DEFENSE AUTHORIZATION ACT—BUDGET REQUEST FOR THE DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS

STATEMENTS PRESENTED BY MEMBERS OF CONGRESS

WITNESSES

APPENDIX

FISCAL YEAR 2009 NATIONAL DEFENSE AUTHORIZATION ACT—BUDGET REQUEST FOR THE DEPARTMENT OF ENERGY NATIONAL SECURITY PROGRAMS

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
STRATEGIC FORCES SUBCOMMITTEE,
Washington, DC, Wednesday, March 12, 2008.

The subcommittee met, pursuant to call, at 10:00 a.m., in room 2212, Rayburn House Office Building, Hon. Ellen Tauscher (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. ELLEN O. TAUSCHER, A REPRESENTATIVE FROM CALIFORNIA, CHAIRMAN, STRATEGIC FORCES SUBCOMMITTEE

Ms. TAUSCHER. Good morning. This hearing of the Strategic Forces Subcommittee will come to order. Today, we will consider the Department of Energy's (DOE) Fiscal Year (FY) 2009 budget request for Atomic Energy Defense Activities.

Let me begin by welcoming our distinguished witnesses: General Robert L. Smolen, Deputy Administrator for Defense Programs, National Nuclear Security Administration (NNSA); the Honorable Will Tobey, Deputy Administrator for Defense Nuclear Nonproliferation, National Nuclear Security Administration; the Honorable James Rispoli, Assistant Secretary for Environmental Management, Department of Energy; and Mr. Glenn Podonsky, Chief Health, Safety and Security Officer, the Department of Energy.

Gentlemen, thank you very, very much for being here.

I want to thank our witnesses for appearing before the subcommittee.

General Smolen, I believe this is your first appearance before the committee, and we welcome you.

General SMOLEN. Thank you, ma'am.

Ms. TAUSCHER. The fiscal year 2009 budget request for the Department of Energy is just over $25 billion. The Armed Services Committee annually authorizes about two-thirds of this total for Atomic Energy Defense Activities.

For fiscal year 2009, the request of $15.9 billion for these programs is $770 million more than was appropriated in fiscal year 2008.

This committee and I are strong supporters of the critical missions embodied in your respective program areas: maintaining and ensuring the reliability, safety, and security of our nuclear deterrent; conducting the scientific research and production activities necessary to support that deterrent; keeping our nuclear weapons and weapons complex safe from physical and other threats; leading

the government's international nuclear nonproliferation efforts; and cleaning up the environmental legacy of decades of nuclear stockpile work.

We are eager to hear your testimony on the fiscal year 2009 budget request. I am especially interested in your thoughts about five issues.

First, does the budget include the right investments in the Stockpile Stewardship Program (SSP)?

While the Reliable Replacement Warhead (RRW) proposal was slowed in fiscal year 2008, we must continue efforts to strengthen the stewardship program. That means both the scientific tools that are coming on line, such as the second axis at DARHT (the Dual-Axis Radiographic Hydrodynamic Test facility), the National Ignition Facility (NIF), and the world-class scientists and engineers that deploy those tools to execute the stewardship mission. And we expect a steadfast and sustained commitment to fulfill the requirements to initiate the Ignition Campaign in 2010 and provide full funding to do so.

In that context, what is the current path forward for the RRW proposal, and when will you deliver to Congress the long-promised white paper on nuclear weapons policy? How do these plans affect Complex Transformation?

Second—and I asked this a year ago—does the budget properly balance various safety and security priorities? Can the NNSA bring the complex into compliance with the 2005 Design Basis Threat (DBT) standards while addressing rapidly escalating cyber security threats?

Third, does the budget support the various commitments the Federal Government has made within the cleanup program?

Fourth, does the budget adequately support consolidation of special nuclear materials (SNM)? How do consolidation plans affect the broad areas of stockpile stewardship, complex modernization, nonproliferation, safety and security, and environmental cleanup?

Finally, I would like to know why the Defense Nuclear Nonproliferation budget is cut below the fiscal year 2008 funded level in a number of areas, including verification research and development (R&D), and nonproliferation and international security. These programs are some of the best national security investments this Nation makes, and anything less than robust funding is difficult to understand.

These are the kinds of concerns we hope you will address in your statements and during our discussions that will follow the testimony.

With that, let me turn to my good friend, our Ranking Member, the distinguished gentleman from Alabama, Mr. Everett, for any comments he may have.

And before I turn to you, Mr. Everett, I think we have just come in, and it looks like we may have a series of votes right in the morning after the 10 a.m. ceremony. So, we will watch that as closely as we have. But after we do Mr. Everett's remarks, we will begin the testimony from our witnesses.

I apologize if we have to run back and forth for votes. We will make you as comfortable as possible. But this is an enormously im-

portant hearing, and we would like to be able to continue, considering the fact that we do have votes to do in the middle.

Mr. Everett.

STATEMENT OF HON. TERRY EVERETT, A REPRESENTATIVE FROM ALABAMA, RANKING MEMBER, STRATEGIC FORCES SUBCOMMITTEE

Mr. EVERETT. Thank you very much, Chairman Tauscher. This is an important hearing, and thank you for calling this hearing and getting us to this point.

I am honored to welcome our guests here today. Congratulations, General Smolen, on your new position. I am always glad to see an Auburn graduate up here. Although, I tend toward University of Alabama, as Bart Starr introduced me when I first ran for Congress. But I want Auburn to win every single game but one.

Mr. Rispoli, Mr. Tobey, Mr. Podonsky, it is a pleasure for you to be with us.

And the subcommittee is committed to assuring the United States maintains a strong strategic deterrent for our national security, and for the security of our allies and friends. I believe our nuclear capabilities will continue to play a principal role in this.

Last summer, we saw what happens when our nuclear focus is diminished. The B–52 Bent Spear incident highlighted the need to reinforce the primacy of the nuclear mission and provided an opportunity to review both Department of Defense (DOD) and DOE nuclear weapons handling and security procedures. I commend the chairman for her leadership in this issue and for seeking ways to improve the inventory control of our nuclear weapons.

I would like to highlight a few areas that I am interested in hearing about today.

First, the commander of Strategic Command (STRATCOM) recently testified that we are accepting significant future risk with our legacy Cold War stockpile. These risks include reliability, safety, security, and maintenance that were respectable back then, but not what a modern military commander would like to have for the future. What is your assessment, and how are you meeting his needs?

NNSA has done a remarkable job maintaining our nuclear weapons with the Stockpile Stewardship Program. With these science and engineering tools, you have provided confidence that our stockpile, today, works without testing. A very key challenge I see ahead is how we manage the risk.

I use an analogy that we can relate to: No matter how good my automobile mechanic and his tools are, my 1960 Chevy is still a 1960 Chevy. The repair and maintenance costs start to add up; at some point, there is a risk that my next car problem may be catastrophic, and at some point, I look at the cost-benefit of repairing my old car or buying a new car. As we look at our Reliable Replacement Warhead in inevitable tradeoffs with Life Extension Programs (LEPs), we face the same sort of issue.

When might we see a problem in the current stockpile that could impact our nuclear deterrent? What level of risk is acceptable to our military commanders and our lab directors? What is the cost-benefit of the RRW approach versus other approaches?

Mr. Smolen, this year's budget request for RRW is a mere $10 million. I cannot imagine that it is significant to compete with a Phase 2a cost and study design, which is important to inform the Strategic Commission, Complex Transformation, and future decisions about the Nation's stockpile size and confidence.

Second, NNSA's Complex Transformation initiative to achieve a smaller, safer, less expensive complex makes a lot of sense. However, this is a large undertaking within a relatively flat budget.

I am interested in hearing about your implementation plans, and about any cost analysis you can share.

Mr. Rispoli, the Department has presented its plans for disposing of surplus plutonium and uranium. This plan proposes a three-prong approach. Yet, I understand the Department is considering a two-prong approach using H-Canyon and MOX (the Mixed Oxide Fuel Fabrication Facility). Can you tell us where you are with this decision?

I would like to hear about the Department's project management efforts. The important Waste Treatment Plant (WTP) has been hampered by cost growth and schedule delay. What measures are being taken to ensure that DOE projects don't experience a similar fate?

Mr. Podonsky, physical security of our nuclear weapons and material is essential. However, I am concerned that we have not focused enough energy on cyber security. DOE and NNSA have a tremendous technical workforce and infrastructure to support cyber efforts. Your observations are valued as we examine the National Cyber Initiative.

Mr. Tobey, I have been impressed with the breadth of the activities of the U.S., working with international partners, in what has been undertaken to combat nuclear proliferation. I would, however, like to better understand how you measure the progress of these programs.

Last, DOE and NNSA have had a key role in shaping the Nation's future deterrence posture. I hope the Strategic Commission we have established takes full advantage of the great depth of experience and expertise of your staffs. It is world-class men and women in organizations that you represent that have real capabilities, and we must maintain those capabilities into the future.

Again, I would like to tell the chairman I agree with her remarks. This is an extremely important hearing. And we may be interrupted, but we will get through it somehow.

Thank you for this, chairman.

Ms. TAUSCHER. Thank you, Mr. Everett. Thank you for your leadership. And I agree with your remarks, too.

Gentlemen, the floor is yours. As we have received your prepared statements in advance, we will be entering them in the record. If you could simply summarize, we would be welcoming that.

And, General Smolen, we will start with you.

STATEMENT OF GEN. ROBERT L. SMOLEN, USAF (RET.), DEPUTY ADMINISTRATOR FOR DEFENSE PROGRAMS, NATIONAL NUCLEAR SECURITY ADMINISTRATION

General SMOLEN. Madam Chair, Ranking Member Everett, and members of the subcommittee, I do thank you for allowing me to be here today to talk about our 2009 Defense Programs budget.

As you noted, ma'am, this is my first appearance before the group. And I am the new guy, but I am honored to be here.

I did retire from the Air Force last year after about 33 years of service. My last assignment was as the Commander of the Air Force District of Washington, but just prior to that I was serving on the National Security Council (NSC). And that was during the same time that my colleague, Will Tobey, was also on the National Security Council, so we have a long history of working very closely together. We did very similar kinds of programs there that we help monitor now, and it is a privilege for me to be here again with Will and work these issues.

Prior to going over there, I had been in charge of the Air Force Nuclear and Counterproliferation Offices, so I brought that more operational customer focus. And now I am seated in the supplier seat; and so what you see depends on where you sit, and so I will share with you some of the things that I am seeing today.

My day-to-day working, though, with Will does reflect a synergy between the NNSA Defense Programs and Nuclear Nonproliferation. In 2002, of course, President Bush and Putin signed the Moscow Treaty and reduced the number of weapons to 1,700 to 2,200 and cut the stockpile. And we have been very successful in doing that. In fact, it was achieved. The 50 percent reduction was already achieved, and we are working on an additional reduction.

But this is going to be the smallest stockpile that we have had in the last 50 years. And the reductions in that increase our workload in the dismantlement area. And I hope to touch upon many of the issues that both you and Congressman Everett mentioned in your opening remarks.

But I do want to assert, certainly, that today's nuclear weapons stockpile is safe, secure, reliable, and it is not required any post-deployment nuclear testing to date, nor do we plan to do any.

However, while the stockpile does remain safe, secure, and reliable, the weapons laboratories are justifiably concerned about the future. Our nuclear weapons complex is at a crossroads, and maintaining the status quo is an option that we simply cannot afford. Delay and inaction will only increase the costs and elevate the risks associated with maintaining this aging stockpile.

Now, regardless of the stockpile transformation plans, we do have to upgrade our facilities. And the challenge for us will be to move from that aging nuclear weapons complex that many of you visited, and move into a 21st century national security enterprise that is integrated, modern, cost effective, and eliminates any unnecessary redundancy, but also keeps us at the forefront of our science and technology.

Our efforts to effect this change were announced last December, and it was the Complex Transformation. We are going to simply try to replace some of our aged infrastructure and transform some of our contracting, procurement, and management practices to em-

brace the best in business and human capital processes that we can find.

We also seek to leverage our core competencies in weapons design and engineering to advance our leadership in a whole host of other areas, areas that are very important to us, like counterterrorism, nonproliferation, physical security, cyber security, and support to our intelligence community (IC).

The transformation strategy that we have set out on relies on four pillars. We want to transform the nuclear stockpile in partnership with the Department of Defense; we want to transform to a modernized, cost-effective nuclear weapons complex to support needed capabilities in our physical infrastructure; we want to create an integrated, independent enterprise that employs best business practices to maximize efficiency and minimize our costs; and, finally, we want to advance the science and technology base that is the cornerstone of our nuclear deterrents and is essential to our national security.

As you mentioned, ma'am, the committee authorized $66 million last year for the RRW concept study. Last year's Omnibus Appropriations Act zeroed out that program funding.

However, the Administration and NNSA continue to believe strongly that it is necessary to pursue the concepts. And we have asked for $10 million to continue the study so that the future Administration will have an opportunity to make an informed decision on the composition of the stockpile.

We believe the RRW concept is important for a number of reasons. By design, it would not provide a new role for nuclear weapons or any nuclear capabilities. As Congressman Everett mentioned, if you take a 1961 car or a 2008 car, it is still transportation. So we are providing the same capability; there is nothing really different in that. But it would help us to sustain our military capabilities.

Building the RRW would not increase the size of the nuclear stockpile. In fact, it should further enable reductions. Once a transformed production complex demonstrates that it can produce replacement warheads on a time scale responsive to technical problems in the stockpile or adverse geopolitical changes, then the reserve that we would necessarily have to maintain could be eliminated, further reducing the nuclear stockpile and reinforcing our commitments to the Nonproliferation Treaty (NPT).

Because replacement warheads would be designed with more favorable margins and less sensitive to the incremental aging effects, introducing them in the stockpile would also reduce the possibility that the United States would ever be required to have a nuclear test to diagnose or remedy the stockpile problems. This supports our overall efforts to dissuade other nations from conducting tests.

By incorporating the modern security features, RRW would strengthen the security of the United States' nuclear weapons against unauthorized use in the event of a nuclear terrorist attack.

And, finally, a secure, safe, reliable nuclear deterrent credibly extends to our allies and supports our nonproliferation efforts because our allies know that our nuclear deterrents extend a guarantee. This nonproliferation role of U.S. weapons is often misunderstood.

I look forward to answering any further questions, and I will now turn the microphone over to my colleague, Will.

[The joint prepared statement of General Smolen and Mr. Tobey can be found in the Appendix on page 33.]

Ms. TAUSCHER. We have one vote, my colleagues. So if we would let Mr. Tobey go, and if you could summarize in about 5 minutes, then we could take the vote and be back in about 15 minutes. If that works for everybody, that is the way we will proceed.

Mr. Tobey.

STATEMENT OF HON. WILLIAM H. TOBEY, DEPUTY ADMINISTRATOR FOR DEFENSE NUCLEAR NONPROLIFERATION, NATIONAL NUCLEAR SECURITY ADMINISTRATION

Mr. TOBEY. Certainly, thank you.

Madam Chair, members of the committee, thank you for the opportunity to discuss our fiscal year 2009 budget request for nuclear nonproliferation.

I am pleased to be here with my colleague Bob Smolen, as well as my Department of Energy colleagues. Bob and I do have a good working relationship, and I think that will translate to improved work at NNSA.

I will be brief, knowing that your time is limited before the vote and also that members of this committee are well versed in our work.

The fiscal year 2009 budget request for the Office of Defense Nuclear Nonproliferation totals $1.247 billion. This amount will allow us to continue our mission to detect, secure, and dispose of dangerous nuclear and radiological materials.

Many of our efforts focus on nuclear materials and facilities security. We recognize that the best way to reduce the threat of proliferator or terrorist acquisition of nuclear weapons or devices is by denying them access to necessary nuclear and radiological materials in the first place.

To that end, our fiscal year 2009 request will allow us to accelerate our work, including installation of radiation detection systems at 9 additional ports under our Megaports Program, for a total of 32 Megaport sites worldwide, helping to secure 49 border crossings and other high-risk ports of entry under our Second Line of Defense Program, and expanding export control and commodity identification activities with more than 50 countries.

Additionally, in fiscal year 2009, we will undertake a new initiative to strengthen international safeguards to prevent the diversion of nuclear materials to non-peaceful uses. This next-generation safeguards initiative will develop the safeguard technologies and human resources needed to sustain our nonproliferation efforts, and it will help to strengthen the Nonproliferation Treaty.

Underpinning all of these efforts is our nonproliferation research and development work through which we will continue our leadership as the principal federal sponsor of long-term proliferation related R&D on nuclear detection and characterization.

Our fiscal year 2009 budget request will also allow us to accelerate our efforts under the Global Threat Reduction Initiative (GTRI) to convert highly enriched uranium (HEU) fueled research reactors around the globe and to use less proliferation-sensitive,

low-enriched uranium (LEU). To date, we have removed enough nuclear material for nearly 70 weapons and secured enough radiological sources for 8,000 dirty bombs.

In fiscal year 2009, we will convert an additional 8 HEU reactors to LEU and remove an additional 700 kilograms of HEU, and secure an additional 125 radiological sites across the globe.

Last year, I updated you on our progress under the 2005 Bratislava Joint Statement on Nuclear Security in which we partnered with Russia to secure its nuclear weapons and sites of highest concern. I am pleased to report that we have completed 85 percent of these key upgrades to date; work is underway at the balance of the sites, and we are determined to finish it by our deadline at the end of this calendar year.

In fiscal year 2009, should Congress grant our request for resources, our focus will be on completing additional high-priority security works beyond the Bratislava agreement but still integral to ensuring optimal control over nuclear materials, and working cooperatively with Russia to put in place systems and procedures to sustain these security upgrades.

Additionally, our fiscal year 2009 budget request also includes funding to ensure the shutdown of the last remaining Russian plutonium production reactor in 2010. These material security efforts enhance our work to strengthen the nonproliferation regime and the multilateral partnerships supporting it.

In this regard, we will continue to support the work plan of the Global Initiative to Combat Nuclear Terrorism to advance the objectives of United Nations Security Council Resolution 1540, which mandates effective export controls, criminalizes proliferation of weapons of mass destruction (WMD) by non-state actors, and requires states to secure proliferation-sensitive materials.

We will, likewise, continue our technical and diplomatic support of U.S. efforts on the Nonproliferation Treaty within the nuclear suppliers group and on multilateral initiatives, such as international fuel assurances and on the disablement of the North Korean nuclear facilities which are now being funded through State Department funds. I would add that if we are to continue this work in North Korea, which I believe to be vital, we will need relief from the Glenn Amendment, which restricts funding.

We feel a great sense of urgency to complete our missions. We appreciate deeply the strong support of this committee, and we look forward to working with all of you on these vital issues.

I thank you for the opportunity to testify. If I could take a moment or two to address the questions that have been given to me already, I would like to do so, if you have time for that.

[The joint prepared statement of Mr. Tobey and General Smolen can be found in the Appendix on page 33.]

Ms. TAUSCHER. We have got to go vote. We have got to be there——

Mr. TOBEY. Okay.

Ms. TAUSCHER [continuing]. In a 15-minute window. So we will vote. We think that there is only one vote, but it may be a little longer.

The hearing will be suspended temporarily. Please make yourselves comfortable. The staff will let you know whether we are

pinned down there for one or more votes. We will be back as quickly as we can.

[Recess.]

Ms. TAUSCHER. We want to thank everyone for their patience.

Assistant Secretary Rispoli, thank you for appearing before us again. The floor is yours.

STATEMENT OF HON. JAMES A. RISPOLI, ASSISTANT SECRETARY FOR ENVIRONMENTAL MANAGEMENT, U.S. DEPARTMENT OF ENERGY

Secretary RISPOLI. Thank you, Madam Chairman.

Good morning——

Ms. TAUSCHER. Good morning.

Secretary RISPOLI [continuing]. Madam Chairman, Congressman Everett, members of the subcommittee.

I am really pleased to be here today with my colleagues and would like to note that this marks 20 years since the Environmental Management (EM) Program was first established. A lot has been accomplished, and I actually have a few photos to share with you, but a lot more still needs to be done.

When I first appeared before the subcommittee two years ago, I pledged to you that safety would remain our first priority. No milestone is ever worth an injury to our workforce.

Today, I am pleased to report that worker injuries have been reduced by 50 percent in the past 3 years. And our injury rate is less than 10 percent of that in comparable commercial waste disposal and construction industries.

When I was sworn into this position, I set about to refine all of EM's cost and schedule baselines which guide every project. During the past 18 months, all EM projects, both our line-item construction projects and our cleanup projects, have undergone independent audits to verify their costs and schedules as valid and reasonable.

Today, our project estimates and assumptions can be viewed, I believe, by you and by all of our stakeholders with far greater confidence than ever before. And I stress to you the entire portfolio of the cleanup program has been independently audited.

At that time, I also stated that our goal was for the cost and schedule performance of at least 90 percent of our projects to be on target or better than on target with respect to cost and schedule. In July of 2005, 17 of our projects were not on cost or on schedule, which equated at that time to 51 percent being on time and on cost.

We have worked very hard at this, and today we have consistently maintained better than 90 percent of our projects on time, on cost. I know you cannot see this chart, but this just shows how we have consistently made progress in improving the performance of all of the projects in our program.

Turning now to our fiscal year 2009 budget request, our request for Defense Environmental Cleanup is $5.3 billion, and it continues to be based on the principal of prioritizing risk reduction across the entire complex.

Let me address an issue that I know has caused concern, has been reported in the press as caused concern to several Members

of Congress, and that is that this request has broken with past understandings related to the Department's cleanup budget strategy.

I will mention the testimony my predecessor gave to this subcommittee in 2004. Then Assistant Secretary Jessie Roberson testified that after a period of accelerated funding peaking in fiscal year 2005, "We anticipate funding will then decline significantly to about $5 billion in 2008." Thus, viewed from this perspective our fiscal year 2009 budget request, for all accounts, is actually about a half billion dollars more than what was projected five years ago and reported to Congress five years ago.

The Administration recognizes that with this budget before you some of the milestones in our cleanup agreements are in jeopardy of being missed. It is important, however, to note that other milestones are in jeopardy due to technical reasons regardless of funding.

As a result, we have had to make very careful decisions regarding our priorities. The regulatory agreements that guide our work have been, and remain, important measures of progress. The Department's strategies continue to focus on cleanup that will produce the greatest environmental and safety benefit and the largest amount of risk reduction.

I would like to highlight some of our accomplishments that demonstrate our ability to make progress in cleaning up the environment and reducing risk to public health and the environment.

The first photo I would like to share with you is the Savannah River. You have the photo; it is labeled "Savannah River M-Area." Here, nuclear fuel was fabricated for use in the Savannah River reactors to produce weapons-usable nuclear materials.

DOE and its contractors decontaminated and decommissioned 6 aboveground tanks and 22 buildings totaling more than 170,000 square feet, which is equivalent to nearly 4 football fields. We continue to remediate the groundwater beneath this site.

The second photograph is labeled "Hanford Site River Corridor," and this area served a similar function as the M-Area that you just saw at Savannah River. It is located on the outskirts of the city of Richland, and as you can see in the photo, it is right alongside the Columbia River. The area contained 270 radioactive and hazardous facilities.

As you can see from the X's on the photo, we have decontaminated and demolished many of those structures, 140 to be exact, and have safely removed 2,000 metric tons (MT) of excess uranium for disposal or safe storage.

The next photograph I will show you is a photograph of the gaseous diffusion converters and equipment at East Tennessee Technology Park. This shows that we have removed nearly 50,000 tons of equipment, which is comparable to the displacement of a World War II-class battleship from the Oak Ridge K–31 Building, which is about the size of 40 football fields. Now that this high-risk material has been removed, the building is available for industrial reuse.

In your letter inviting me to testify, you asked me to update you on major project activities in our program. Much of the information is contained in my written testimony, which has been submitted for the record. I would, however, like to highlight just three things.

The Salt Waste Processing Facility at Savannah River: For that project, we expect design completion by early fall. Site prep is nearly complete, and we expect to begin construction of the base mat this June. In the meantime, we have been treating salt waste through interim processes for onsite disposal at Saltstone.

For the Hanford Waste Treatment and Immobilization Plant, the design is approximately 75 percent complete, and the construction is nearly 40 percent complete. I have given you a photograph, an aerial, of that project as well, so that you can see a picture of just how large that is and how much has been accomplished.

[The information referred to can be found in the Appendix beginning on page 95.]

I would like to note that last week, Secretary Bodman informed Congress by letter that he had certified the Waste Treatment Plant's contractors earned value management system. This was required by Section 3120 of last year's National Defense Authorization Act (NDAA), actually the 2007 National Defense Authorization Act.

As Chairman Tauscher mentioned, the Department is in the process of consolidating storage of surplus non-pit, weapons-usable plutonium. We are moving it from Lawrence Livermore National Lab (LLNL) and Los Alamos National Lab (LANL), as well as the Hanford Site to the Savannah River Site (SRS). There, the plutonium is currently planned to be disposed of using up to three facilities: the Mixed Oxide Fuel Fabrication Facility, currently under construction; the existing H-Canyon; and a proposed small-scale plutonium vitrification capability.

As Congressman Everett noted in his opening, the Department is indeed currently evaluating an alternative disposition approach that could eliminate the need for the vitrification capability and rely on the other two components.

Highly enriched uranium is also being consolidated at the Savannah River Site using the H-Canyon to blend the material to a low enrichment to meet the Department's programmatic needs, and as appropriate for use in commercial reactors. Highly enriched uranium has already been shipped from the Y–12 Plant at Oak Ridge, and preparations have been made to receive the material from both the Lawrence Livermore and the Los Alamos National Labs.

Two days ago, as you know, Secretary Bodman issued a policy statement on the management of the Department's excess uranium inventory, which reaffirms and is consistent with the approach that we are currently taking.

Madam Chairman, I am proud of the progress our 34,000 contractors and federal employees have made in recent years, and the wise and secure foundation we have been building for the future.

This subcommittee has provided the critical guidance that has enabled us to accomplish the successes we have had to date. I look forward to working with you in my remaining time at the Department, and I thank you sincerely for supporting our efforts to reduce risk to our citizens, our communities, and our Nation. Thank you.

[The prepared statement of Secretary Rispoli can be found in the Appendix on page 61.]

Ms. TAUSCHER. Assistant Secretary Rispoli, thank you very much for your testimony.

Mr. Podonsky, you have been here quite a few times. Welcome back to the committee. The floor is yours.

STATEMENT OF GLENN S. PODONSKY, CHIEF HEALTH, SAFETY, AND SECURITY OFFICER, U.S. DEPARTMENT OF ENERGY

Mr. PODONSKY. Thank you, Madam Chair and Ranking Member Everett, and members of the subcommittee. I appreciate your inviting me to testify today.

I promise to be brief. But considering the broad missions of my organization, which affect all of my colleagues here, I think it is important that I summarize some of our important efforts that are underway currently.

As the DOE's organization responsible for Health, Safety, and Security (HSS), we provide the DOE with policy development, technical assistance, training, independent oversight, and enforcement. We want to assure the committee that HSS continues to strengthen the Department's safety and security posture through initiatives based on the priorities established when our office was created.

We have institutionalized our infrastructure; we are recognized by the DOE leadership team, the workforce, other U.S. agencies and the international community as an organization that is striving for excellence in health, safety, and security.

With the creation of HSS, we saw the importance of identifying programs that would enable workers to have other access to DOE managers for worker health and safety. During the past year, we have conducted a series of focus group meetings with trade unions, professional associations, and DOE program offices to strengthen those lines of communication and identify areas of concern or interest. We interface extensively with other federal organizations to improve the overall safety and security posture of the Department.

Our Security Technology Deployment Program has partnered with DOD, the intelligence community, and others for deployment of new security technologies. Using safety and security experts, we function as the corporate catalyst for deployment of effective security technologies across the complex.

We have formed a new relationship with both the Department of Labor and the National Institute of Occupational Safety and Health to better facilitate the implementation of the Energy Employees Occupational Illness Compensation Program Act. We published a status report on the former Worker Medical Surveillance Program to inform our former and current workforce, Congress, and the public of the efforts being undertaken for those individuals who may have been exposed to harmful conditions while working for DOE.

In the international arena, we renegotiated the agreement between DOE and Japan to end our 42 years of financial obligations in fiscal year 2009 for the environmental studies associated with the accidental release of nuclear materials in Palomares, Spain. We have also strengthened the DOE's relationship with the government of Japan and the Marshall Islands to better manage these health programs.

We are currently in the process of completing a review of all security requirements, and initiated a review of all safety requirements to make sure that they are performance-based, clear and

concise without being overly prescriptive or redundant. We continue to conduct comprehensive, independent oversight inspections of the DOE performance in security, cyber security, emergency management, environment safety and health. Results from these inspections provide the senior leadership and line managers with information needed for improvements.

For example, our Office of Cyber Security executes one of the most aggressive, sophisticated cyber security oversight programs in the Federal Government. The cornerstone of our cyber-security function is to implement a rigorous penetration testing program in both announced and unannounced testing. Everyday threats to our information systems continue to grow, and while we have many challenges in this area, the Department is proactively addressing the weaknesses that we continue to identify in cyber security.

HSS is also promoting improvement in the Department's safety and security programs through the implementation of DOE's legislatively mandated enforcement programs. We have integrated the Worker Health and Safety and Classified Information Security Enforcement Programs with the Nuclear Safety Enforcement Program. Our efforts have resulted in the highly publicized Notice of Violation against Los Alamos National Laboratory contractors. We are currently conducting several enforcement investigations, including an inquiry into the events that led to the release of nuclear material at the Hanford Site.

Madam Chair, members of the subcommittee, the Secretary of Energy created HSS to strengthen worker health and safety and security, and we believe we have demonstrated to many of our skeptics that we can improve the health and safety and security of the Department while improving program management and alignment of the responsibilities and those functions. We are confident that with the continued support of the DOE management, our stakeholders in Congress, we can continue to expand on our accomplishments. Thank you.

[The prepared statement of Mr. Podonsky can be found in the Appendix on page 70.]

Ms. TAUSCHER. Thank you, Mr. Podonsky.

We have another vote. It is a 15-minute vote. Perhaps we can start by just asking one question.

And, General Smolen, the NNSA has identified goals for staff reduction at each of the labs and sites within the complex. Do the reductions that have already occurred during the current fiscal year count toward these goals?

General SMOLEN. The Complex Transformation goal of 20 to 30 percent would ultimately include those numbers. We still have a ways to go, and some of that will be dependent on the outcome of Complex Transformation and what choices are made.

Ms. TAUSCHER. Okay. Thank you.

Deputy Administrator Tobey, this is a question about plutonium disposition. In the Fiscal Year 2008 Consolidated Appropriations Act, funds were reduced for the planned MOX Fabrication Facility, as we all know, and transferred its funding out of the NNSA to the Office of Nuclear Security.

However, a February 22, 2008, memo to Secretary Bodman from DOE General Counsel states that the Secretary is not legally able

to transfer management of the project out of the NNSA. The memo recommends an Economy Act to formalize continued management of the MOX project by the NNSA with funding from Nuclear Energy.

What cost increases and schedule delays will result from the cuts to the project contained in the Fiscal Year 2008 Consolidated Appropriations Act, both in direct appropriations and rescinded on obligated balances?

Mr. TOBEY. Madam Chair, if I could answer both a question you raised in your opening statement——

Ms. TAUSCHER. Sure.

Mr. TOBEY [continuing]. And this, because I believe they are related.

You had asked about whether there are adequate funds in our budget for materials consolidations.

Ms. TAUSCHER. Right.

Mr. TOBEY. I believe that is the case of the request. But I would note in that regard that a vital element of consolidation is our Fissile Materials Disposition Program.

Ms. TAUSCHER. Right.

Mr. TOBEY. Unless that program is successful, we cannot successfully consolidate materials within the Department. And with respect to that, the cuts to the program within the 2008 budget that you cited are a serious source of concern.

With respect to what those cuts will result in, in terms of a longer project or higher costs, we are still working on that analysis. We will be forced to re-baseline the project, unfortunately, because of the cuts unless there is some restoration of those funds, which amount $215 million for the U.S. project alone. There were additional cuts to the overall program involving the Russian program.

And so, we should come back to you once that re-baselining is done. Obviously, we want to be very careful and thorough in completing that because we want to give absolutely the most accurate figures that we can.

Ms. TAUSCHER. As you know, we are going to be moving to our markup, which will be in the May timeframe—full committee, end of May—to the floor in June. That is our window of opportunity for us to do corrective action, if we need to, in this current bill. So we would like to work very closely with you to get these numbers, get the timeline adjustments, what the ramifications are of the shortfall, and how we actually work to correct it.

I think that there is a linking that we have not clearly made about, if you want this result, then you have to do these two things. There is a twinning of them that is a case that we have not made—I mean "we" in the "big we." So we are happy to help make that case, assuming that we understand what these ramifications are.

So if we could, you know, chat in the next couple of weeks, certainly over the break, and then in early April, I think Mr. Everett and I, and the committee will be very interested in understanding exactly what these are, and what we can do in the bill that we are going to be building in the next 8 to 10 weeks.

Mr. TOBEY. We would be very pleased to work with you. Budget cuts to an approved baseline result in project delays and higher

costs. There is no way around it; it is a matter of physics and math.

Ms. TAUSCHER. We appreciate that.

We have about eight minutes left. Do you want to ask a question, Mr. Everett? I would be happy to go to you.

Mr. EVERETT. Ms. Chairman, I would rather go and come back.

Ms. TAUSCHER. All right.

We apologize. We have got another vote. We will suspend the hearing temporarily, and witnesses will be made comfortable.

[Recess.]

Ms. TAUSCHER. Once again, we thank you for your patience.

We are going to go to Mr. Everett for questions.

Mr. EVERETT. And thank you, chairman.

General Smolen, let me read from my opening statement: "This year's budget request for RRW is a mere $10 million. I cannot imagine that this is significant to complete the Phase 2a cost and design study, which is important to inform the Strategic Commission, Complex Transformation, and future decisions about our Nation's stockpile and composition." And I would ask you if—let me go a step further here. As I understand it, the fiscal year 2009 funds would address the fundamental sites and certification questions raised by JASON and continue 2a cost and design studies. Is that really enough money? Will that really get us where we need to go to get this information to these folks?

General SMOLEN. Sir, the $10 million that we have for RRW was to enable the maturation of the RRW design to address the questions raised by JASON, as you point out. These design refinements are necessary if we are going to have to establish the parameters for potential impacts on certification.

No, sir, it is not what would be required to complete the study. In order to do that, we would need about $65 million more.

Mr. EVERETT. The Commander of STRATCOM recently testified that we are accepting significant future risk to reliability, safety, and security and maintainability of our legacy Cold War stockpile, risks that were perhaps acceptable during the Cold War, but that would not be acceptable to our future combatant commanders and security of this country. Would you go into that a little bit?

General SMOLEN. Yes, sir, I would be happy to. In fact, General Chilton and I were contemporaries and served together on several occasions. And I will be with him on Monday at Pantex.

General Chilton has taken a very keen personal interest in understanding the complex and some of the challenges that we face. I think he is very, very aware of the situation surrounding the RRW concept. He is also very concerned about the issues associated with Complex Transformation in order to be able to support him and his successors in the future.

In very broad terms, I think General Chilton has come to realize that, much of what you already know, that the aging weapons, coupled with the aging infrastructure, present us with potential challenges in the future that we simply have to do something about. And while we are on a path to begin to stem some of those issues, there are still a lot of challenges that we face.

Mr. EVERETT. Would you go into detail about the possible risks associated with the LEP program?

General SMOLEN. Well, sir, the difficulty we really have basically goes to the aging. As you very appropriately mentioned, we have a B61 built in the 1960's. We are in the process of trying to refurbish that. We did some work with the 7, 11 with the physics packages. We still have a lot of non-nuclear components that are tubes that we are concerned about.

If General Chilton is being asked to establish plans for targeting, he needs to be certain that those weapons are capable of yielding what is required. And I think he has seen some of the challenges associated with that. The W76, as you know, we are working some issues with that; there are some challenges there.

So I think he is just expressing a concern that as the stockpile continues to age, if we are faced with continually doing Life Extension Programs, and if some of the materials we need to do that are unavailable and we have to remanufacture new ones, then we continue to build on the uncertainty which may some time in the future have the lab directors question whether or not, in light of all the changes, they would be able to certify those weapons. And of course if they are not, then that is an extremely difficult position for General Chilton to be in.

Mr. EVERETT. Is there window in which, at some point in time, we drop off the end of the cliff with this?

General SMOLEN. I am sure there must be, sir, but we do not know what that is.

Mr. EVERETT. That is one of the problems that we have in trying to decide funding issues and that sort of stuff.

Ms. Chairman, that is my final question. But I would like to see if we can get some sort of idea of a time frame: when must we start working toward solving this problem?

Ms. TAUSCHER. I agree with you, Mr. Everett. I also think the white paper is going to be informative, because it is a DOD product, and the client will direct us as to what they think the requirements will be, so we can match capabilities with requirements—

General SMOLEN. Yes, ma'am, I believe the secretaries have either signed, or are on the verge of signing that paper over to you.

Ms. TAUSCHER. Yes, I think we might see that in the next 10 days. So, Mr. Everett, I agree with you.

Why don't we talk subsequently. If you want another hearing on another issue, I think that some of this will be classified, and perhaps a hearing that we have talked about on other issues that have a classification issue that, whether it is MOX or other things, we will have to do that.

General SMOLEN. Yes, sir, and the more specific issues that you were addressing as to some of the problem areas, we would have to go to a classified setting to discuss that much further.

Mr. EVERETT. Chairman, thank you.

Ms. TAUSCHER. Mr. Everett, thank you.

Mr. Larsen of Washington.

Mr. LARSEN. Thank you, Madam Chair.

Secretary Rispoli, welcome back. A few questions for you regarding Hanford. You can help us out with that.

First question has to do with the Waste Treatment Plant. And we know it is designed to process 100 percent of high-level waste, about 50 percent of the low-activity waste at the Hanford Site, and

the DOE has been pursuing a Bulk Vit Technology to process the remaining low-activity waste.

Critical Decision-2 was expected for Bulk Vit Technology in January. Yet that milestone, so far as I know, has not yet been finalized. Further, the budget request includes only $1 million for Bulk Vitrification while supporting the pursuit of alternative approaches.

Can you help me out with the true status of the Bulk Vit Technology development, the expectation when Critical Decision-2 will be met, and DOE's plans for treatment and disposal of low-activity waste at Hanford?

Secretary RISPOLI. Thank you.

As you correctly stated, the plant as it is designed will treat in its life 100 percent of the high-level waste, 50 percent of the low-activity waste. That has been the plan ever since the plant was reconfigured at the end of the Clinton Administration, and it was upsized, you might say. Originally, it was only to treat 10 percent by volume, 25 percent by radioactivity content, of all the waste there.

But it was upgraded, as I say, at the end of the Clinton Administration to the configuration we have now. So we have recognized all along that we have to have some sort of supplemental treatment to deal with the rest of the low-activity waste.

Right now, we are looking at bulk vit very, very seriously. And I have testified that in past years as well, as I am sure you know. We are also looking at other options, they are not mutually exclusive. What I am about to mention, when I say one they are not one versus another, these are options that we are looking at.

One is Bulk Vitrification. One is perhaps adding a third low-activity waste melter. Another is seeing if we could increase the throughput of the low-activity waste melters. Another would be if we want to begin processing waste early, whether we would want to start processing even earlier than the completion of the entire plant in 2019.

And because we have these options, and because we want to focus on the right way to go forward, I have asked that we have a group of outside people, outside experts, come in and take a report that was completed last November, I believe it was, of 2007 called—it was a low-activity waste study. It is on both our DOE website, and it is on at the technology website, as well as on the Office of River Protection's website. And if you would like a copy, it is in the public domain. I could print one off and get it to you.

But in any event, we have asked these people to look at all of these options—again, they are not mutually exclusive options—to help guide us to the right business decision, so that when we make that decision, we know that we have made the right decision. We don't want to make a decision and then determine that perhaps it is not optimal.

Clearly, bulk vit has performed through all of its testing, its surrogate testing, and has performed very well. We are looking at: Where would it be? How many lines would it have? How long would the demonstration operate before you build the final one? Whether you really need the demo one at all, or could you go into a preliminary version of the final? All of these options we want to

really understand, and I expect that within just a few months, we should have that nailed down.

Mr. LARSEN. So is that the reason, then, that Critical Decision-2 has not been met, which would be the approval of a performance baseline?

Do you want to settle on your setup first?

Secretary RISPOLI. Well, I think that the two could be operating in parallel, and I think we were clearly waiting for the outcome of the tests. I think the latest tests were completed this winter. We had to wait for some laboratory results to come back. My understanding is all of those worked very well. So I don't know that we need to hold up on——

Mr. LARSEN. Okay.

Secretary RISPOLI [continuing]. The Critical Decision-2. But at the end of the day, in the final analysis, we really need the outcome of this group of experts. They are three eminent people in the Nation that have done this for us before, and I expect to have that in, like, the June timeframe.

Mr. LARSEN. In about June?

Secretary RISPOLI. Yes, sir.

Mr. LARSEN. With regards to River Corridor, I mean it goes without saying that inadequate support for Hanford funding, and much less funding for the other facilities around the country, over the last few years has made it impossible for DOE, with regards to Hanford, in our view in Washington state, to meet its obligations under the Tri-Party Agreement.

In this budget, I am particularly concerned about the cuts in some programs on River Corridor that could lead to a degradation of the workforce that we have there. You noted, I think rightly so, that there has been a lot of cleanup, but this still leaves a lot left to do as well.

So with these cuts in the programs leading to potential degradation of the workforce, that could lead to potential problems in the future. So given that these cuts exist and River Corridor closure could lead to degradation of the workforce, to layoffs, how can we plan to ensure that we will have a trained workforce to do the job in the future to get this completed? How do we maintain consistency?

Secretary RISPOLI. Yes, sir. I think that is a real challenge, for not only Hanford but for sites everywhere because there is such a demand for nuclear workers, and we know that when you shut down an operation, it takes time to bring it back up.

I would point out that I did share with you all the photo with the X's through it of all the facilities that have come down at the River Corridor. And, as you know, we are structured by contract, and you are correct in talking about workforce.

I would also like to point out that along the River Corridor primarily, this budget plusses up the groundwater efforts by $65 million, taking it from about $104 million to $169 million. And, as you know, the groundwater issue is the Columbia River; that is really what we are worried about.

And so what we did was we went through a risk—we basically used a risk prioritization system. Our objective is to address the highest risks first. And I think that we recognize that with $2 bil-

lion a year going to Hanford, nominally $2 billion, we believe that the greater risk to the public and the environment is the groundwater.

We have got some promising new technologies. We have plussed up, as I say, significantly in the groundwater area, and that is mostly along the River Corridor as well.

So, we recognize that there will be some perturbations, but we also recognize we have got to focus on where is the higher risk. And we clearly think that has to be the Columbia River.

Mr. LARSEN. With regards to these technologies you mention, are they proven technologies, or is this going to be an opportunity to attempt to mature these technologies, to use a terminology that I hear around.

Secretary RISPOLI. Actually, we have had some great success. We are using materials that have not been used before. Some of the results have already been published in scientific venues. But, yes, we are having success.

Before, we were primarily using pump-and-treat or other treatments, and we know that some of the contaminants were still getting to the Columbia River, or at least migrating toward it. And now we are injecting things into the ground that actually are interdicting and stopping.

And so we are very pleased with the outcomes. We actually have a few pamphlets on it, again, that are in the public domain, and I would be happy to just get those to your office so you can see what we are doing.

Mr. LARSEN. Could you do that?

Secretary RISPOLI. Yes, sir.

Mr. LARSEN. Madam Chair, just an additional question, if I may, for Mr. Podonsky on medical screenings——

Mr. PODONSKY. Yes, sir.

Mr. LARSEN [continuing]. Yes, exams. I understand that you are established not only to improve the program management for health, safety, and security, but also to actually improve the health, safety, and security of DOE workers, and that includes a commitment to providing medical screening exams to former employees to identify adverse health effects that may have resulted from working at DOE facilities, and I understand that more than 600,000 people are eligible in the former worker program and may need screening.

This element, the occupational health element, was appropriated about $16.4 million 2008, and the budget request is for $17.9 million. Just with that sheer number of people who are eligible to participate, over 600,000, is $17.9 million even enough? Even though it is an increase, is it even enough for 2009? And what can you tell us about being sure that folks who want screening are going to get screening?

Mr. PODONSKY. The program itself that you are referring to was actually started by the Department in 1996, and it is a consortium of universities and labor unions that are doing these medical screenings.

And I will tell you, when your HSS was first set up, the former organization that became part of ours only had budgeted $12 million, but they were spending about $16 million. And that was in

2007. In 2008, we put it back up to $16 million again, finding monies within our own budget. For the 2009 budget—this is our first budget as HSS and we are not really sure what it is exactly that we need.

And we have pulled the consortium of grantees together for the first time. We are meeting again with them in April because we are challenging them to help us understand how are they reaching out to get all these former workers. Because if you look over the history of the program, which is just 12 years, close to 600,000 former workers, only 50,000 have been screened. But when you do the math, it is about $2,500 per screening, and we know the cost is a lot less than that.

So we are trying to get these organizations to get control of their infrastructure. We want to make sure that we are also able to reach out to more of the former workers in the population, identify who they are, because we also think that this is a great improvement over the way it has been run in the past.

But more importantly, we want to make sure that the current workforce understands that this $25 billion corporation is taking care of its employees, past and present. We also want to, as I mentioned in my testimony, we want to make sure that we are married very closely with the Labor Department, with the Energy Employees Occupational Illness Compensation Program Act (EEOICPA) program, so that the former worker program can, in fact, feed into the EEOICPA program as appropriate. So these are areas that hadn't been done previously, but we plan to do that.

So to your question, do we know that it is enough? We don't know for sure, but we feel pretty confident that we are moving in the right direction. We don't want to just keep on asking for more money. We want to make sure that we are utilizing it so we can, in fact, screen as many people as want to be screened.

Mr. LARSEN. Yes, good. Thank you.

Thank you, Madam Chair.

Ms. TAUSCHER. Thank you, Mr. Larsen.

Mr. Turner of Ohio.

Mr. TURNER. Thank you, Madam Chair.

Secretary Rispoli, when you look at the Department of Energy 2009 Congressional Budget Request, Environmental Management section—as you know, we have just recently discussed—there is a section in that that concerns my community. And I want to read a few provisions of the Congressional Budget Request, and then I will offer my questions to you.

And, first, let me tell you that from the perspective of the City of Miamisburg, which is referenced in this report, I believe that the Department of Energy and the City of Miamisburg's partnership has been a model. The work that has been done together has been arm-in-arm and, I think, extraordinary. We are to the final throes of completion of this project, and certainly that is where everyone gets most concerned in trying to get the ball over the line so that we know that everyone has done the right thing.

And in looking at the budget request, it references the Operable Unit-1 (OU–1) Historic Landfill, and it says a couple things. One, it says that it meets the requirements under the Comprehensive Environmental Response, Compensation and Liability Act

(CERCLA) and has been accepted by U.S. Environmental Protection Agency (EPA) and Ohio EPA. And it acknowledges that in 2006, Congress directed exhumation of Operable Unit-1 within an appropriation not to exceed $30 million, and an additional $44.5 million has been applied to the remediation at the site.

When you get to the end of the Congressional Budget Request, it says the closure and turnover of 24 buildings and 306 acres to Miamisburg Mound Community Improvement Corporation (MMCIC) were expected to be completed by the end of fiscal year 2008. However, a recent correspondence from the Miamisburg Mound Community Improvement Corporation indicates that they will not accept the remaining land parcels. When final site cleanup of Operable Unit-1 is completed and the two remaining Records of Decision (RODs) are finalized, the complete operational management of the long-term stewardship mission at Miamisburg Closure Project will be transferred to DOE's Office of Legacy Management.

There are a couple of conclusions in here which obviously I hope are not final conclusions, and I think that the community and DOE are continuing their conversations. But here are my two concerns.

One, if the land is unable to be transferred to Miamisburg's Improvement Corporation and is transferred to the Office of Legacy Management, obviously there are going to be ongoing and recurring costs to DOE. And I would ask, one, did the cost-benefit analysis of DOE retaining that land in the Office Legacy Management be considered overall in the decision as to whether or not to execute final cleanup of OU–1? Was DOE currently advocating not to complete that cleanup?

And the second thing is that the assumption that the landfill in its present state could be left to meet CERCLA requirements is based upon our current knowledge of what is there. And one of the problems with landfills, obviously, is that you don't necessarily know what, so you can't necessarily see it as you do tests and do parameters of assumptions. So my second aspect is that, you know, an understanding that DOE will provide a continuous review so that, you know, what we know now might change.

And those really are my two questions about Miamisburg and the DOE's commitment to look at a cost-benefit analysis of final cleanup and then transfer to the Miamisburg Community Improvement Corporation. The second is an ongoing commitment if, as the information might change, that the cleanup standard might be impacted.

Secretary RISPOLI. Congressman, thank you. I know Mayor Church, and I know the members on his team very well. I think, as you state, I think we have a great relationship working with that community. And we are aware, obviously, of the concern they have over OU–1.

One of the things we are doing to help with that is that the current discussions with the community would actually not transfer ownership of OU–1 to the community. And those discussions are ongoing now, and we think to a great extent that will alleviate their concern about OU–1, *per se.*

When we talk about Legacy Management, I think it is important to recognize that all over the country when we turn over properties, whether we keep the property or whether we turn it over, if there

is no other government landlord—like NNSA in certain cases here at their laboratories—Legacy Management takes the role of making sure that the records are maintained, that if there is any groundwater monitoring or ongoing monitoring to be protected that all of that happens. So at any site where there will be no other DOE landlord, Legacy Management will have a role at that site to make sure those functions are done.

And then lastly, we did, as you know, commission a review of the cost to do what remains to be done with OU–1. We sent a report to Congress back in April of 2006 on OU–1 in response to congressional language, and we specifically mentioned in that report that we believed that the $30 million that Congress directed to clean up OU–1 would not be sufficient. And we proposed an excavation-based remedy with priorities such that—and that was acceptable to MMCIC at that time—that approach was acceptable, understanding that we would do it incrementally, so that if the funds ran out, we would tackle the worst first.

So out of the eight priority areas that were mutually agreed, we actually finished, I think it was, five of them, and we are into the sixth. And that is where we wound up out of money, despite putting another $4.5 million into it. So, I have asked for an independent estimate of what it would cost to do the remainder of those priorities that, all along, we knew might not ever get done and was documented in this report.

And with that, I would expect we can do exactly as you suggest, and that is do a cost-benefit of the alternatives. Is it better to just go and do it for the money that we now believe it will cost, or will it be more effective——

With all of that said, we want be sure that whatever we leave there is protective of the community. You know, that has got to be number one, is to be sure that the remedy is protective. And right now, we feel that we are on safe ground because, as you know, both the Ohio regulator and the EPA believe that what we have done to date is protective. I hope that answers your——

Mr. TURNER. A couple things, and first I want to thank Bob DeGrasse and Kari Bingen for their help in visiting the site and their work——

Secretary RISPOLI. Sure.

Mr. TURNER [continuing]. With you on this. Not transferring the facility does not eliminate the concern of the community; the community's concern would remain. And I know that you are aware that the community had made a concession early on as to what the standard of cleanup would be. That made a significant impact on DOE's bottom line for the other portions of the site, industrial versus residential.

The concern that the community has with respect to proceeding is, what really is there? And as you are aware, every time that anything has been opened up, especially since this was not regulated landfill—these were just random disposals that were occurring—additional materials have been found that have been either of a greater concern or an indication that there is something worse there.

And that is where the community's concern has been placed. If this is not cleaned up, this will be the only of the property that is not.

And I appreciate your commitment to doing the cost-benefit analysis. I appreciate the commitment to continue to work with the community on looking at what the standards are for cleanup. And I know as you look to those cost assessments, one of the things that we are going to be looking at is, what assumptions do they take into place as to what is there; and how does that affect Ohio EPA's analysis of when they say that the facility can be left as it is.

So, I am certain this is going to be an ongoing conversation. I appreciate your——

Secretary RISPOLI. Yes, sir. And I would be happy to work with you and your office as we go forward, as well as with Mayor Church. But I think we now have more information to go forward with that type of a decision.

Mr. TURNER. Excellent. And one more question.

Mr. Podonsky, as you know, and as the chairwoman knows, since Madam Chair has been excellent on the issue of security for this committee, I wanted to ask you about the Design Basis Threat, what your current view is of the status of the Design Basis Threat, what additional reviews or issues or concerns you might have about the Design Basis Threat.

Mr. PODONSKY. Thank you, sir. The Design Basis Threat that the Department is currently in compliance with was the 2003 Design Basis Threat. The 2005 Design Basis Threat that was signed out by our former Deputy Secretary, Clay Sell, who just recently departed, committed the Department to being in compliance by 2008.

Without getting into classified information, we are taking another hard look at the expenditures that have been made on the Design Basis Threat, because it was predicated on intelligence information that is somewhat dated. And in March of last year, a year ago, I asked our Director of Intelligence to give us a site-specific analysis of threats against site by site as opposed to a generic threat statement that would advise us on Design Basis Threat. We did not get that from our Intelligence Office. I then wrote another letter this January, and copied my colleagues, and the three Under Secretaries, and the Deputy, getting a little more specific on what we need for this.

My point is, we do need to reexamine where we are in the Design Basis Threat in terms of it is very costly and we have to balance the cost of physical security against the known threats that we have against our sites. Currently, we believe that our sites are well protected. The nuclear material and the other targets are well protected.

But we need to examine whether or not to continue down the path of being concerned about composite adversaries, concerned about what the threat is truly. Because it keeps on changing, and we don't want to chase it with more dollars or more guards, gates, and guns, as we say.

We do feel, again I want to state, we do feel that the Department's physical security is really quite adequate in a number of its sites, so we need to reexamine this. Our bigger concern lies with cyber security.

Mr. TURNER. Thank you.

Thank you, Madam Chair.

Ms. TAUSCHER. You are welcome, Mr. Turner.

Mr. Franks of Arizona.

Mr. FRANKS. Well, thank you, Madam Chair.

You know, it is kind of ironic, I was going to ask a question about security, and probably somebody has already scooped me before I got back.

Ms. TAUSCHER. No, I think that would be a good area to go into.

Mr. FRANKS. Well, let me just start out by saying, General Smolen, I think that you have had just a heroic effort in trying to maintain our deterrent given all the challenges that you have.

And I share the ranking member's concerns about the RRW, and I am concerned, of course, that if we defer the Reliable Replacement Warhead too long the Life Extension Programs will come to a point where you have to make some fairly unpleasant decisions when you have to testify as to being able to certify our deterrent. And, you know, you have the unenviable task of protecting, in a sense, our most critical defense asset, and that is a challenging thing to deal with. And I just want to go on record as saying that I think that the ranking member had a tremendous point.

My question is related to cyber security. I am, first of all, very encouraged about your emphasis on it because while I feel like we have taken some pretty strong measures in that regard, some of the countries that we cooperate with may be at risk.

And I would like to get, Mr. Tobey, your sense of what that risk is, and what the vulnerability represented is and what we should do to address this, especially in terms of, you know, our nonproliferation concerns from other countries that we are cooperating with and their risk to cyber security attacks—or cyber attacks—I guess that is a better way to say it.

Mr. TOBEY. I am sorry, sir, I want to make sure I fully understand the question. Are you referring to other states' cyber security and whether or not——

Mr. FRANKS. Yes, I know that we have that challenge, as well. But it occurs to me that if I were looking at the system, I would be more afraid of people that we are working directly with that haven't reached the level of advancement that we have in protecting themselves against cyber security. They may have all the good intentions in the world, but if their systems aren't sufficiently developed, what—or am I just all wet?

Mr. TOBEY. No, I think, actually, you have raised a good and interesting question and one, frankly, that we have not spent a lot of time on. Our focus with respect to security improvements in other countries has largely been in other areas.

But I think you have raised an interesting question and one that we should probably spend some time on. And, with your indulgence, is what I would like to do is go back and see what has been done, what might be done, and come back to you with an answer.

[The information referred to can be found in the Appendix beginning on page 101.]

Mr. FRANKS. That is great. Thank you.

And thank you, Madam Chairman.

Let me shift gears on you here and talk a little bit about—you know, I think my greatest concern, just personally—I know everybody has the same concern, but you know, sometimes you have an emphasis that you can't get out of your head—is the whole notion of an Iran, or someone like that, gaining sufficient capability. Even if they don't have the ability to hit us with a missile—or even if they do, they know we have their address, and I think they are going to be reticent to do that—just gaining that technology that can be translated into, for lack of a better term I use this term, and I know it is technically incorrect, but a nuclear improvised explosive device (IED) that could be brought into this country and either—and I won't get into some of the thoughts, you know, to try to catalyze any further consideration on their part. But it just appears to me that that is a tremendous risk for us, and that some of your nuclear forensics capabilities might play a crucial role in helping us not only understand where we are, but how we can address, you know, where the potential weaknesses are or leaks are or—I just wonder.

Perhaps I could point that to General Smolen first, and then Mr. Tobey if you are inclined, as well.

General SMOLEN. Yes, sir. I think probably the expert that could help us best answer that question is our Associate Administrator for Emergency Operations. Retired Admiral Kroll does those sorts of things for the Department of Energy, and I think he would have a whole lot more specific information that he could give you with regard to what we are able to do in terms of detection and what our capabilities might be in terms of response.

You may be aware that he and his team have been active in every major event from the Inauguration, to the Super Bowl, to assisting our allies and assisting the Chinese in working the Olympics. So I think we have a somewhat robust capability in terms of detection and response, but I share your concern. It is an area of grave concern for all of us, and we probably need to do better.

Mr. FRANKS. Madam Chair, with your indulgence, I will just ask one more question——

Ms. TAUSCHER. Certainly.

Mr. FRANKS [continuing]. Related to, you know, without some of the plutonium production capability that we have had in the past, the National Aeronautics and Space Administration (NASA) has expressed some concerns that some of their space missions, their long-term space missions, they may not be able to power those missions effectively.

And I know that DOE has talked about restarting the plutonium production at Idaho National Lab, but it looks like that has been shelved, at least to some degree. And I am wondering if DOE intends to resume any plutonium-238 production, and if so, how long would that take to restart, and are NASA's concerns justified?

General SMOLEN. Sir, can I take that for the record and get back to you? I don't know——

Mr. FRANKS [continuing]. Questions we are getting good information back some time——

Mr. TOBEY. I think, if I understand correctly, and I admit this is not my area either, but that the Office of Nuclear Energy works on those issues. But, we can——

General SMOLEN. We will take that for the record sir, and get back to you.

[The information referred to can be found in the Appendix beginning on page 101.]

Mr. FRANKS. Well, the irony is that, you know, I would hate to see NASA be dependent upon Russia for their plutonium supply. That would be a real twist. And, anyway, I thank all of you for what you do. You are that invisible front line of freedom, and if you succeed, maybe the rest of us will; if you fail, it is kind of a bad situation. Well, thank you.

And thank you, Madam Chair.

Ms. TAUSCHER. You are welcome, Mr. Franks.

Mr. Podonsky, when HSS was established, it was structured that you were not responsible for any operational elements with one exception. Nevertheless, within your organization there appears to be an office responsible for the security of the DOE headquarters facilities, which would seem to represent a conflict of interest. That is an office charged with setting policy and providing oversight. It is also conducting operations that need to comply with those very policies.

Does the Department have a plan to deal with this conflict?

Mr. PODONSKY. Yes, ma'am, and you are correct. We do promulgate policy for the Department, we do the oversight, we do the enforcement, but we should not actually have an operational element.

It is not only a perceived conflict, it is a real conflict, as exemplified by we have an inspection coming up for the headquarters that my inspection team will be inspecting my operation, and they both report to me. Now, I have no question that they will do a good job, but nevertheless, there is a——

Ms. TAUSCHER. If you do have a question, will you let us know?

Mr. PODONSKY. Yes, okay.

The Department, actually, when HSS was created, the Secretary and the Deputy Secretary, we had plans that we worked out with the three Under Secretaries that the operational security of the headquarters would actually be transferred to the Management Administration (MA) Account, as the landlord. And in December of 2006 when that move was about to take place, I went to the Secretary and the Deputy Secretary and suggested that it not take place until the MA organization was equipped to take on those responsibilities; they had just gone through a number of Senior Executive Service (SES) retirements.

But we do have a plan in place and, I think, with your question I am sure we should look at executing that sooner than later.

Ms. TAUSCHER. Right. I appreciate that.

General Smolen, with the W88 pit production capability now demonstrated, why any more production? And what are the minimum pit production requirements for Stockpile Surveillance.

General SMOLEN. Ma'am, I believe that we have got in the budget a capacity to do six. I am not sure of the very specific number to give you. But we do require additional W88 pits in order to be able to accomplish Stockpile Surveillance over the next dozen years.

Ms. TAUSCHER. Okay. Well, I think that question is a nice segue into the prospect of a future classified hearing. As Mr. Everett has

pointed out, I think we have a number of different issues, and we will prevail upon you as much as we can to do that after we come back from the spring break.

Gentlemen, we want to thank you for your time. We especially want to thank the tens of thousands of people that you represent—especially the people sitting right behind you—that we know work very, very hard, are patriotic hardworking Americans that have worked for a very, very long time to make sure that we have the safest and most secure and certifiable stockpile.

It is a big complex. It takes lots of people to make it work. And obviously we have continuing EM and health and safety concerns. And we have many challenges with the aging of the stockpile.

But the committee wants to convey to you all our thanks and appreciation. And we hope that you will do that, send our thanks and appreciation to the many people that work for you.

And this hearing is adjourned.

[Whereupon, at 12:25 p.m., the subcommittee was adjourned.]

A P P E N D I X

MARCH 12, 2008

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

MARCH 12, 2008

Statement of
Gen. Robert L. Smolen, USAF (Ret.) Deputy Administrator for Defense Programs
&
William H. Tobey, Deputy Administrator for Defense Nuclear Nonproliferation
National Nuclear Security Administration
U.S. Department of Energy
Before the
Committee on House Armed Services
Subcommittee on Strategic Forces

March 12, 2008

Thank you for the opportunity to discuss the President's FY 2009 Budget Request for the National Nuclear Security Administration (NNSA). I want to thank all of the Members for their strong support for our vital national security missions.

In the eighth year of this Administration, with the support of Congress, NNSA has achieved a level of stability that is required for accomplishing our long-term missions. Our fundamental national security responsibilities for the United States include:

- assuring the safety, security and reliability of the U.S. nuclear weapons stockpile while at the same time considering options for transforming the stockpile and the complex infrastructure that supports it;
- reducing the threat posed by proliferation of nuclear weapons, material and expertise; and
- providing reliable and safe nuclear reactor propulsion systems for the U.S. Navy.

NNSA is examining how to proceed into the future to address evolving national security needs in a manner that anticipates significant changes in how we manage our national security programs, our assets and our people. To that end, the FY 2009 Budget Request for $9.1 billion, a decrease of $35 million from the FY 2008 Consolidated Appropriations Act, supports NNSA's crucial national security mission.

The FY 2009 request will go a long way toward making significant progress in many areas of focus, including those that we have embarked upon in FY 2008. NNSA anticipates that this request will enable the accomplishment of the following results:

- moving from a nuclear weapons complex to an integrated national security enterprise, including:
  - making decisions regarding transformation of the nuclear weapons complex based on the analyses in the Complex Transformation Supplemental Programmatic Environmental Impact Statement this year;
  - shrinking the size of the nuclear weapons complex and consolidating special nuclear material at fewer sites;
  - increasing funding for critical facilities, including an increase in funding for the preliminary design of the Uranium Processing Facility and Chemistry and Metallurgy Research Replacement facility over the amount provided in FY 2007;

  - increasing funding for cyber security by 22% over the amount provided in FY 2007; and
  - improving cost-savings associated with supply chain management, building upon nearly $5 million in savings in FY 2007.
- advancing nuclear nonproliferation and countering nuclear and radiological terrorism, including:
  - increasing the amount of funds provided directly to NNSA nonproliferation activities by 7% over the funding amount provided in FY 2007 (not including the Mixed Oxide (MOX) Fuel Fabrication Facility);
  - increasing funding provided to nuclear counter terrorism activities by 40% over the amount provided in FY 2007;
  - increasing the rate at which Highly Enriched Uranium and other radiological and source materials are secured as part of the Global Threat Reduction Initiative (GTRI) program by 14%; and
  - and continuing and completing activities under the Bratislava agreement with the Government of Russia.
- securing and maintaining an aging stockpile, including:
  - continuing our Defense Program's "Getting the Job Done" initiative by staying focused on delivering products to Department of Defense in a timely and cost-efficient manner;
  - increasing the number of weapon dismantlements by 26 percent over the number of weapons dismantled in FY 2007; and
  - addressing current and anticipated challenges associated with certifying the stockpile without requiring underground testing.
- expanding our technical excellence while developing the next generation of national security scientific, engineering and program management talent, including:
  - developing an expanded vision of the future role of our national laboratories in supporting NNSA's national security mission; and
  - expanding NNSA's efforts in nuclear nonproliferation, counterterrorism, forensics, and support to the intelligence community.

Weapons Activities

Nuclear weapons remain a cornerstone of our nation's strategic defense posture and will likely remain so throughout this century, even as we continue to reduce the size of our stockpile. Our nuclear deterrent stockpile remains safe, secure and reliable. The supporting infrastructure, however, is aged--many of our critical facilities are over 50 years old. Stockpile Stewardship is working and has been successful to date at finding and remedying the technical challenges facing our aging stockpile. Additionally, we continue to reduce the size of the stockpile to meet the President's mandate to have the smallest nuclear stockpile consistent with our national security objectives. As a result, today the stockpile is half of what it was in 2001, and by 2012, the United States will have the smallest stockpile since the 1950s. Additional reductions in the stockpile are possible, but these reductions will require changes to the weapons complex and the composition of the stockpile.

Our national security enterprise is a national asset and our weapons laboratories remain unrivaled as the pinnacle of American scientific, engineering and technical expertise. Development and maintenance of our nuclear deterrent force has made possible American leadership in nuclear nonproliferation, nuclear counterterrorism, advanced computing, and high-energy density physics. None of these programs would be possible at its current level without technical advances made by the weapons program. As we

continue transforming the infrastructure and maintaining our nuclear deterrent force into the 21st Century, our goal is to do so without jeopardizing the advancements in other vital NNSA national security programs made possible by our investment in weapon activities.

Let there be no doubt: today's nuclear weapons stockpile is safe, secure and reliable and has not required post-deployment nuclear testing to date, nor is nuclear testing anticipated or planned. However, while today's stockpile remains safe, secure and reliable, the weapons laboratories, the Department of Defense and the NNSA are concerned about our future ability to maintain the stockpile in the future. The Stockpile Stewardship Program has worked well, so far, to discover and resolve problems that in the past would have required nuclear testing. However, the collective judgment of the Directors of our national weapons laboratories is that maintaining certification of the finely-tuned designs of the aging Cold War stockpile through Life Extension Programs (LEPs) only, absent nuclear testing, necessarily entails increasing risk overtime. Although recent studies have placed the life of our plutonium pits at 85 to 100 years, other exotic materials used in our warheads degrade at different rates and many of their aging properties are still not well understood. The metallurgical and chemical issues we face with our aging warheads continue to be a technical challenge for our best scientists and the risk of catastrophic technical failure occurring as our warheads age cannot be ruled out absolutely. The one certainty we do know is that warhead certification in the absence of testing will become more difficult, especially as life extensions and component aging move the warhead further away from originally-tested designs.

After 9/11 we realized that the security threat to our nuclear warheads had fundamentally changed. The security features in today's stockpile are commensurate with technologies that were available during the Cold War and designed for with the threats anticipated at that time. Major enhancements in security are not easily available via retrofits in the life extension programs.

To understand the challenges facing our stockpile, an analogy is in order. Today's Mustang remains a high-performance automobile, has about the same dimensions and weighs only a few hundred pounds more than the first Mustangs, and has all the modern safety and security features we expect today—air bags, anti-lock brakes, GPS navigation, satellite radio, theft deterrent and alarm systems. The 1965 version had none of these features, not even seat belts! We deploy warheads today that have 1970-80's safety, security and anti-terrorism features. It does not mean that these warheads are not safe and secure, but we can do better and we should do better. Based on our initial assessments, I believe that the reliable replacement warhead concepts provide opportunities to incorporate the latest technological advances for precluding unauthorized use in a post-9/11 threat environment.

To address these challenges, the Administration has proposed two efforts to maintain the viability of the deterrent well into the 21st Century. The first of these is Complex Transformation. Our goal is to transform the large, costly and inefficient Cold War nuclear weapons complex that cannot meet the full production requirements of our customer into an integrated, modern and cost effective nuclear security enterprise. Complex Transformation involves more than just transforming an aging physical infrastructure; it seeks to transform our contracting and procurement processes and overall management of the enterprise to embrace the best in business and human capital practices. Complex Transformation also must be accomplished in a way that continues to leverage our core competencies in nuclear weapons design and maintenance to advance the Nation's leadership in counterterrorism,

nonproliferation, physical and cyber security, and to support the intelligence community. Our Complex Transformation strategy relies on four pillars:

- Transform the nuclear stockpile through the Stockpile Stewardship Program in partnership with the Department of Defense;
- Transform to a modernized, cost-effective nuclear weapons complex to support needed capabilities in our physical infrastructure;
- Create an integrated, interdependent enterprise that employs best business practices to maximize efficiency and minimize costs; and
- Advance the science and technology base that is the cornerstone of our nuclear deterrent forces and remains essential for long-term national security.

Infrastructure transformation is a major part of Complex Transformation. Some major facilities date back to the Manhattan Project and cannot cost effectively meet today's safety and security requirements. In other cases, new facilities are needed to restore capabilities that have been put in standby since the end of the Cold War but may be needed to support future life extension programs. With the support of Congress, we produced tritium in 2007 for the first time in 18 years and the Tritium Extraction Facility (TEF) at Savannah River is now on-line. Similarly, construction of the Highly Enriched Uranium Materials Facility (HEUMF) at the Y-12 National Security Complex in Oak Ridge will allow us to consolidate uranium storage and improve security with a significantly-reduced security footprint. And at Los Alamos National Laboratory, the Chemistry and Metallurgy Research Replacement (CMRR) project will allow us to continue the plutonium pit surveillance and actinide research vital to maintaining the stockpile and the nation's nuclear deterrent. These three projects are representative of a Complex Transformation that has already commenced.

Our plan for Complex Transformation, detailed in the draft Supplemental Programmatic Environmental Impact Statement (SPEIS), seeks to consolidate special nuclear material at fewer sites and locations within the nuclear weapons complex, close or transfer hundreds of buildings that are no longer required for the NNSA mission, and reduce NNSA's overall footprint by as much as a third over the next ten years. By eliminating multi-site redundancies and consolidating both missions and capabilities at our sites, we expect to dramatically improve our efficiency and cost effectiveness.

The second effort we believe is necessary to maintain the viability of the nuclear deterrent well into the 21st Century involves continued study of reliable replacement concepts. We believe continued work on these concepts is necessary in order to allow the next Administration and Congress to make informed decisions regarding the future composition of the stockpile. Continued study of reliable replacement concepts has been identified by U.S. Strategic Command, the Navy and the Air Force as essential to long-term maintenance of an effective nuclear deterrent force. These concepts, coupled with a responsive nuclear infrastructure, offers promise for further reductions in reserve warheads maintained as a hedge against technical failure. These concepts are specifically envisioned to address long term reliability issues that can affect our existing stockpile resulting from component aging, and refurbishment of aging components, that move us further from the original designs validated by underground nuclear testing. In short, we believe these concepts could provide a means to mitigate the technical risks inherent in a life extension-only approach. Moreover, reliable replacement concepts would not add new military capabilities to the stockpile, and would introduce safety, surety and anti-terrorism features that cannot easily be retrofitted into the current stockpile.

In our efforts to advance Complex Transformation and examine the potential promise of reliable replacement concepts, we have not lost focus on meeting our day-to-day commitments to the Department of Defense (DoD). Last year, we reconstituted a limited plutonium pit manufacturing capability and produced new pits for the W88 warhead, and maintained on-time delivery of the LEP B61 weapons to the Air Force. In FY 2008, the Department will continue to manufacture W88 pits, maintain a limited pit manufacturing capability of six pits per year.

Meeting the needs of DoD, maintaining the safety, security and reliability of the stockpile, and commencing Complex Transformation would not be possible without the support of our dedicated federal and contactor workforce of 37,000 employees. Retaining our current work force and attracting the next generation of national security scientific and engineering talent is challenging because the number of qualified university graduates continues to decrease each year.

The scientific capabilities and infrastructure developed for the nuclear weapons mission are utilized by DoD, the Department of Homeland Security, and the intelligence community, are recognized as essential to fulfilling their responsibilities. NNSA laboratories have been participating jointly with other government agencies in addressing a wide range of national security challenges—all of which leverage the core mission of nuclear weapons development and sustainability. Recent examples include:

- Supporting war fighter needs in Iraq with improvised explosive device (IED) modeling and analysis;
- Supporting DoD and the Federal Bureau of Investigation in nuclear weapons emergency render-safe and post-event technical forensics;
- Providing solutions to the intelligence community in their nuclear counterterrorism and nonproliferation efforts by drawing upon our nuclear weapons expertise;
- Developing and deploying integrated systems for countering aerosolized bioterrorist releases and bio-decontamination technologies; and
- Developing and deploying portal detector technology to prevent smuggling of special nuclear material.

Basic research at our national security laboratories has provided technology for airborne detection of toxic chemicals, critical infrastructure modeling for disaster response, and modeling of response strategies for potential influenza pandemics.

It is important to recognize that certain major capabilities are needed at each of our national security laboratories if they are to continue to effectively contribute to national security. By leveraging the science that gave us the atomic bomb that helped win World War II and the technical innovations that helped win the Cold War, today's national security labs are tackling tomorrow's national security challenges. Maintaining a core scientific and technical base at our labs will continue to attract outstanding talent to meet our future national security challenges.

Weapons Activities also provides tangible support to nuclear nonproliferation objectives. A major priority within Defense Programs has been weapons dismantlement. The United States remains committed to its obligations under the Nuclear Nonproliferation Treaty (NPT). In 2004, the President directed a 50 percent reduction in the size of the stockpile, and, in December 2007, he ordered an

additional 15 percent cut. The result will be a nuclear stockpile one quarter the size it was at the end of the Cold War and the smallest since the Eisenhower Administration. During FY 2007, DOE achieved a 146 percent increase in the rate of nuclear weapon dismantlement over the FY 2006 rate, almost tripling our goal of a 49 percent rate increase.

Defense Nuclear Nonproliferation

The possibility that rogue states or terrorists might acquire nuclear and other weapons of mass destruction (WMD) and their related technologies, equipment and expertise, poses one of the most serious threats to the United States and international security. The continued pursuit of nuclear weapons by terrorists and states of concern underscores the urgency of NNSA's efforts to secure vulnerable nuclear weapons and weapons-usable nuclear material, to detect and interdict nuclear and radiological materials and WMD-related equipment, to halt the production of fissile material for weapons, to dispose of surplus weapons-usable material, and to contain the proliferation of WMD technical expertise. The FY 2009 Budget Request will enable NNSA to continue these critical activities that support threat reduction initiatives vital to U.S. national security.

Preventing access to nuclear weapons and fissile material has many dimensions. Our highest priority is to keep these dangerous materials out of the hands of the world's most dangerous actors. Absent access to a sufficient quantity of essential fissile materials, there can be no nuclear weapon. The most direct way to prevent acquisition of nuclear weapons is by denying access to fissile material. Historically, much of our materials security emphasis focused on Russia because that is where most of the poorly secured material was located. We have made remarkable progress cooperating with Russia to strengthen protection, control, and accounting of its nuclear weapons and materials. We recently completed security upgrades at 25 Russian Strategic Rocket Force sites and will meet our commitment to conclude agreed-to security upgrade activities at Russian nuclear sites by the end of this year, as provided for under the Bratislava Joint Statement signed by Presidents Bush and Putin. Although these direct upgrade efforts are largely drawing to a close after over a decade of work, we will continue security upgrade work at some sites added to our work scope after the Bratislava summit, and will continue to work cooperatively with Russia to ensure the long-term sustainability of the systems and procedures already implemented. We recently reached agreement with Russia on a sustainability plan that identifies the requirements for long-term Russian maintenance and infrastructure of security upgrades under our cooperative program.

However, not all nuclear material of proliferation concern is located in Russia. We are also working with other partners to secure weapons-usable nuclear materials in other parts of the world, and to strengthen security at civil nuclear and radiological facilities. One area of particular concern is research reactors, which often use highly enriched uranium (HEU) fuel otherwise suitable for bombs. Our Global Threat Reduction Initiative (GTRI) converts research reactors around the world from HEU to low enriched uranium (LEU) fuel. The GTRI program, and its antecedents, have removed approximately 68 nuclear bombs' worth of highly enriched uranium and secured more than 600 radiological sites around the world, collectively containing over 9 million curies, enough radiation for approximately 8,500 dirty bombs. In the United States the GTRI program has removed over 16,000 at-risk radiological sources, totaling more than 175,000 curies—enough for more than 370 dirty bombs.

An additional nuclear security challenge concerns the effectiveness and credibility of international nuclear safeguards. Against the backdrop of growing nuclear energy demand, concerns over the

diffusion of sensitive nuclear technologies, and the challenges posed by Iran and North Korea, international safeguards are coming under increasing strain. To address this challenge, NNSA has launched the Next Generation Safeguards Initiative (NGSI), which will ensure U.S. leadership and investment in our technologies and experts in the service of nuclear nonproliferation. Enhanced and revitalized international safeguards will also help ensure the sustainability of the gains made by our associated threat reduction efforts.

Additionally, in FY2009, we will continue to lead the U.S. Government efforts to oversee the disablement and dismantlement of North Korea's nuclear program. However, in order to continue our support for these critical disablement and dismantlement activities, we will require a waiver of the Glenn Amendment restrictions that were triggered by North Korea's 2006 nuclear test, as well as more substantial funding. The Glenn Amendment prohibits the Department of Energy, which would otherwise fund denuclearization activities, from providing any financial assistance to North Korea. Without this waiver, the Department will be unable to complete Phase Three denuclearization activities. NNSA and the Administration have been working to insert language into the FY 2008 Iraq War Supplemental, or any other appropriate legislative vehicle, to provide such a waiver.

We are also taking aggressive steps to interdict illicit transfers of weapons-usable nuclear materials and equipment, and to prevent dissemination of related sensitive nuclear technology via strengthened export controls and cooperation. We currently provide export control and commodity identification training to over 50 countries across the globe, in order to improve nations' capabilities to deter and interdict illicit WMD-related technology transfers. As an important complement to physical security improvements, the Second Line of Defense Program enhances our foreign partners' ability to interdict illicit trafficking in nuclear materials through the deployment of radiation detection systems at high-risk land-border crossings, airports and seaports. These efforts increase the likelihood of interdicting illicit nuclear materials entering or leaving the country. To date, 117 Russian border crossings have been equipped with radiation detection equipment under this program.

As part of the Second Line of Defense, the Megaports Initiative, established in 2003, responds to concerns that terrorists could use the global maritime shipping network to smuggle fissile materials or warheads. By installing radiation detection systems at major seaports throughout the world, this initiative strengthens the detection and interdiction capabilities of our partner countries. At the end of 2007, the Megaports program was operational in 12 countries and being implemented at 17 additional ports. In addition, we continue to carry out nonproliferation research and development activities, developing, demonstrating and delivering novel nuclear material and nuclear detonation detection technologies for nonproliferation and homeland security applications.

Since the end of the Cold War, the nation's adversaries have been quick to adapt to technological improvements. Staying ahead of the R&D curve is critically important to keeping our nation safe and secure. As the principal federal sponsor of long-term nuclear nonproliferation-related research and development, NNSA focuses its R&D investments on leading-edge, early stage basic and applied R&D programs, including testing and evaluation, which lead to prototype development and improvements in nuclear detection and characterization systems. By concentrating on these key R&D components, NNSA helps strengthen the U.S. response to current and projected WMD threats.

These critical steps are only part of a comprehensive nonproliferation program. In addition to these efforts to secure, detect, and interdict weapons-usable materials, we also work to eliminate weapons-

usable material. Indeed, there remains enough fissile material in the world today for tens of thousands of weapons. An integral part of our strategy, therefore, has been to encourage other states to stop producing materials for nuclear weapons, as the United States itself did many years ago. For example, Russia still produces weapons-grade plutonium, not because it needs it for weapons, but because the reactors that produce it also supply heat and electricity to local communities. We are helping to replace these non-commercial style reactors with fossil fuel plants, thereby eliminating their production of plutonium. This year two of the remaining three plutonium-producing reactors in Russia will shut down permanently at Seversk, six months ahead of schedule, and the third at Zheleznogorsk will shut down in December 2010, if not, as we hope, sooner.

As previously indicated, there are a number of effective synergies between NNSA's defense activities and our nuclear nonproliferation objectives. For example, we are disposing of the substantial quantities of surplus weapons grade HEU that has resulted from the thousands of warheads we have dismantled, by downblending it to lower enrichment levels suitable for use in commercial reactors. This past February marked the 15th anniversary of the U.S.-Russia HEU Purchase Agreement—one of the most successful nonproliferation programs ever conceived. Under the HEU Purchase Agreement, over 322 metric tons of uranium from Russia's dismantled nuclear weapons—enough material for more than 12,000 nuclear weapons—has been downblended for use in commercial power reactors in the United States. Nuclear power generates twenty percent of all American electricity, and half of that is generated by fuel derived from Russian HEU. As a result, one-tenth of U.S. electricity is made possible by material removed from former Soviet nuclear weapons.

Similarly, disposition of surplus U.S. HEU through downblending to low-enriched uranium has been proceeding for nearly a decade and progress is continuing. As of the end of December 2007, approximately 92 metric tons of HEU, equivalent to over 2,000 nuclear weapons, have been downblended and converted to power or research reactor fuel, and an additional 13 metric tons have been delivered to disposition facilities for near-term downblending. This HEU disposition progress has already contributed substantially to nuclear material consolidation efforts in the Department of Energy complex, eliminating the necessity for high security storage at two sites, and greatly reducing it at several others.

In addition to the efforts on HEU, the United States and Russia have each committed to dispose of 34 metric tons of surplus weapon-grade plutonium. In November 2007, we signed a joint statement with Russia that represents a technically and financially credible plan to dispose of 34 metric tons of Russia's surplus plutonium in fast reactors. Under this approach, Russia will pay for the majority of costs and begin disposing of its surplus plutonium in the 2012 timeframe. Last year, the Department of Energy began construction of a Mixed Oxide Fuel Fabrication Facility at the Savannah River Site. The facility originally planned to dispose of 34 metric tons of surplus weapon-grade plutonium by converting it into mixed oxide (MOX) fuel to be irradiated in commercial nuclear reactors, producing electricity and rendering the plutonium undesirable for weapons use. Last September, at the IAEA General Conference in Vienna, Secretary Bodman announced that an additional 9 metric tons of plutonium, enough to make 2000 nuclear weapons, would be removed from such use and eliminated by conversion to mixed oxide fuel. The MOX facility is a critical component of the Department's surplus plutonium consolidation efforts and is essential to the goal of transforming the complex.

Our efforts at home are not enough, in and of themselves. We need cooperation from our international partners as well, and if we are to encourage responsible international actions, the United States must set

the example. We have dramatically improved physical security of U.S. nuclear weapons and weapons-usable materials in the years since the September 11th attacks. We have made substantial reductions in our stockpile and made additional plutonium available for conversion into civilian reactor fuel. Additionally our Complex Transformation will further reduce the number of sites and locations where we store special nuclear materials, providing for improved security of these materials.

The risk of nuclear terrorism is not limited to the United States. The success of our efforts to deny access to nuclear weapons and material is very much dependent on whether our foreign partners similarly recognize the threat and help us to combat it. To this end, we undertake efforts to strengthen the nonproliferation regime and expand international nonproliferation efforts. We continue to provide technical and policy support to U.S. efforts within the nonproliferation regime, including support to the Nuclear Nonproliferation Treaty, the Nuclear Suppliers Group, the International Atomic Energy Agency and a wide range of U.S. diplomatic initiatives, including the efforts in North Korea. We also have strengthened international collaboration and dialogue on nonproliferation efforts, including developing an international mechanism through which seven countries have pledged some $45 million in contributions to our nonproliferation programs.

In July 2006, Presidents Bush and Putin announced the Global Initiative to Combat Nuclear Terrorism to strengthen cooperation worldwide on nuclear materials security and to prevent terrorist acts involving nuclear or radioactive substances. By the end of 2007, 64 nations had joined this Global Initiative, and a number of subject matter expert conferences and training activities have been conducted. Most recently in December 2007, representatives from 15 nations participated in Global Initiative to Combat Nuclear Terrorism Radiation Emergency Response workshop held in China by the NNSA. Paired with UN Security Council Resolution 1540 and working closely with our overseas partners, we now have both the legal mandate and the practical means necessary for concrete actions to secure nuclear material against the threat of diversion.

Naval Reactors

Also contributing to the Department's national security mission is the Naval Reactors Program, whose mission is to provide the U.S. Navy with safe, militarily effective nuclear propulsion plants and ensure their continued safe, reliable and long-lived operation. Nuclear propulsion enhances our warship capabilities by providing the ability to sprint where needed and arrive on station, ready to conduct sustained combat operations when America's interests are threatened. Nuclear propulsion plays a vital role in ensuring the Navy's forward presence and its ability to project power anywhere in the world.

The Naval Reactors Program has a broad mandate, maintaining responsibility for nuclear propulsion from cradle to grave. Over 40 percent of the Navy's major combatants are nuclear-powered, including aircraft carriers, attack submarines, guided missile submarines, and strategic submarines, which provide the Nation's most survivable deterrent force.

FY09 Budget Request Programmatic Detail

The President's FY 2009 Budget Request for NNSA totals $9.1 billion, a decrease of $35.0 million or 0.4 percent less than the FY 2008 Consolidated Appropriations level. We are managing our program activities within a disciplined five-year budget and planning envelope, and are successfully balancing the Administration's high priority initiatives to reduce global nuclear danger as well as future planning for the Nation's nuclear weapons complex within an overall modest growth rate.

The NNSA budget justification contains information for five years as required by Sec. 3253 of P.L. 106-065, the National Defense Authorization Act for Fiscal Year 2000. This section, entitled *Future-Years Nuclear Security Program*, requires the Administrator to submit to Congress each year the estimated expenditures necessary to support the programs, projects and activities of the NNSA for a five-year fiscal period, in a level of detail comparable to that contained in the budget.

The FY 2009-2013 Future Years Nuclear Security Program -- FYNSP -- projects $47.7 billion for NNSA programs though 2013. This is a decrease of about $2.3 billion over last year's projections. The FY 2009 request is slightly smaller than last year's projection; however, the outyears increase starting in FY 2010.

WEAPONS ACTIVITIES

Defense Programs

The FY 2009 Budget Request for the programs funded within the Weapons Activities Appropriation is $6.62 billion, an approximately 5.1 percent increase over the FY 2008 Consolidated Appropriations level. It is allocated to adequately provide for the safety, security, and reliability of the nuclear weapons stockpile and supporting facilities and capabilities.

Directed Stockpile Work (DSW) activities ensure the operational readiness of the nuclear weapons in the nation's stockpile through maintenance, evaluation, refurbishment, reliability assessment, weapon dismantlement and disposal, research, development, and certification activities. The FY 2009 request is organized by Life Extension Programs, Stockpile Systems, Reliable Replacement Warhead, Weapons Dismantlement and Disposition, and Stockpile Services. The request places a high priority on accomplishing the near-term workload and supporting technologies for the stockpile along with long-term science and technology investments to ensure the capability and capacity to support ongoing missions.

The FY 2008 Consolidated Appropriations Act did not contain funding for the Reliable Replacement Warhead (RRW). The Administration believes that the characteristic features of the RRW are the right ones for ensuring the future of our Nation's nuclear deterrent force. The FY 2009 request includes $10 million to continue the design definition and cost study. The request also continues efforts called out in the Explanatory Statement referenced in Section 4 of Public Law 110-161 to address issues raised in the recent JASON's summer study of the feasibility of certifying RRW designs without nuclear testing.

Campaigns are focused on scientific and technical efforts essential for the certification, maintenance and life extension of the stockpile. The Stockpile Stewardship Program has allowed NNSA to maintain the

moratorium on underground testing and move to "science-based" certification and assessments for stewardship by relying on experiments, modeling, simulation, surveillance and historical underground nuclear testing experience. The Science and Engineering Campaigns are focused to provide the basic scientific understanding and the technologies required for the directed stockpile workload and the completion of new scientific and experimental facilities. In the Inertial Confinement Fusion Ignition and High Yield Campaign, the National Ignition Facility (NIF) will focus on completing the first experiment on NIF with a credible chance of demonstrating laboratory-scale ignition in 2010. The Advanced Simulation and Computing Campaign will continue to improve capabilities through development of faster computational platforms in partnership with private industry, and with state of the art techniques for calculations, modeling and simulation, and analysis of highly complex weapons physics information. The Readiness Campaign consists of technology-based efforts to reestablish and enhance manufacturing and other capabilities needed to meet planned weapon component production.

The FY 2009 request makes several changes in the location of programs within Weapons Activities. The Pit Manufacturing and Certification Campaign recently concluded with the successful manufacturing and certification of the W88 pit. Pit manufacturing related activities are moved to the Direct Stockpile Work Stockpile Services program and pit certification activities are transferred to the Science Campaign. In addition, in the Science Campaign, the Advanced Certification program will continue efforts begun in FY 2008 at the direction of the Congress to review, evaluate and implement key recommendations from the JASON's RRW study regarding approaches to establishing an accredited warhead certification plan without nuclear testing. Work being performed to understand potential improvised nuclear device designs and responses is being transferred to the nuclear weapons incident response account.

Secure Transportation Asset

The Secure Transportation Asset's FY 2009 Budget Request is an increase of $9.5 million to $221.1 million. This funding request supports the increase to transportation capacity necessary for the dismantlement of nuclear weapons, departmental initiatives to consolidate and disposition nuclear material, and the implementation of the current operational doctrine to protect nuclear weapons and material in transport.

Readiness in Technical Base and Facilities (RTBF) and Facilities and Infrastructure Recapitalization Program (FIRP)

In FY 2009, we are requesting $1.89 billion for the maintenance and operation of existing facilities, remediation and disposition of excess facilities, and construction of new facilities. Of this amount, $1.72 billion is requested for RTBF, an increase of $83.1 million from FY 2008 operating levels, with $1.41 billion reserved for Operations and Maintenance. The Operations and Maintenance portion also includes the Institutional Site Support program which supports facility transition and capability consolidation. The request includes $308.0 million for RTBF Construction.

This request also includes $169.5 million for the Facilities and Infrastructure Recapitalization Program (FIRP), a separate and distinct program that is complementary to the ongoing RTBF efforts. The FIRP mission, which we expect to be completed in FY 2013, is to restore, rebuild and revitalize the physical infrastructure of the nuclear weapons complex, in partnership with RTBF. This program assures that

facilities and infrastructure are restored to an appropriate condition to support the mission, and to institutionalize responsible and accountable facility management practices. The Integrated Prioritized Project List (IPPL) is the vehicle that FIRP will rely on to prioritize and fund outyear projects to reduce legacy deferred maintenance. These projects significantly reduce the deferred maintenance backlog to acceptable levels and support the Stockpile Stewardship mission and transformation of the complex.

This request also includes $77.4 million for the newly established Transformation Disposition (TD) Program. TD is NNSA's facility and infrastructure (F&I) retirement program for old, Cold War-era structures. The NNSA owns over 35 million gross square feet of footprint and over 25% of the footprint may become excess as a result of complex transformation. TD is established with the goal of reducing non-process and contaminated excess F&I. This includes facilities that are excess to current and future NNSA mission requirements, including those contaminated structures which are not currently the responsibility of the Office of Environmental Management. This program supports the performance measure of reducing the total square feet, improves management of the NNSA facilities and infrastructure portfolio, and reduces long-term costs and risks. The TD Program will set the groundwork for a smaller complex.

All of these activities are critical for the development of a more responsive infrastructure and will be guided by decisions based on the Complex Transformation Supplemental Programmatic Environmental Impact Statement (SPEIS) and other factors such as funding and national security requirements. Since a significant fraction of our production capability resides in World War II era facilities, infrastructure modernization, consolidation, and sizing consistent with future needs is essential for an economically sustainable Complex. Facilities designed according to modern manufacturing, safety, and security principles will be more cost-effective and responsive to future requirements. For example, a facility could be designed to support a low baseline capacity and preserve the option, with a limited amount of contingency space to augment capacity, if authorized and needed, to respond to future needs.

Having a reliable plutonium capability is a major objective of NNSA planning and is a key requirement if the nation is to maintain an effective deterrent, regardless of the composition of the stockpile. Options for plutonium research, surveillance, and pit production are being evaluated as part of the Complex Transformation NEPA process, with a decision anticipated in 2008. The preferred alternative in the draft Complex Transformation SPEIS proposes that Los Alamos National Laboratory facilities at Technical Area 55 (TA-55) provide plutonium research, surveillance and pit production capabilities. This alternative includes the proposed Chemistry and Metallurgy Research Replacement – Nuclear Facility (CMRR-NF) to achieve the objectives of (1) closing the aging existing Chemistry and Metallurgy Research (CMR) facility, (2) replacing essential plutonium surveillance and research capabilities currently at Lawrence Livermore National Laboratory and those being conducted in Plutonium Facility 4 (PF-4) in TA-55, and (3) achieving a net manufacturing capacity of 50 – 80 pits per year by allowing surveillance activities now occurring in PF-4 to be conducted in CMRR.

Completion of the Highly Enriched Uranium Materials Facility (HEUMF) would allow a reduction of the overall size of the high security area at the Y-12 National Security Complex. If NNSA ultimately decides to build a Uranium Processing Facility (UPF) at Y-12, then Y-12's high security area would be reduced from 150 acres to 15 acres. This reduction combined with the engineered security features of the HEUMF and UPF, would allow NNSA to meet the Design Basis Threat (DBT) at significantly

reduced costs, to lower non-security costs, and to provide a responsive highly enriched uranium manufacturing capability.

Environmental Projects and Operations

The Environmental Projects and Operations/Long-Term Stewardship Program is requested at $40.6 million in FY 2009. This program serves to reduce the risks to human health and the environment at NNSA sites and adjacent areas by: operating and maintaining environmental clean-up systems; performing long-term environmental monitoring activities; and integrating a responsible environmental stewardship program with the NNSA mission activities. The increase in this program is necessary to continue compliance with statutory requirements and to provide Long-Term Stewardship activities for two additional NNSA sites.

Nuclear Weapons Incident Response

The Nuclear Weapons Incident Response (NWIR) Program serves as the United States' primary capability for responding to and mitigating nuclear and radiological incidents worldwide. The FY 2009 Request for these activities is $221.9 million, of which $31.7 million is dedicated to the continued implementation of two national security initiatives that will strengthen the Nation's emergency response capabilities—the National Technical Nuclear Forensics (NTNF) and the Stabilization Implementation programs.

The NTNF program will continue the development of capabilities to support pre- and post-detonation activities and enhance technical nuclear forensics capabilities. The continued development of this capability will facilitate the thorough analysis and characterization of pre- and post-detonation radiological and nuclear materials and devices, including devices used in nuclear detonations as well as interdicted devices. Developing forensic capabilities of this nature is crucial to the overall objective of identifying the origin and pathways of interdicted nuclear materials, warheads and improvised nuclear devices.

Stabilization is a capability aimed at using advanced technologies to enhance the U.S. Government's ability to interdict, delay and/or prevent operation of a terrorist's radiological or nuclear device until national assets arrive on the scene to conduct traditional "render safe" procedures. NNSA has actively sponsored new research in this area and, additionally, continues to leverage emerging technologies that have been demonstrated successfully by the DoD in support of the global war on terrorism. In the implementation phase, NNSA will transfer these matured projects into operational testing to selected teams across the country, potentially followed by their transition into the collection of tools available to Federal response teams.

Physical and Cyber Security

The FY 2009 Budget Request for Defense Nuclear Security is $737.3 million, a 7.7 percent decrease from the FY 2008 appropriation. The FY 2009 request supports the base program and the program's focus on sustaining the NNSA sites 2003 Design Basis Threat baseline operations and implementing the 2005 DBT Policy upgrades with the Nevada Test Site reaching compliance in FY 2009. Starting in FY 2009, there is no longer an offset in this account or in the Departmental Administration account for the

security charges associated with reimbursable work. These activities will be fully funded by the programs with direct appropriations.

During FY 2009, the program will focus on eliminating or mitigating identified vulnerabilities across the weapons complex. Measures will include additional protective force training, acquiring updated weapons and support equipment, improving physical barrier systems and standoff distances, and reducing the number of locations with "targets of interest." Physical security systems will be upgraded and deployed to enhance detection and assessment, add delay and denial capabilities, and to improve perimeter defenses at several key sites. There are no new construction starts.

The FY 2009 Budget Request for Cyber Security is $122.5 million, an 11 percent increase from the FY 2008 appropriation. The FY 2009 Budget Request is focused on sustaining the NNSA infrastructure and upgrading elements designed to counter cyber threats and vulnerabilities from external and internal attacks. This funding level will support cyber security revitalization, enhancements in assets and configuration management, and identify emerging issues, including research needs related to computer security, privacy, and cryptography.

Additionally, the Cyber Security funding will provide for enhancement, certification, and accreditation of unclassified and classified computer systems to ensure the proper documentation of risks and justification of associated operations for systems at all sites. The funding within this request will also be applied to foster greater cyber security awareness among Federal and contractor personnel. NNSA will sponsor a wide range of educational initiatives to ensure that our workforce possesses the ever-expanding cyber security skills critical to safeguarding our national security information. Funding provided to NNSA sites will be conditioned upon their implementation of a risk-based approach to cyber security management and policy.

DEFENSE NUCLEAR NONPROLIFERATION

The Defense Nuclear Nonproliferation Program mission is to detect, prevent, and reverse the proliferation of weapons of mass destruction (WMD). Our nonproliferation programs address the threat that hostile nations or terrorist groups may acquire weapons-usable material, equipment or technology, or WMD capabilities. The Administration's FY 2009 request totals $1.247 billion for this program, reflecting a return to measured growth from the FY 2007 appropriation level, but a decrease from the final FY 2008 appropriation, which included a large Congressional plus-up over the President's request. The decrease also reflects Congressional action to transfer funding for some construction projects to other budget accounts, and the anticipated decrease of other major construction activities under the Elimination of Weapons Grade Plutonium Production Program in 2008, following completion of major elements of that program's work scope.

Global Threat Reduction Initiative

The FY 2009 Request of $220 million for the Global Threat Reduction Initiative (GTRI) is an increase of $27 million over the FY 2008 operating plan. This funding will support GTRI's mission to reduce and protect vulnerable nuclear and radiological materials at civilian sites worldwide by converting reactors from HEU to LEU, removing excess nuclear/radiological materials, and protecting high priority nuclear/radiological material from theft and sabotage. Specific increases in the GTRI budget reflect an

acceleration of (1) Bratislava efforts to repatriate Russian-origin HEU and convert HEU reactors to LEU; (2) efforts to develop a new ultra-high density LEU fuel needed to convert 28 high performance reactors around the world; (3) the removal of nuclear materials not covered under other existing programs; and (4) security upgrades on high priority HEU and radioactive materials located in the United States.

International Material Protection and Cooperation

NNSA's International Material Protection and Cooperation FY 2009 Budget Request of $429.7 million represents a decrease of $194.8 million from the FY 2008 appropriated level. This large decrease reflects: (1) the anticipated completion of major elements of nuclear security upgrade work performed under the Bratislava Agreement; (2) completion of the majority of nuclear security upgrades in countries outside of Russia; and (3) large Congressional increases for this work over the President's FY 2008 budget request. During the past 15 years, the Material Protection Control and Accounting (MPC&A) program has secured 85 percent of Russian nuclear weapons sites of concern, and work is underway to complete this work by the end of FY 2008. To maintain this progress, MPC&A and Rosatom have developed a new joint plan identifying elements required for Rosatom's long-term sustainability of U.S.-installed security enhancements. In FY 2009, international material protection activities will focus on the continued enhancement of Russia's capability to operate and maintain U.S.-funded security improvements in the long-term. The MPC&A Program is also focused on reducing proliferation risks by converting Russian HEU to LEU and by consolidating weapons-usable nuclear material into fewer, more secure locations. In FY 2009, we will eliminate an additional 1.4 metric tons of Russian HEU for a cumulative total of 12.4 metric tons.

Our Second Line of Defense (SLD) Program installs radiation detection equipment at key transit and border crossings, airports and major seaports to deter, detect and interdict illicit trafficking in nuclear and radioactive materials. The SLD Core Program, which installs radiation detection equipment at borders, airports, and strategic feeder ports, has equipped 117 sites in Russia. The U.S. and Russia have agreed to jointly fund work to equip all of Russia's border crossings with radiation detection equipment by the end of 2011, six years ahead of schedule. The Core Program has also equipped 33 sites outside of Russia with radiation detection systems. The SLD Megaports Initiative has deployed radiation detection and cargo scanning equipment at 12 ports to date in the Netherlands, Greece, Bahamas, Sri Lanka, Singapore, Spain, the Philippines, Belgium, Honduras, Pakistan, the United Kingdom, and Israel. Various stages of implementation are underway at ports in 16 other locations.

During FY 2009, the SLD Core Program is planning to complete an additional 49 sites. The SLD Megaports Initiative plans to complete work at nine key ports in FY 2009 in Israel, Jordan, Spain, Mexico, China, the United Arab Emirates, Saudi Arabia, Oman, and Taiwan. We will continue progress on separate ports in Spain and Mexico, and will initiate new work in FY 2009 at ports in Argentina, Brazil, and Malaysia. The Megaports program is also pursuing outreach activities in northeastern Africa and other key regions of concern. FY 2009 funding will also support the procurement of Advanced Spectroscopic Portals (ASP) and mobile detection systems, including Mobile Radiation Detection & Identification Systems (MRDIS) and Radiation Detection Straddle Carriers (RDSC). The Megaports Initiative also works closely with the U.S. Department of Homeland Security's Bureau of U.S. Customs and Border Protection (CBP) by making technical resources available to complement the Container Security Initiative (CSI) and the Secure Freight Initiative (SFI) at international ports. Under SFI, all

U.S.-bound containers are being scanned at three ports in Pakistan, Honduras, and the United Kingdom, fulfilling the 2006 SAFE Ports Act to couple non-intrusive imaging equipment and radiation detection equipment in order to demonstrate the effectiveness of 100 percent scanning of U.S.-bound containers. SLD Megaports has also partnered with CBP at four, limited capacity SFI locations in Hong Kong, Oman, Korea, and Singapore. The Megaports Initiative is installing radiation detection equipment at all CSI ports and has worked with CBP to pursue, where feasible, joint agreements with host nations to implement both the Megaports and SFI programs.

Nonproliferation and International Security

The Nonproliferation and International Security (NIS) mission is to prevent, mitigate, and reverse WMD proliferation by providing policy and technical support to strengthen international nonproliferation regimes, institutions, and arrangements; promote foreign compliance with nonproliferation norms and commitments; and eliminate or reduce proliferation programs and stockpiles. Major NIS strategic priorities in FY 2009 include supporting the safe and secure expansion of nuclear energy use and disablement, dismantlement, and verification of nuclear programs in North Korea. NIS will also support the Next Generation Safeguards Initiative (NGSI) to strengthen international safeguards, revitalize the U.S. technical and human resource base that supports them, and develop the tools, approaches, and authorities needed by the International Atomic Energy Agency to fulfill its mandate far into the future.

In FY 2009, NIS also will confirm the permanent elimination from the Russian weapons stockpile of 30 metric tons of HEU; control the export of items and technology useful for WMD programs; continue an augmented export control cooperation program involving emerging suppliers and high-traffic transit states; break up proliferation networks and improve multilateral export control guidelines; develop and implement policy in support of global nonproliferation regimes; train 2,500 international and domestic experts in nonproliferation; provide technical expertise to the USG to support various WMD interdiction activities; develop and implement transparency measures to ensure that nuclear materials are secure; transition 300 Russian and FSU WMD experts to long-term private sector jobs; and make the preparations necessary for the USG's $50 million contribution to the International Atomic Energy Agency for the establishment of the International Nuclear Fuel Bank – an international effort to establish a back-up nuclear fuel supply for peaceful uses.

Elimination of Weapons Grade Plutonium Production

Turning to programs that focus on halting the production of nuclear materials, the Elimination of Weapons Grade Plutonium Production (EWGPP) Program is working towards completing the permanent shutdown of the three remaining weapons-grade plutonium production reactors in Seversk and Zheleznogorsk, Russia. The FY 2009 Budget request of $141 million reflects a decrease of $38 million from the FY 2008 level, following the planned completion in December 2008 of the fossil fuel plant at Seversk. The budget profile provides the funding required to replace the heat and electricity these reactors would otherwise supply to local communities with energy generated by fossil fuel, permitting the Russians to permanently shut down these reactors by December 2008 in Seversk and no later than December 2010 in Zheleznogorsk. This construction activity thus leads to the elimination of more than one metric ton of weapons-grade plutonium production per year.

Fissile Materials Disposition

The Fissile Materials Disposition program request for FY 2009 is $41.8 million. The program retains three principal elements: efforts to dispose of U.S. highly enriched uranium (HEU) declared surplus to defense needs primarily by down-blending it into low enriched uranium; technical analyses and support to negotiations involving the United States, Russia, and the International Atomic Energy Agency (IAEA) on monitoring and inspection procedures under the 2000 U.S.-Russia plutonium disposition agreement; and limited support for the early disposition of Russia's plutonium in that country's BN-600 fast reactor including U.S. technical support for work in Russia for disposition of Russian weapon-grade plutonium in fast reactors generally.

The FY 2008 Consolidated Appropriations Act (P.L. 110-161) appropriated funding for the Mixed Oxide Fuel (MOX) Fabrication Facility Project in South Carolina in the Department of Energy's Office of Nuclear Energy account and funding for the related Pit Disassembly and Conversion Facility/Waste Solidification Building projects in the NNSA Weapons Activities account. These projects remain important components of the nation's nuclear nonproliferation efforts. In total, the funding commitment to the Department of Energy's nonproliferation activities is $1.853 billion in 2009. The MOX project is a key component of the U.S. strategy for plutonium disposition. It is the centerpiece of a comprehensive approach for disposing of surplus weapons-usable plutonium by fabricating it into mixed-oxide fuel for irradiation in existing nuclear reactors. This meets key national security and nonproliferation objectives by converting the plutonium into forms not readily usable for weapons and supports efforts to consolidate nuclear materials throughout the weapons complex.

In addition to its role in the disposition of excess nuclear materials at home, the U. S. views the MOX project as a key component of U.S. global nuclear nonproliferation efforts in which fissile material disposition is the final step in a balanced nuclear nonproliferation strategy aimed at employing measures necessary to detect, secure, and dispose of dangerous nuclear material. In 2007, the U.S. and Russian governments agreed on a framework for a technically and financially credible Russian plutonium disposition program based on the irradiation of plutonium as MOX fuel in fast reactors. When all required steps have taken for implementation, it will enable the U.S. and Russia to meet their commitments under a 2000 agreement to dispose of a combined total of 68 metric tons of surplus weapon-grade plutonium—enough material for approximately over 4,000 nuclear weapons.

This budget request also seeks funding to dispose of surplus U.S. HEU, including downblending 17.4 metric tons of HEU to establish the Reliable Fuel Supply, which would be available to countries with good nonproliferation credentials that face a disruption in supply that cannot be corrected through normal commercial means. This initiative marks an important first step creating a reliable nuclear fuel mechanism that could provide countries a strong incentive to refrain from acquiring their own enrichment and reprocessing capabilities.

Nonproliferation and Verification Research and Development

The FY 2009 budget requests $275 million for Nonproliferation and Verification Research and Development. This effort encompasses two primary programs that make unique contributions to national security by conducting research and development into new technical capabilities to detect illicit foreign production, diversion or detonation of nuclear materials. The Proliferation Detection Program

conducts research across a spectrum of technical disciplines that supports the NNSA mission, national and homeland security agencies and the counterterrorism community. Specifically, this program develops the tools, technologies, techniques, and expertise required for the identification, location, and analysis of facilities, materials, and processes of undeclared and proliferant nuclear programs. The Nuclear Detonation Detection Program produces the nation's space-based operational sensors that monitor the entire planet to detect and report surface, atmospheric, or space nuclear detonations. This program also produces and updates regional geophysical datasets that enable and enhance operation of the nation's seismic nuclear detonation detection network.

NAVAL REACTORS

The Naval Reactors FY 2009 Budget Request of $828 million is an increase of $20 million from the FY 2008 request. Naval Reactor's development work ensures that nuclear propulsion technology provides options for maintaining and upgrading current capabilities, as well as for meeting future threats to U.S. security.

The majority of funding supports Naval Reactor's number-one priority of ensuring the safety and reliability of the 102 operating naval nuclear propulsion plants. This work involves continual testing, analysis, and monitoring of plant and core performance, which becomes more critical as the reactor plants age. The nature of this business demands a careful, measured approach to developing and verifying nuclear technology, designing needed components, systems, and processes, and implementing them in existing and future plant designs. Most of this work is accomplished at Naval Reactors' DOE laboratories. These laboratories have made significant advancements in extending core lifetime, developing robust materials and components, and creating an array of predictive capabilities.

Long-term program goals have been to increase core energy, to achieve life-of-the-ship cores, and to eliminate the need to refuel nuclear-powered ships. Efforts associated with this objective have resulted in planned core lives that are sufficient for the 30-plus year submarine (based on past usage rates) and an extended core life planned for CVN 21 (the next generation aircraft carrier). The need for nuclear propulsion will only increase over time as the uncertainty of fossil fuel cost and availability grows.

Naval Reactors' Operations and Maintenance budget request is categorized into six areas: Reactor Technology and Analysis; Plant Technology; Materials Development and Verification; Evaluation and Servicing; Advanced Test Reactor (ATR) Operations and Test Support; and Facility Operations.

The $204 million requested for Reactor Technology and Analysis will support work that ensures the operational safety and reliability of reactor plants in U.S. warships and extends the operational life of Navy nuclear propulsion plants. This work includes continued development of the Reactor System Protection Analysis for the next generation aircraft carrier, CVN 21. These efforts also support continued work on core design concepts for submarines.

The increasing average age of our Navy's existing reactor plants, along with future extended service lives, a higher pace of operation and reduced maintenance periods, place a greater emphasis on our work in thermal-hydraulics, structural mechanics, fluid mechanics, and vibration analysis. These factors, along with longer-life cores, mean that for years to come, these reactors will be operating beyond our previously-proven experience base.

The $104 million requested for Plant Technology provides funding to develop, test, and analyze components and systems that transfer, convert, control, and measure reactor power in a ship's power plant. Naval Reactors is developing components to address known limitations and to improve reliability of instrumentation and power distribution equipment to replace aging, technologically obsolete equipment. Development and application of new analytical methods, predictive tests, and design tools are required to identify potential concerns before they become actual problems. This enables preemptive actions to ensure the continued safe operation of reactor plants and the minimization of maintenance costs over the life of the ship. Additional technology development in the areas of chemistry, energy conversion, instrumentation and control, plant arrangement, and component design will continue to support the Navy's operational requirements.

The $106 million requested for Materials Development and Verification supports material analyses and testing to provide the high-performance materials necessary to ensure that naval nuclear propulsion plants meet Navy goals for extended warship operation and greater power capability. These funds support the test assemblies for use in ATR, post irradiation examination of the materials tested at ATR, and destructive and non-destructive examinations of spent navy nuclear fuel and reactor component materials.

The $264 million requested for Evaluation and Servicing sustains the operation, maintenance, and servicing of Naval Reactors' operating prototype reactor plants. Reactor core and reactor plant materials, components, and systems in these plants provide important research and development data and experience under actual operating conditions. These data aid in predicting and subsequently preventing problems that could develop in fleet reactors. With proper maintenance, upgrades, and servicing, the two prototype plants will continue to meet testing needs for at least the next decade.

Evaluation and Servicing funds also support the implementation of the dry spent fuel storage production lines that will put naval spent fuel currently stored in water pools at the Idaho Nuclear Technology and Engineering Center (INTEC) on the Idaho National Laboratory (INL) and at the Expended Core Facility (ECF) on the Naval Reactors facility in Idaho into dry storage. Additionally, these funds support ongoing decontamination and decommissioning of inactive nuclear facilities at all Naval Reactors sites to address their "cradle to grave" stewardship responsibility for these legacies and minimize the potential for any environmental releases.

The $60 million requested for Advanced Test Reactor Operations and Test Support sustains the ongoing activities of the INL ATR facility, owned and operated by the Office of Nuclear Energy (NE), Science and Technology.

In addition to the budget request for the important technical work discussed above, facilities funding is required for continued support of Naval Reactor's operations and infrastructure. The $32 million requested for facilities operations will maintain and modernize the program's facilities, including the Bettis and Knolls laboratories as well as ECF and Kesselring Site Operations (KSO), through capital equipment purchases and general plant projects.

The $22 million requested for construction funds will be used to support the project engineering and design of KAPL infrastructure upgrades and ECF M290 receiving and discharge station, to support the

design and construction of production support complex at NRF, and to support the construction of a materials research technology complex.

OFFICE OF THE ADMINISTRATOR

This account provides for all Federal NNSA staff in Headquarters and field locations except those supporting Naval Reactors and the Office of Secure Transportation couriers. The FY 2009 Budget Request is $404.1 million, essentially level with the FY 2008 appropriation reflecting a leveling of staffing growth.

This Budget Request is consistent with the funding needed for personnel support in an account that is comprised of over 70 percent salaries and benefits. Staffing is projected to increase by 95 to a total of 1,942 FTE in FY 2009, in support of new hires brought on-board at the end of FY 2008 and beginning of FY 2009 to meet increased requirements in Defense Nuclear Nonproliferation and Emergency Operations program goals as well as address NNSA workforce planning skill mix issues. Information Technology (IT) for the Federal staff is also included in this account, and the FY 2009 request is level with 2008.

The outyear budget for this account projects a 3.7 percent increase in FY 2010, followed by about 4 percent annually in the ensuing years. There remain significant challenges in managing this account due to the essentially uncontrollable impacts of escalation on payroll and benefits for NNSA staff that consume such a high percentage of this account.

Historically Black Colleges and Universities (HBCU) Support

A research and education partnership program with the HBCUs and the Massie Chairs of Excellence was initiated by the Congress through Congressionally directed projects in the Office of the Administrator appropriation in FY 2005. The NNSA has established an effective program to target national security research opportunities for these institutions to increase their participation in national security-related research and to train and recruit HBCU graduates for employment within the NNSA. The NNSA goal is a stable $10 million annual effort. However, the FY 2008 Consolidated Appropriations Act (P.L. 110-161), included $22.1 million in congressionally directed projects in support of the HBCU programs within the Office of the Administrator account, for both new and existing projects. In FY 2009, the Office of the Administrator appropriation will provide funding of $3.6 million in continuing support for HBCU activities for institutions not yet ready to engage in direct NNSA mission support. The Weapons Activities appropriation will provide up to $6 million; the Defense Nuclear Nonproliferation appropriation will provide up to $3 million; and the Naval Reactors program will fund up to $1 million of HBCU efforts in FY 2009 in multiple research partnerships directly supporting mission program activities.

National Nuclear Security Administration

Appropriation and Program Summary Tables
Outyear Appropriation Summary Tables

FY 2009 BUDGET TABLES

National Nuclear Security Administration

Overview

(dollars in thousands)

	FY 2007 Current Appropriations	FY 2008 Original Appropriation	FY 2008 Adjustments	FY 2008 Current Appropriation	FY 2009 Request
National Nuclear Security Administration					
Office of the Administrator	358,291	405,987	-3,850	402,137	404,081
Weapons Activities	6,258,583	6,355,633	-58,167	6,297,466	6,618,079
Defense Nuclear Nonproliferation	1,824,202	1,673,275	-15,279	1,657,996	1,247,048
Naval Reactors	781,800	781,800	-7,114	774,686	828,054
Total, NNSA	**9,222,876**	**9,216,695**	**-84,410**	**9,132,285**	**9,097,262**
Rescission of Prior Year Balances	0	-322,000	0	-322,000	0
Total, NNSA (OMB Scoring)	**9,222,876**	**8,894,695**	**-84,410**	**8,810,285**	**9,097,262**

Appropriation Summary

Outyear Appropriation Summary
NNSA Future-Years Nuclear Security Program (FYNSP)

(dollars in thousands)

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
NNSA					
Office of the Administrator	404,081	419,848	436,266	451,771	469,173
Weapons Activities	6,618,079	6,985,695	7,197,844	7,286,912	7,460,318
Defense Nuclear Nonproliferation	1,247,048	1,082,680	1,076,578	1,111,337	1,133,982
Naval Reactors	828,054	848,641	869,755	880,418	899,838
Total, NNSA	**9,097,262**	**9,336,864**	**9,580,443**	**9,730,438**	**9,963,311**

Office of the Administrator
National Nuclear Security Administration

Overview

Appropriation Summary by Program

(dollars in thousands)

	FY 2007 Current Appropriation	FY 2008 Original Appropriation	FY 2008 Adjustments	FY 2008 Current Appropriation	FY 2009 Request	$ Change
Office of the Administrator						
Office of the Administrator	358,291[a]	383,487	-3,490	379,997	404,081	+24,084
Congressional Directed Projects	0	22,500	-360	22,140	0	-22,140
Total, Office of the Administrator	358,291	405,987	-3,850[b]	402,137	404,081	+1,944

Public Law Authorization:
FY 2008 Consolidated Appropriations Act (P.L. 110-161)
National Nuclear Security Administration Act, (P.L. 106-65), as amended

Outyear Appropriation Summary

(dollars in thousands)

	FY 2010	FY 2011	FY 2012	FY 2013
Office of the Administrator	419,848	436,266	451,771	469,173

[a] Reflects the Congressionally approved appropriation transfer of $17,000,000 (07-D-04) from a source within the Weapons Activities appropriation and $1,000,000 from the FY 2007 supplemental in support of the Defense Nuclear Nonproliferation program.

[b] Reflects a rescission of $3,850,000 as cited in the FY 2008 Consolidated Appropriations Act (P.L. 110-161).

Weapons Activities

Funding Profile by Subprogram

(dollars in thousands)

	FY 2007 Current Appropriation	FY 2008 Original Appropriation	FY 2008 Adjustments	FY 2008 Current Appropriation	FY 2009 Request
Weapons Activities					
Directed Stockpile Work	1,430,192	1,413,879	-12,627	1,401,252	1,675,715
Science Campaign	267,758	290,216	-2,592	287,624	323,070
Engineering Campaign	161,736	171,075	-1,527	169,548	142,742
Inertial Confinement Fusion Ignition and High Yield Campaign	489,706	474,442	-4,236	470,206	421,242
Advanced Simulation and Computing Campaign	611,253	579,714	-5,177	574,537	561,742
Pit Manufacturing and Certification Campaign	242,392	215,758	-1,927	213,831	0
Readiness Campaign	201,713	159,512	-1,424	158,088	183,037
Readiness in Technical Base and Facilities	1,613,241	1,652,132	-14,751	1,637,381	1,720,523
Secure Transportation Asset	209,537	213,428	-1,905	211,523	221,072
Nuclear Weapons Incident Response	133,514	160,084	-1,429	158,655	221,936
Facilities and Infrastructure Recapitalization Program	169,383	181,613	-1,622	179,991	169,549
Environmental Projects and Operations	0	8,669	-77	8,592	40,587
Transformation Disposition	0	0	0	0	77,391
Defense Nuclear Security	656,653	806,434	-7,201	799,233	737,328
Cyber Security	104,505	101,191	-904	100,287	122,511
Congressionally Directed Projects	0	48,000	-768	47,232	0
Subtotal, Weapons Activities	**6,291,583**	**6,476,147**	**-58,167**	**6,417,980**	**6,618,445**
Security Charge for Reimbursable Work	-33,000	-34,000		-34,000	0
Use of Prior Year Balances	0	-86,514		-86,514	-366
Total, Weapons Activities	**6,258,583**	**6,355,633**	**-58,167**	**6,297,466**	**6,618,079**

Public Law Authorization:

FY 2008 Consolidated Appropriations Act (P.L. 110-161)
National Nuclear Security Administration Act, (P.L. 106-65), as amended

Outyear Funding Profile by Subprogram

(dollars in thousands)

	FY 2010	FY 2011	FY 2012	FY 2013
Weapons Activities				
Directed Stockpile Work	1,762,079	1,789,979	1,760,218	1,776,388
Science Campaign	309,091	295,192	296,662	299,902
Engineering Campaign	148,863	146,565	150,475	153,907
Inertial Confinement Fusion Ignition and High Yield Campaign	434,007	381,173	373,005	377,762
Advanced Simulation and Computing Campaign	526,373	510,808	514,405	520,645
Pit Manufacturing and Certification Campaign	0	0	0	0
Readiness Campaign	170,003	161,139	161,130	164,295
Readiness in Technical Base and Facilities	1,904,398	2,153,557	2,275,909	2,372,916
Secure Transportation Asset	249,555	261,543	268,134	269,325
Nuclear Weapons Incident Response	229,661	235,211	242,425	250,947
Facilities and Infrastructure Recapitalization Program	192,945	196,379	195,096	194,779
Environmental Projects and Operations	37,288	39,026	37,468	36,040
Transformation Disposition	89,457	88,589	88,008	87,863
Defense Nuclear Security	818,285	817,809	793,856	814,928
Cyber Security	113,690	120,874	130,121	140,621
Total, Weapons Activities	**6,985,695**	**7,197,844**	**7,286,912**	**7,460,318**

Defense Nuclear Nonproliferation

Funding Profile by Subprogram

(dollars in thousands)

	FY 2007 Current Appropriation	FY 2008 Original Appropriation	FY 2008 Adjustments	FY 2008 Current Appropriation	FY 2009 Request
Defense Nuclear Nonproliferation					
Nonproliferation and Verification Research and Development	265,197	390,752	-3,556	387,196	275,091
Nonproliferation and International Security	128,911	151,370	-1,377	149,993	140,467
International Nuclear Materials Protection and Cooperation	597,646	630,217	-5,735	624,482	429,694
Elimination of Weapons-Grade Plutonium Production	231,152	181,593	-1,653	179,940	141,299
Fissile Materials Disposition	470,062	66,843	-608	66,235	41,774
Global Threat Reduction Initiative	131,234	195,000	-1,775	193,225	219,641
International Nuclear Fuel Bank	0	50,000	-455	49,545	0
Congressional Directed Projects	0	7,500	-120	7,380	0
Subtotal, Defense Nuclear Nonproliferation	**1,824,202**	**1,673,275**	**-15,279**	**1,657,996**	**1,247,966**
Use of Prior Year Balances	0	0	0	0	-918
Total, Defense Nuclear Nonproliferation	**1,824,202**	**1,673,275**	**-15,279**	**1,657,996**	**1,247,048**
Rescission of Prior Year Balances	0	-322,000	0	-322,000	0
Total, Defense Nuclear Nonproliferation (OMB Scoring)	**1,824,202**	**1,351,275**	**-15,279**	**1,335,996**	**1,247,048**

NOTES: The FY 2007 Current Appropriation column includes additions for international contributions to the Elimination of Weapons-Grade Plutonium Production Program in the amount of $5,397,964; to the International Nuclear Materials Protection and Cooperation Program in the amount of $4,916,044 and to the Global Threat Reduction Initiative Program in the amount of $1,738,800. FY 2008 Adjustments reflect a rescission of $15,279,000 as cited in the FY 2008 Consolidated Appropriations Act (P.L. 110-161).

Public Law Authorization:

FY 2008 Consolidated Appropriations Act (P.L. 110-161)
National Nuclear Security Administration Act, (P.L. 106-65), as amended

Outyear Funding Profile by Subprogram

(dollars in thousands)

	FY 2010	FY 2011	FY 2012	FY 2013
Defense Nuclear Nonproliferation				
Nonproliferation and Verification Research and Development	318,620	334,182	343,397	351,098
Nonproliferation and International Security	151,052	158,711	171,108	175,368
International Nuclear Materials Protection and Cooperation	400,511	394,626	395,225	404,064
Elimination of Weapons Grade Plutonium Production	24,507	0	0	0
Fissile Materials Disposition	37,691	27,985	28,435	26,000
Global Threat Reduction Initiative	150,299	161,074	173,172	177,452
Total, Defense Nuclear Nonproliferation	**1,082,680**	**1,076,578**	**1,111,337**	**1,133,982**

Naval Reactors

Funding Profile by Subprogram

(dollars in thousands)

	FY 2007 Current Appropriation	FY 2008 Original Appropriation	FY 2008 Adjustments	FY 2008 Current Appropriation	FY 2009 Request
Naval Reactors Development					
Operations and Maintenance (O&M)	747,648	739,100	-6,726	732,374	771,60
Program Direction	31,380	32,700	-297	32,403	34,45
Construction	2,772	10,000	-91	9,909	22,00
Total, Naval Reactors Development	**781,800**	**781,800**	**-7,114**	**774,686**	**828,05**

Public Law Authorizations:
P.L. 83-703, "Atomic Energy Act of 1954"
"Executive Order 12344 (42 U.S.C. 7158), "Naval Nuclear Propulsion Program"
P.L. 107-107, "National Defense Authorizations Act of 2002", Title 32, "National Nuclear Security Administration"
John Warner National Defense Authorization Act for FY 2007, (P.L. 109-364)

FY 2008 Consolidated Appropriations Act (P.L. 110-161)
National Nuclear Security Administration Act, (P.L. 106-65), as amended

Outyear Funding Profile by Subprogram

(dollars in thousands)

	FY 2010	FY 2011	FY 2012	FY 2013
Naval Reactors Development				
Operations and Maintenance	782,087	811,651	827,164	831,084
Program Direction	35,754	37,054	38,354	39,754
Construction	30,800	21,050	14,900	29,000
Total, Naval Reactors Development	**848,641**	**869,755**	**880,418**	**899,838**

Statement of James A. Rispoli
Assistant Secretary for Environmental Management
U.S. Department of Energy
Before the Subcommittee on Strategic Forces
Committee on Armed Services
U.S. House of Representatives

March 12, 2008

Good morning, Madam Chairman, Congressman Everett, and Members of the Subcommittee. I am pleased to be here today to answer your questions on the President's Fiscal Year (FY) 2009 budget request for the Department of Energy's Office of Environmental Management (EM). I want to thank the Subcommittee for your support of the EM program.

The year 2009 will mark 20 years since the EM program was first established just as the Cold War was coming to an end. While the budget we are considering today is oriented toward the future, I think it is appropriate to begin today by considering how much this program has accomplished since its creation.

At that time, nearly 50 years of nuclear weapons production and energy research had left a legacy of enormous amounts of waste and environmental contamination at more than 100 sites across the country. The extent of the risk to our citizens and communities was literally unknown, and certainly many of the processes and technologies to reduce that risk had not yet been invented.

Since then, we have closed 86 of 108 sites nationwide. The national "footprint" of the Department's nuclear complex and its accompanying risks has been drastically reduced, and eliminated altogether from many states. We have packaged and safely stored all of the nation's excess plutonium inventory. We have pioneered new technologies that have allowed us to make progress retrieving millions of gallons of tank waste, and to safely dispose tens of thousands of cubic meters of transuranic waste. In FY 2006 and FY 2007 alone, we demolished approximately 500 buildings (nuclear, radioactive, and industrial) as part of our decontamination and decommissioning (D&D) projects. And finally, we have made great strides in protecting groundwater using innovative treatment systems.

Today marks likely the final time that I will be testifying before you regarding our program's budget request. When I first assumed the position of Assistant Secretary for Environmental Management in August 2005, I set out to institute a rigorous project management system, and, above all, to continue to emphasize safety and risk reduction. I sought to refine and independently verify our project baselines – the estimates of scope, schedule and cost that guide every project – to ensure that they are realistic and executable. I will discuss our successes in this area as well as our ongoing challenges.

The FY 2009 budget request is once again built on the principle of prioritizing risk reduction across the *entire* complex for which EM is responsible, supported by our four guiding tenets of safety, performance, cleanup and closure. With 90 percent of our budget addressing mission activities at our cleanup sites, more than half of FY 2009 funding will go towards our highest-risk activities of stabilizing tank waste, nuclear materials and spent nuclear fuel; another one-quarter of the budget will be devoted to cleaning up contaminated soil, groundwater, and excess facilities, and about 14 percent going to manage wastes streams related to those cleanup activities. The remaining 10 percent covers mission activity support, including costs for program oversight provided by our federal personnel, and technology development.

Mr. Chairman, let me point out that the Administration recognizes that EM's FY 2009 budget request of $5.528 billion is based on, and would implement, an environmental management approach under which the Department would not meet some of the milestones and obligations contained in the environmental agreements that have been negotiated over many years. It is also important to recognize that some upcoming milestones will be missed regardless of the approach that is chosen and its associated level of funding.

Moreover, some of the relevant agreements were negotiated many years ago, with incomplete knowledge by any of the parties of the technical complexity and magnitude of costs that would be involved in attempting to meet the requirements. This incomplete knowledge, coupled with other issues including contractor performance, overly optimistic planning assumptions, and emerging technical barriers, also have impeded the Department in meeting all milestones and obligations contained in the environmental compliance agreements.

In planning its environmental cleanup efforts and developing the budget for those activities, the Department seeks to focus on work that will produce the greatest environmental benefit and the largest amount of risk reduction. The Department strongly believes that setting priorities and establishing work plans in this way is the most effective use of taxpayer funds and will have the greatest benefit, at the earliest possible time, to the largest number of people.

In determining these priorities, the Department works closely with the federal and state regulators, and will seek the cooperation of those entities in helping evaluate needs and focus work on the highest environmental priorities based on current knowledge, particularly where doing so necessitates modification of cleanup milestones embodied in prior agreements with the Department.

MANAGING OUR PRIORITIES

When I appeared before this Subcommittee two years ago, I pledged that safety would remain our first priority. All workers deserve to go home as healthy as they were when they arrived at the job in the morning. No milestone is worth any injury to our workforce. I am pleased to say that EM's safety performance continues to be outstanding. As a result of collaborative efforts by DOE and our contractors, worker injuries have been reduced by 50 percent during the past three years. Currently EM's injury rate is less than 10 percent of comparable commercial waste disposal and construction industries.

Another priority we discussed two years ago was my goal of making EM a high-performing organization by every measure. This goal has required us to look critically at every aspect of how we plan, procure, execute and manage every project under our jurisdiction, and how we align every dollar the taxpayers provide to achieving environmental cleanup goals.

On the subject of our management practices, in September 2005, Congress asked NAPA to undertake a management review of EM, including an assessment of EM's human capital. NAPA's study, conducted over a period of 18 months, was very interactive; we opened our operations to NAPA for scrutiny and in turn have embraced and implemented nearly all of NAPA's proposals.

Most of all, we were gratified that NAPA concluded in its final report issued this past December that EM, "is on a solid path to becoming a high-performing organization." We know we have much remaining to be accomplished, but we take NAPA's conclusion as a sign that we are, in fact, headed in the right direction with regard to how we function as an organization.

A budget is only as good as its planning basis. Our request is developed from our project baselines that define the scope, cost, and schedule for each project, and I have much to report to you in this area. When I assumed this position, I was concerned that the accepted baselines for many of our projects were unrealistic. The reasons for this included overly aggressive assumptions in the technical and regulatory arenas, increasing costs of materials and simple underperformance.

Since that time, our sites have undergone an independent review to verify the reasonableness of the scope, cost, and schedule for each project. This review also documented assumptions and associated risk management plans that supported baseline development. As a result, all near-term baselines up to five years have now been independently reviewed and verified, while long-term cost ranges have been determined to be reasonable. As we move forward in the FY 2009 budget process, I believe that the Subcommittee can view near-term cost assumptions associated with our projects with greater confidence than ever before.

The majority of EM sites do, in fact, include baselines with completion dates beyond 2013. Through a collaborative process with our field sites, EM is seeking to define aggressive but achievable strategies for accelerating cleanup of distinct sites or segments of work that involve multiple sites. Moreover, it is important to note that EM's site cleanup activities are managed as one integrated *national* program; the work and risks associated with each site are inherently interrelated with that at other sites. Thus, we continue to evaluate and implement cross-site risk priorities and cleanup activities.

In 2005, we set out to integrate proven project management tools into our business processes, and address our shortcomings in project management by using DOE and industry-standard business management tools. I stated to you in 2006 that our goal was for at least 90 percent of our projectized portfolio to perform on-target, or better than on-target regarding cost and schedule. I am pleased to report that we now consistently meet that goal—in excess of 90 percent of our portfolio, currently numbering more than 65 independently audited projects, consistently performs within cost and schedule targets.

As an "acquisition" organization, EM accomplishes its mission through procurement and execution of our projects. Since the contract serves as the principal agreement governing how a project is executed between DOE and the contractor, contract and project management must be seamlessly managed in parallel. To oversee this process, about 18 months ago, we implemented an organizational structure, including the creation of a Deputy Assistant Secretary for Acquisition and Project Management. This position integrates the two functions of procurement planning and project management, helping us to professionalize the procurement process so that we learn from, and improve upon, each contract experience. Moreover, it provides us with strong management oversight after the contract is awarded. We are striving to make EM nothing short of a "Best-in-Class" organization for project and contract management and engineering and technology.

The FY 2009 Technology Development and Deployment Program will be highly focused and concentrate its investments in EM high priority cleanup areas, including radioactive tank waste, soils and groundwater remediation, and deactivation and decommissioning excess facilities. Best-in-class performers, including other Federal agencies, the national laboratories, the university system, and private industry will be utilized to conduct the Technology Development and Deployment scope.

The EM program has always required a strong technology component to accomplish its mission, one that is focused on developing and deploying technologies to enhance safety, effectiveness, and efficiency. As we look ahead to our cleanup work, we face the ongoing challenge of maturing and integrating technology into first-of-a-kind solutions. An Engineering and Technology Roadmap has been developed to address this need. The Roadmap identifies the technical risks the EM program faces over the next ten years, and strategies to address the risks. EM's validated baselines are a powerful tool that allows EM managers to identify the points at which new knowledge and technology can be efficiently inserted into EM cleanup projects to address risks.

BUDGETING FOR OUR PRIORITIES

Before I discuss the FY 2009 budget request, allow me to draw attention to the significant cleanup progress achieved recently. We have:

- Completed stabilization and packaging for all plutonium residues, metals, and oxides and begun consolidation of all of these materials at the Savannah River Site (SRS);
- Produced for disposition more than 2,500 cans of vitrified high-level waste from highly radioactive liquid wastes;
- Completed retrieval and packaging for disposal of more than 2,100 metric tons of spent nuclear fuel from K-basins at Hanford to protect the Columbia River;
- Shipped more than 50,000 cubic meters of transuranic (TRU) waste from numerous sites to the Waste Isolation Pilot Plant (WIPP) for permanent disposal, including 25,000 out of a planned 30,000 drums from SRS;
- Disposed of nearly one million cubic meters of legacy low-level waste and mixed low-level waste;

- Eliminated 11 of 13 high-risk material access areas through material consolidation and cleanup; and
- Cleaned up the Melton Valley area at the Oak Ridge Reservation and continued decontamination and decommissioning of three gaseous diffusion buildings at Oak Ridge.

The program has made significant progress in shifting focus from risk management to risk reduction. This focus on measurable risk reduction continues to be the guiding principle behind the development of our FY 2009 budget request.

To strike the balance that allows EM to continue achieve risk reduction and pursue cleanup goals, we propose funding the following risk reduction and regulatory activities in priority order:

- Stabilizing radioactive tank waste in preparation for treatment (about 32 percent of the FY 2009 request);
- Storing, stabilizing, and safeguarding nuclear materials and spent nuclear fuel (about 18 percent of the FY 2009 request);
- Disposing of transuranic, low-level, and other solid wastes (about 14 percent of the FY 2009 request); and
- Remediating major areas of EM sites, and decontaminating and decommissioning facilities (about 26 percent of the FY 2009 request).

FY 2009 BUDGET REQUEST

The Department's FY 2009 budget request for the Office of Environmental Management is $5.528 billion, of which $5.298 billion is for defense EM activities.

For FY 2009, EM's funding priorities to best address our environmental cleanup challenges are:

- Conducting cleanup with a "Safety First" culture that integrates environment, safety and health requirements, and controls into all work activities to ensure protection to the worker, public, and the environment;
- Establishing a disposition capability for radioactive liquid tank waste and spent nuclear fuel;
- Securing and storing nuclear material in a stable, safe configuration in secure locations to protect national security;
- Transporting and disposing of transuranic and low-level wastes in a safe and cost-effective manner to reduce risk;
- Remediating soil and groundwater in a manner that will assure long-term environmental and public protection; and
- Decontaminating and decommissioning facilities that provide no further value to reduce long-term liabilities while remediating the surrounding environment.

Examples of milestones and planned activities for FY 2009 by site-specific categories are:

Idaho

- *Meet requirements in the Idaho Settlement Agreement to ship stored contact-handled and remote-handled transuranic (TRU) waste to the Waste Isolation Pilot Plant (WIPP).*

  The Idaho National Laboratory will continue characterizing, treating, packaging, and transporting of contact-handled and remote-handled TRU waste to WIPP.

- *Continue construction of the sodium-bearing waste treatment facility to support tank waste retrievals.*

  The overall objectives of this project are to treat and dispose of sodium-bearing tank wastes, close the tank farms tanks, and perform initial tank soil remediation work. Construction and operation of the sodium-bearing waste treatment facility will reduce potential risk to human health and the environment by preventing the potential migration of contamination into the Snake River Plain Aquifer, which is a sole-source aquifer for the people of Southeastern Idaho.

- *Complete the transfer of all EM-managed spent nuclear fuel to dry storage.*

  EM will continue to promote the safe and secure receipt and dry storage of spent fuel to protect the Snake River Plain Aquifer.

Los Alamos National Laboratory

- *Promote soil and water remediation.*

  The Los Alamos National Laboratory (LANL) Soil and Water Remediation Project scope includes identification, investigation, and remediation of chemical and or radiological contamination attributable to past Laboratory operations and practices. In order to support the project scope, in FY 2009 EM plans to: complete required groundwater monitoring within eight watersheds, install four regional aquifer monitoring wells, complete four soil cleanups, including Material Disposal Area R in Technical Area-16, and continue remediation of tanks at the Material Disposal Area A in Technical Area-21.

- *Continue TRU waste shipments to WIPP.*

  The Solid Waste Stabilization and Disposition Project includes the treatment, storage, and disposal of legacy TRU and mixed low-level waste generated between 1970 and 1999 at LANL. The end-state of this project is the safe disposal of legacy waste from LANL. In FY 2009, EM plans to continue characterization and certification of TRU waste for shipment to WIPP and continue services and safety-related activities to maintain the waste inventories in a safe configuration and within allowable Material-at-Risk limits established for the site.

Oak Ridge

- *Complete final design for the Uranium-233(U-233) down-blending project and begin Building 3019 modifications.*

  The U-233 inventory in Building 3019 will be down-blended as expeditiously as possible to reduce the substantial annual costs associated with safeguards and security requirements and to address nuclear criticality concerns raised by the Defense Nuclear Facilities Safety Board (DNFSB).

- *Process and ship contact-handled and remote-handled TRU waste to WIPP.*

  Approximately 300 cubic meters of contact-handled TRU debris and 100 cubic meters of remote-handled TRU debris will be processed for disposal at WIPP.

- *Decontaminate and decommission (D&D) the Y-12 National Security Complex and Oak Ridge National Laboratory (ORNL).*

  Remediation of the Corehole 8 plume at ORNL and of mercury contamination at Y-12 will be performed. The on-site disposal cell for receipt of D&D debris and cleanup waste will be expanded.

Richland

- *Complete shipping of special nuclear materials from the Plutonium Finishing Plant (PFP).*

  The PFP complex consists of several buildings that were used for defense production of plutonium nitrates, oxides and metal from 1950 through early 1989. As part of the PFP cleanup, Richland's goal is to complete shipments of special nuclear materials off-site to the Savannah River Site and procure additional casks to support completion of the shipping campaign by the end of FY 2009.

- *Enhance groundwater remediation at the Central Plateau and along the Columbia River.*

  Over 50 years of weapons production at the Hanford site has left the groundwater contaminated by carbon tetrachloride, chromium, technetium 99, strontium, and uranium. EM is dedicated to protecting the groundwater resources at Hanford as well as the Columbia River, through deployment of innovative technologies in FY 2009 to address all of the contaminants in the vadose zone and groundwater, with supporting investigations such as installation of new wells for monitoring and characterization, and geophysical logging to provide additional subsurface information on contaminant distribution.

- *Cleanup of waste sites and facilities along the Columbia River Corridor including K-East Basin D&D.*

  The K Basins project is a high priority risk reduction activity due to its close proximity to the Columbia River. To date, we have completed the removal, packaging, and transportation of approximately 2,100 metric tons of degrading spent nuclear fuel, removal of an estimated 44 cubic meters of radioactively contaminated sludge, and the basin water is now being pumped out. In FY 2009, the K-East basin will be completely demolished. The end-state of the K Basins cleanup will mean the removal of more than 55 million curies of radioactivity from near the Columbia River.

- *Retrieve suspect contact-handled and remote-handled TRU waste from burial grounds and continue to ship to WIPP.*

  The Hanford Site contains thousands of containers of suspect contact-handled and remote-handled TRU waste, low-level waste, and mixed low-level waste. Activities planned in FY 2009 are to retrieve 1,100 cubic meters of suspect contact-handled and remote-handled TRU waste from the low-level burial grounds, continue certification of transuranic waste, and dispose of on-site generated low-level and mixed low-level wastes at the mixed waste disposal trenches.

River Protection

- *Manage the tank farms in a safe and compliant manner until closure.*

  The radioactive waste stored in the Hanford tanks was produced as part of the nation's defense program and has been accumulating since 1944. To protect the Columbia River, the waste must be removed and processed to a form suitable for disposal and the tanks must be stabilized. To reach these goals, EM plans to enhance the Single-Shell Tank Integrity Program, continue to develop retrieval technologies and retrieve waste from approximately one tank per year, and continue to evaluate supplemental treatment technology, and interim pre-treatment capabilities.

- *Advance in Waste Treatment and Immobilization Plant construction.*

  The Waste Treatment and Immobilization Plant (WTP) is critical to the completion of the Hanford tank waste program by providing the primary treatment capability to immobilize the radioactive tank waste at the Hanford Site. The WTP complex includes five facilities: the Pretreatment Facility, the High-Level Waste Facility, the Low-Activity Waste Facility, the Balance of Facilities, and the Analytical Laboratory. In FY 2009, EM plans to continue construction of all of these facilities to achieve approximately 55 percent completion, while maintaining the viability of other supplemental treatment options. The end-state of this project will be the completion of the WTP hot commissioning and transfer of the facilities to an operations contractor to run the plant.

Savannah River

- *Continue consolidation and disposition of special nuclear materials.*

  The receipt, storage, and disposition of materials at the Savannah River Site allows for de-inventory and shutdown of other DOE complex sites, providing substantial risk reduction and significant mortgage reduction savings to the Department. In FY 2009, the Savannah River Site will complete the receipt of surplus plutonium from the Hanford Site, Los Alamos National Laboratory, and Lawrence Livermore National Laboratory. Also in FY 2009, EM plans to operate H-Canyon/HB-Line to disposition special nuclear materials and begin processing of Savannah River Site's spent nuclear fuel in H-Canyon.

- *Reduce radioactive liquid waste.*

  The mission of the tank waste program at Savannah River is to safely and efficiently treat, stabilize, and dispose of approximately 37 million gallons of legacy radioactive waste currently stored in 49 underground storage tanks. In FY 2009, planned EM activities include: continue operation of Actinide Removal Project, Modular Caustic-Side Solvent Extraction Unit, and the Defense Waste Processing Facility, continue the construction of the Salt Waste Processing Facility; and prepare sludge batches in support of continued high-level waste vitrification. Activities are planned to free up additional tank space, such as treatment of organic waste in the 1.3 million gallon Tank 48 to return the tank to useful service.

Waste Isolation Pilot Plant

- *Continue safe shipment, receipt, and disposal of contact-handled and remote-handled TRU waste.*

  WIPP in Carlsbad, New Mexico, is the nation's only mined geologic repository for the permanent disposal of defense-generated TRU waste. In FY 2009, the budget request supports up to 21 contact-handled TRU and up to 5 remote-handled TRU shipments per week from across the DOE complex.

CONCLUSION

Mr. Chairman, I am proud of the progress the EM program has made in recent years, both in terms of meeting the nation's cleanup priorities, and in building the foundation for future efforts. I respectfully submit EM's FY 2009 budget request and am pleased to answer your questions.

Written Testimony of Glenn S. Podonsky
Chief Health, Safety and Security Officer
U.S. Department of Energy
Before the
Subcommittee on Strategic Forces
Committee on Armed Services
U.S. House of Representatives

March 12, 2008

Introduction

Chairwoman Tauscher, Ranking Member Everett, and members of the subcommittee, thank you for inviting me to testify today on the Department of Energy's Fiscal Year (FY) 2009 Budget Request for the Office of Health, Safety and Security (HSS). As the Department's central organization responsible for health, safety, and security, HSS provides corporate-level leadership and strategic vision to coordinate and integrate these programs. HSS provides the Department with effective and consistent policy development, technical assistance, professional development and training, complex-wide independent oversight, and enforcement. As the Chief Health, Safety and Security Officer, I advise the Secretary on a wide range of matters related to health, safety, and security across the complex. Today, I am here to assure you that HSS continues to strengthen the Department's safety and security posture.

Since its creation, HSS has institutionalized its infrastructure and is now recognized by the Department's leadership team, the DOE current and former workforce, other U.S. Departments and Agencies, Congress, the Defense Nuclear Facilities Safety Board (DNFSB), and within the international community as an organization striving for excellence in health, safety, and security arenas.

With the creation of HSS, we recognized that it was important for us to identify opportunities to improve DOE worker health, safety, and security programs. Over the past year, HSS conducted a series of focus group meetings with DOE program offices, worker trade unions, professional associations, and other stakeholders to establish and/or strengthen lines of communication, seek feedback, and identify areas of interest and concern.

HSS continues to interface with other Federal organizations such as the Nuclear Regulatory Commission (NRC), Environmental Protection Agency (EPA), Department of Homeland Security (DHS), and Department of Defense (DoD), to share information and coordinate efforts in strengthening the Department's and the Nation's overall safety and security posture. The HSS security technology deployment program leverages millions of dollars previously invested by DoD, the intelligence community, and other agencies for deployment of proven security technologies. HSS functions as the corporate catalyst for deployment of effective and affordable security technologies crosscutting all DOE program offices to reduce the duplication of effort and provide lessons learned across the complex. Using integrated safety and security experts within HSS, full-scale deployment of new security technology systems at three major DOE facilities and partial deployment at six other sites was completed in 2007 and 2008, allowing for an evaluation of these deployed systems that may benefit all Departmental sites in a cost effective and timely manner without significant increases in manpower.

To better facilitate the implementation of the Energy Employees Occupational Illness Compensation Program Act (EEOICPA), HSS initiated continuous communication with the Department of Labor (DOL) and the National Institute for Occupational Safety and Health

(NIOSH). HSS published a status report on the Former Worker Medical Surveillance Program to inform our former and current workforce, Congress, and the public of the efforts being undertaken for those individuals who may have been exposed to harmful conditions as a result of working for DOE. In FY 2008, HSS (in cooperation with the grantee service providers) initiated a review of the program to ensure the 10,000 medical screenings conducted in FY 2007 is maintained in the coming years.

In the international arena, HSS renegotiated the agreement between DOE and Spain's Ministry of Education and Science to end the Department's 41 years of financial obligations in FY 2009 for the environmental studies associated with the accidental release of nuclear material at Palomares. HSS also strengthened the Department's relationships with Japan and the Marshall Islands to better manage these DOE-funded health programs.

To ensure a safer environment for Departmental workers and the public, and effective security for National assets entrusted to the Department as well as meeting commitments to stakeholders such as Congress and DNFSB, HSS developed or revised and assisted in the implementation of a variety of safety and security directives related to: worker health and safety, incorporating safety in design, environmental protection, integrated safety management, radiation protection, nuclear materials packaging, nuclear facility restart and operational readiness, personnel security, protective force, physical security, information security, and nuclear material control and accountability. At the direction of the Secretary of Energy, HSS is in the process of completing a review of all security requirements and initiated a review of all safety requirements in order to

identify the basis, and to ensure they are performance-based, meaningful, clear, and concise without being overly prescriptive or redundant.

Notably and in response to a highly publicized security incident at Los Alamos National Laboratory (LANL), HSS formed the Office of Departmental Personnel Security to ensure management attention and leadership at the Departmental level to provide consistent implementation of personnel security requirements. In addition, HSS amended applicable DOE worker safety and personnel security requirements to ensure fitness for duty and the reliability of its workforce as it relates to illegal substance abuse. At the direction of the Secretary of Energy, HSS implemented a more stringent illegal drug testing policy for Federal and contractor applicants seeking DOE access authorizations (clearances) and for current employees with clearances.

By aggressively championing DOE environmental programs, HSS, in collaboration with DOE Program and Site Offices, helped the Department achieve a "green" rating for status and progress for the 1) environmental management systems implementation, 2) green purchasing, 3) electronics stewardship, and 4) compliance management elements of the Office of Management and Budget's *Environmental Stewardship Scorecard.* HSS was instrumental in the submittal of 28 DOE nominations for the 2007 White House *Closing-the-Circle* Awards; winning four awards and receiving three honorable mentions out of the 17 winners and 13 honorable mentions from the 200 nominations submitted from agencies across Federal government. In addition, HSS continues to support outstanding environmental performance throughout the Department through the DOE Pollution Prevention (P2) Star Awards program.

In addition to providing the Department with safety and security policy and assistance services, HSS is also responsible for performance feedback via operational experience analyses, independent oversight and enforcement activities. These activities provide Departmental leadership, line management, and stakeholders with timely information needed to gauge the success of implementing Departmental safety and security requirements.

HSS has established viable safety indicators applicable to the majority of DOE contractor operations. Safety indicators are collected through various reporting mechanisms, analyzed, and provided to senior Departmental management every two to three months. Results are used to focus management attention to prevent serious events such as loss of life or serious injuries; over exposures to radiation, hazardous materials or other conditions; inadvertent off-site releases of nuclear and non-nuclear materials; nuclear criticalities; and fires and explosions that would negatively impact the ability of the Department to accomplish its mission.

HSS continued to conduct comprehensive independent oversight appraisals of DOE performance in the areas of safeguards and security; cyber security; emergency management; and environment, safety, and health. Information gained from these appraisals provides Departmental senior management, line management, and HSS and other policy organizations, e.g., the Office of the Chief Information Officer, the information needed to effect improvements in these programs.

More specifically, for example, the Office of Cyber Security Evaluations, within HSS's Office of Independent Oversight, continues to execute one of the most aggressive and sophisticated cyber security corporate oversight programs in the Federal government, which allows the Department to proactively self-identify and address weaknesses. The cornerstone of our cyber security oversight function is to implement a rigorous penetration-testing program in a variety of ways to achieve multiple objectives. These include:

- Announced external and internal penetration testing of Departmental classified and unclassified networks conducted in conjunction with announced cyber security inspections that evaluate a broad set of threats and are designed to assess protection boundaries, physical and logical security configurations and controls, access authorizations, and activity monitoring practices;
- Unannounced remote penetration testing or "red teaming", which emulates a stealthy, methodical, and sophisticated external attack on the network and is designed primarily to test intrusion detection and incident response capabilities. These attacks often target the work force itself, using deceptive emails, fake websites, and unsolicited mailings of compact disks and flash drives, all of which introduce malicious software onto the networks.

In conjunction with our penetration testing activities, HSS assesses key management processes that are essential to an effective cyber security program such as risk management, certification and accreditation, configuration management, and patch management. While our technical testing provides a good snapshot of the effectiveness of the network's cyber security protection, the programmatic evaluation allows an assessment of the direction and sustainability of the cyber security program along with identification of underlying root causes for implementation

weaknesses identified through technical testing. This same basic approach is used to assess unclassified, classified, and intelligence systems operated by the Department. Other cyber security performance testing includes evaluating the protection posture of telephone modems and identifying vulnerable wireless access points that could potentially provide an unprotected alternate pathway into one of our networks.

Threats to our information systems have never been greater and continue to grow in sophistication and intensity every day. Like all Federal agencies, the Department of Energy faces constant challenges to identify, evaluate, and apply cyber security measures that will mitigate these threats and establish an appropriate protection posture for our information and information systems in this ever-changing cyber threat environment. It is of paramount importance that we protect the confidentiality, integrity, and availability of these critical resources utilizing sound risk management approaches. While continuing to have many challenges in this area, the Department has greatly benefited from the HSS cyber security oversight program and continues to make cyber security an area of senior management focus.

The Secretary of Energy is ultimately responsible and accountable for the performance of DOE, including NNSA. Through HSS, the Secretary establishes Department-wide environment, safety, health, and security policy, which also applies to NNSA. The Secretary relies on HSS to conduct corporate independent oversight of all safety and security disciplines, and expects NNSA to respond to all findings with effective corrective actions to eliminate weaknesses. As a result, it is imperative for HSS to maintain a close working relationship with NNSA. The roles of certain elements within NNSA, such as the Office of Defense Nuclear Security, are

complementary to HSS in providing policy, assistance, and training. The role of the Office of Defense Nuclear Security is to provide a line management support function by advising the Administrator, NNSA, on the status of security within NNSA.

Finally, HSS promotes overall improvement in the Department's safety and security programs through management and implementation of the statutorily required DOE enforcement programs under 10 C.F.R. Parts 820, 824, and 851. Over the past 18 months, HSS has integrated the classified information security and worker health and safety enforcement programs into the more established nuclear safety (Price Anderson Amendments Act) enforcement processes. Draft thresholds for reporting into the voluntary Noncompliance Tracking System were developed and used by DOE contractors during a six-month, trial-reporting period to validate the thresholds and familiarize contractors with the reporting process. Results of these efforts include the highly publicized notice of violation against the former and current Los Alamos National Laboratory contractors. HSS is currently conducting several enforcement investigations, including the inquiry into events that led to the release of nuclear material at the Hanford Site Tank Farm.

FY 2009 Budget Request Overview

The HSS FY 2009 budget request of $446.868 million includes $347.271 million for the Health, Safety and Security Programs and $99.597 million for Program Direction. A summary of the programs and activities proposed to continue in FY 2009 with this funding request includes:

Health and Safety Policy, Standards, and Guidance ($4,425,000): DOE issues policy, standards, and guidance to ensure workers and the public, property, and the environment are

protected from the common industrial and unique hazards of DOE activities. Policy, standards, and guidance must take into account the nuclear, chemical, and industrial hazards posed by DOE operations and must be current with worldwide technologies, knowledge and experience. Environmental compliance programs at DOE sites are, for the most part, driven by U.S. Federal, state, and local regulations. HSS provides environmental corporate direction and assistance to DOE sites, especially in the areas of pollution prevention and Environmental Management Systems (EMS) development and implementation. In FY 2008, HSS initiated a review of all safety orders and manuals using the process implemented in FY 2007 for the review of security requirements. The purpose of this review is to identify the basis for all requirements to ensure they are performance-based, meaningful, clear and concise. The FY 2009 budget request provides for HSS to:

- Continue implementation of 10 C.F.R. Part 851, Worker Safety and Health Program
- Amend 10 C.F.R. Part 850, Chronic Beryllium Disease Prevention Program, that implements lessons learned over the past eight years
- Amend 10 C.F.R. Part 835, Occupational Radiation Protection to reflect updated dosimeter standards
- Strengthen worker health and safety, nuclear safety, radiation protection, and environmental policies and standards, including Integrated Safety Management (ISM) and EMS by continuing the review of all requirements contained in DOE directives
- Continue implementation of the Federal Employee Occupational Safety and Health (FEOSH) program via training, guidance, and other communications methods
- Continue assisting DOE sites to implement EMS and the DOE Environmental Compliance Management Improvement Plan

- Continue implementation of the Human Performance Improvement Initiative to identify and correct the organizational and cultural factors that increase the potential for human error causing accidents that interrupt accomplishment of mission
- Develop and issue the DOE Annual Site Environmental and National Environmental Standards for Hazardous Air Pollutants Reports
- Conduct and support cultural resource and environmental protection program workshops, lessons-learned programs and guidance and tools, including those related to implementation of environmental management systems requirements under the new Executive Order 13423 (Strengthening Federal Environmental, Energy, and Transportation Management) as well as those for continued compliance with environmental laws
- Continue supporting training for Nuclear Executive Leadership, Senior Technical Safety Managers, and Environment, Safety, and Health Project Managers
- Update, clarify and strengthen nuclear safety directives and guidance, including those addressing facility maintenance, operational readiness, and integration of safety into design of new facilities
- Maintain requirements for the Federal Technical Capabilities Program (FTCP) which supports the development of Federal personnel with the demonstrated technical capability to safely accomplish the Department's mission and discharge its responsibilities

DOE-Wide Environment, Safety, and Health Programs ($3,575,000): DOE-Wide Environment, Safety, and Health Programs support worker and nuclear facility safety, and protect the public and the environment. Activities under these programs develop state-of-the-art analysis tools and approaches specific to the nature and mix of radioactive, hazardous, and toxic

materials at DOE facilities. Efforts include construction safety; work planning activities, and techniques to identify, evaluate, and eliminate hazards; methods for reducing or eliminating release of pollutants; and the identification of technologies and innovative adaptations of existing practices. Over the past year, HSS has strengthened the DOE Voluntary Protection Program (DOE-VPP) by increasing the number of performance-based evaluations conducted at DOE sites by HSS. The FY 2009 budget request provides for HSS to:

- Continue providing assurance that worker radiation exposures are accurately determined through the DOE Laboratory Accreditation Program (DOELAP)
- Prepare the Annual DOE Occupational Radiation Exposure Report
- Work with DOE sites to increase the utilization of the DOE-VPP program to enable additional workers to benefit
- Promote pollution prevention through DOE Pollution Prevention (P2) Star Awards and improve pollution prevention data reporting and analysis
- Assist sites in maintaining safe operations throughout the life-cycle of their nuclear facilities
- Assist in the implementation of Environmental Management Systems (EMS); provide EMS Status Report to the U.S. Environmental Protection Agency
- Strengthen the implementation of the Enforcement Program by integrating enforcement protocols for both nuclear and worker safety and health
- Improve the Non-compliance Tracking System to strengthen report generation and address feedback received from end users

Corporate Safety Programs ($8,289,000): Corporate Safety Programs serve a crosscutting safety function for the Department and its stakeholders by ensuring excellence and continuous

improvement in environment, safety, and health in the conduct of its missions and activities. Elements that comprise Corporate Safety Programs include Performance Assessment, the Quality Assurance (QA) Program (which includes the Corrective Action Management Program [CAMP]), Filter Test Facility (FTF), the Facility Safety Program (which includes Accident Investigations and Corporate Safety Basis), Safety and Security Enforcement Program, and the Analytical Services Program. The FY 2009 budget request provides for HSS to:

- Strengthen trending and analysis of DOE's safety performance and report performance using the Corporate Safety Performance Indicators
- Communicate feedback and improvement information throughout the Department via the Operating Experience Program
- Continue improving the DOE QA Program through updated directives, assessments, technical assistance, and maintenance of the Corrective Action Management Program
- Consolidate the HSS QA mission and function into a single integral organization to better provide DOE with leadership in setting policy, developing directives, and providing assistance to Program and Site Offices as well as the contractor community in the consistent and effective implementation of QA across the Department
- Operate and maintain the High Efficiency Particulate Air Filter Test Facility
- Conduct Type A investigations for serious incidents and oversee the conduct of Type B investigations via the Accident Investigation Program
- Continue implementation of the Nuclear Safety, Worker Health and Safety, and Security Enforcement Programs

- Implement the Analytical Services Program by developing corporate-level environmental sampling protocols and conducting quality assurance audits of environmental laboratories used by the sites in support of environmental compliance programs
- Analyze the effectiveness of site suspect or counterfeit items programs and prepare the DOE Annual Suspect or Counterfeit Items Activities Report
- Participate in Operational Readiness Reviews and Readiness Assessments, and associated program training, at Category 1, 2, and 3 nuclear facilities prior to the startup or restart of those facilities
- Implement the Differing Professional Opinion program on technical issues related to environment, safety, and health activities
- Enhance management systems supporting employee assistance activities associated with employee concerns, workforce reliability, and violence in the workplace
- Continue support for the DOE Continuity of Operations program to ensure the Department meets its mission and maintains operational viability in an emergency impacting the National Capital Region
- Fund the Federal Energy Regulatory Commission to conduct periodic structural integrity inspections of DOE dams and other water retention/detention structures

Health Programs ($47,559,000): Health Programs support domestic and international health studies including the Former Worker Program (a nationwide program of medical screening to identify work related health effects) and studies to investigate and identify work-related injury and illness in DOE workers and the public surrounding DOE sites. The benefits of these projects and programs include discovery and documenting health effect outcomes that provide the

scientific basis for national and international worker protection policy and standards. These radiation protection standards and practices, in turn, provide levels of protection appropriate for the risk posed to workers by hazards present at DOE sites. In FY 2007, 10,000 medical screenings were performed through the National Supplemental Screening Program and individual site-specific cooperative agreements managed by HSS. The same number of screenings is expected to be performed in FY 2008 and FY 2009. In FY 2008, HSS published a status report on the Former Worker Medical Surveillance Program and, in cooperation with the grantee service providers, initiated a review of the program to enable more former workers to receive program benefits. The FY 2009 budget request provides for HSS to:

- Continue implementing the Former Worker Medical Surveillance Program by conducting 10,000 medical screenings to identify potential health issues. This program has screened over 51,000 individuals to date and will continue its important efforts with greater coordination and outreach
- Provide rapid medical expertise, response, and physician training in response to accidental exposure to radiation via the Radiation Emergency Accident Center and Training Site
- Collect and analyze medical and industrial hygiene data on current workers exposed to beryllium, plutonium, and other hazards
- Implement the health-related aspects of the Human Reliability Program designed to ensure certain individuals who occupy positions affording access to certain materials, nuclear explosive devices, facilities, and programs meet high standards for trustworthiness, dependability, and physical and mental reliability
- Continue conducting studies to determine the effect of DOE operations on surrounding populations and communities

- Strengthen pandemic influenza preparedness planning
- Conduct international health and environmental monitoring programs associated with:
  - the atomic blasts above Japan - Radiation Effects Research Foundation
  - assist the Marshall Islands with resettlement, medical surveillance, and cancer treatment
  - the accidental dispersal of radioactive materials in Palomares, Spain (FY 2009 marks the end of the Department's financial commitment for this activity)
  - the health of workers of and communities near a nuclear weapons production facility in Russia

Employee Compensation Program ($4,500,000): This activity funds DOE's efforts in support of the implementation of the Department of Labor (DOL) Energy Employees Occupational Illness Compensation Program Act (EEOICPA). DOE assists DOL, the National Institute of Occupational Safety and Health (NIOSH), and the Advisory Board on Radiation and Worker Health by providing access to all available records and information needed to support claims filed by DOE contractor employees, and to enable DOL to fulfill its responsibilities. In FY 2007, DOE responded to almost 18,000 record requests from DOL and NIOSH. The Department expects to receive this same level of requests in FY 2008 and FY 2009. The FY 2009 budget request provides for HSS to:

- Provide DOL, the NIOSH, and the Advisory Board on Radiation and Worker Health, access to all available records and information needed to support such claims in a timely manner
- Maintain continuous communication and coordination with DOL and NIOSH through weekly conference calls and periodic meetings with the President's Advisory Board on Radiation and Worker Health

- Work with line management to identify Field contacts to improve program implementation
- Increase efforts to recover records that potentially would assist workers / former workers in EEOICPA claims
- Support DOL initiative to develop a site exposure matrix detailing the hazards and potential resulting illnesses for each DOE site

Safety and Security Training ($16,656,000): Funding supports development and maintenance of the proficiency and competence of DOE safety and security personnel through standardized training, education, and professional development services. Funding also provides for the conduct of workforce analyses and career development programs required for the protection of the environment, safety, and health of the public, the Departmental workforce, and critical assets and national security. The DOE National Training Center, in Albuquerque, NM, is the designated DOE Center of Excellence for safety and security training and the primary resource for performing these functions. In FY 2007, the NTC opened the Integrated Safety and Security Training and Evaluation Complex designed to replicate DOE facilities to provide students with hands-on, performance-based training in a simulated environment. In FY 2007 and 2008, the National Training Center developed and implemented safety and security professional development and executive leadership training programs. The FY 2009 budget request provides for HSS to:

- Increase focus on safety and security training interface, based on the safety and security expertise within HSS
- Enhance the Tactical Response Force courses by providing performance-oriented training
- Conduct professional development courses emphasizing leadership and management

- Conduct safety and security training needs assessment surveys to identify training requirements for new security and/or safety technologies
- Enhance safety training Department-wide by developing and presenting 10 new safety courses
- Expand safety awareness for the Department's senior executives through Nuclear Executive Leadership Training

Security Operational Support ($12,652,000): Security Operational Support activities provide technical expertise to support the implementation of Department-wide security requirements. HSS initiated a review of all security and safety directives (orders and manuals) to identify drivers, eliminate unnecessary requirements, and shift toward performance-based requirements to provide meaningful, clear, concise directives that are not overly prescriptive or duplicative. HSS examined and evaluated innovative vulnerability assessment methodologies and techniques to update processes that result in a more effective evaluation of a site's security posture. The FY 2009 budget request provides for HSS to:

- Continue evaluation of the Design Basis Threat (DBT) Policy and security directives
- Enhance rules of engagement in support of force-on-force performance exercises and for response to security events
- Maintain the security aspects of the Human Reliability Program
- Continue support for sharing methods and products to satisfy regulatory security requirements through the Security Awareness Special Interest Group
- Maintain security-related data systems, e.g., Safeguards and Security Information Management System

- Continue support for the Foreign Ownership, Control or Influence and Foreign Visits and Assignments programs and associated data management systems
- Maintain the Nuclear Materials Management and Safeguards System (NMMSS) and other nuclear and radiological material tracking programs in support of DOE operations, international treaties, and Nuclear Regulatory Commission initiatives
- Continue implementation of the Elite Protective Force Initiative
- Provide risk management, vulnerability assessment, and security system performance evaluations, verifications, and validations for identification and clarification of threats to Departmental assets
- Continue technical enhancements to the security risk management framework and processes to promote cost-effective Departmental objectives

Headquarters Security Operations ($25,509,000): Headquarters Security Operations supports the security protective force and systems designed to provide protection of DOE Headquarters facilities and assets. In FY 2007 and 2008, physical security barriers and equipment at Headquarters facilities located in Washington, D.C. and Germantown, MD, were enhanced. In addition, HSS has begun to replace and upgrade access control equipment to meet HSPD-12 requirements. The FY 2009 budget request provides for HSS to:

- Conduct physical protection and access control operations and programs for DOE activities in the National Capital Area (Washington, D.C. and Germantown, MD)
- Perform Technical Surveillance Countermeasures (TSCM) Program activities for DOE Headquarters and contractors in the greater Washington, D.C. area
- Maintain security alarms and access control systems

- Conduct security briefings for DOE federal and contractor employees; other personnel granted DOE access authorizations, and non-DOE personnel granted unescorted access to DOE Headquarters facilities

Security Technology Development and Systems Deployment ($14,796,000): The Security Technology Development and Systems Deployment activity provides technology-based solutions to known security vulnerabilities throughout the DOE complex as an alternative to costly increases in manpower needed to implement the DBT Policy, and provides technologies to counter threats for which no current defensive capability exists. The activity identifies and evaluates commercial and military technologies to ensure that system performance is commensurate with operational safety and security requirements before such technologies are purchased and deployed to protect critical national security assets. Funding provides for the modification of existing technologies to meet site environmental and system operability requirements, deployment of technologies, training and technical assistance to meet security expectations in the most cost-effective manner possible. Funding also provides for deployment data generation and distribution, including safety and software certifications, performance test metrics, procurement and lifecycle costs, tactical impacts, training materials, and other lessons learned, essential for safe and effective deployment.

Classification, Declassification and Controlled Information ($11,178,000): This activity ensures that the Department meets its statutory responsibility to implement the U.S. Government-wide program to classify and declassify nuclear weapons-related technology (e.g., Restricted Data and Formerly Restricted Data), and to implement the requirements of Executive

Order (E.O.) 12958 to classify other information that is critical to the national security (e.g., National Security Information). This program also identifies information controlled under statute to protect national security and other governmental, commercial, and private interests. Funding provides for the training and certification of DOE and other U.S. Government Department and Agency personnel. Funding also provides for the final review of classified DOE documents and documents with DOE equities from all U.S. Government Departments and Agencies requested under the Freedom of Information Act (FOIA) and under mandatory provisions of E.O. 12958 to ensure that classified and other controlled information is identified and protected from unauthorized release to the public. Other U.S. Departments and Agencies are prohibited from conducting such reviews under 10 C.F.R. Part 1045. In FY 2007 and 2008, significant reductions in the backlog of classification reviews of FOIA and mandatory requests were achieved.

Security Investigations ($35,206,000): This activity manages funding for background investigations to provide access authorizations to DOE federal and contract personnel who, in the performance of their official duties, require access to classified information or certain quantities of special nuclear material. Background investigations are required by Section 145 of the Atomic Energy Act of 1954, as amended, and E.O. 12968, Access to Classified Information. The investigations are performed and access authorizations granted in accordance with 10 C.F.R. Part 710, *Criteria and Procedures for Determining Eligibility for Access to Classified Matter or Special Nuclear Material.* Beginning in FY 2009, HSS will allocate funding to each processing DOE personnel security office based on projected costs. If actual requirements exceed the HSS allocation in any given fiscal year, the landlord/program offices will be responsible for providing

the additional funds. The centralized management of access authorizations and related data is performed in a cost-effective, efficient manner using electronic databases and Internet-capable tools that constitute the electronic DOE Integrated Security System (eDISS+). These electronic tools support and track the adjudication process from the beginning to the disposition of the access authorization request. Background investigations are performed by the Federal Bureau of Investigation (FBI) or the Office of Personnel Management (OPM), as required by law or DOE requirements. This activity also provides support for performing evaluations, preparation of decision packages and associated correspondence by the Office of Departmental Personnel Security. Professional level support is also provided to Headquarters Clearances adjudications (case reviews and analysis and conducting interviews), and other support such as court reporting and consulting physicians on an as needed basis.

Program Direction ($99,597,000): Program Direction provides the salaries, benefits, travel, working capital fund and other related expenses for the 398 federal employees as well as other resources and associated costs required to support overall direction and execution of HSS programs. As a result of a skills mix evaluation and the use of early retirement and buyout authority, HSS has been able to reduce its FY 2009 FTE allocation by 39 compared to the FY 2008 level. Program Direction provides for implementation of independent oversight activities that evaluate the Department's performance in safeguards and security; cyber security; emergency management; environment, safety, and health; and other subject areas as directed by the Secretary and Deputy Secretary. Funding also supports the activities of the Departmental Representative (DR), which provides liaison support for DOE to the DNFSB. DR also provides the leadership necessary to maintain DOE's Facility Representative Program, a proactive

program focused on ensuring that work throughout the Department is accomplished in a safe and environmentally responsible manner.

Specialized Security Activities ($162,926,000): Funding provides for the identification and communication of information necessary to ensure adequate protection of the Department's national security assets.

HSS Priorities

As the Chief Health, Safety and Security Officer, I am constantly aware of the vital role and significant responsibilities assigned to HSS to ensure the health, safety, and security functions of this Department. Last year when I testified before you, I identified priorities for HSS to ensure we meet our commitment to the Department and our Nation. We have remained focused on those priorities and will continue to pursue initiatives to further strengthen the Department's safety and security posture in FY 2009. Those priorities include:

- Continuing to improve the quality and timeliness of safety and security policies and requirements
- Enhancing worker health and safety based on priorities developed from operating experience, health studies and surveillance data, independent oversight results, enforcement activities, and stakeholder feedback
- Improving Federal expertise in the area of line management oversight of field operations
- Improving issues management to provide a foundation for continuous improvement and preventing recurrences of adverse events
- Improving worker health, safety, and security interface

- Continuing to lead and coordinate Departmental efforts in the deployment and evaluation of security technologies with the support of Departmental organizations to provide cost effective solutions for implementing the Design Basis Threat Policy and necessary security enhancements
- Strengthening the management and delivery of the Former Worker Medical Screening and EEIOCPA programs
- Continuing and enhancing independent oversight and enforcement activities

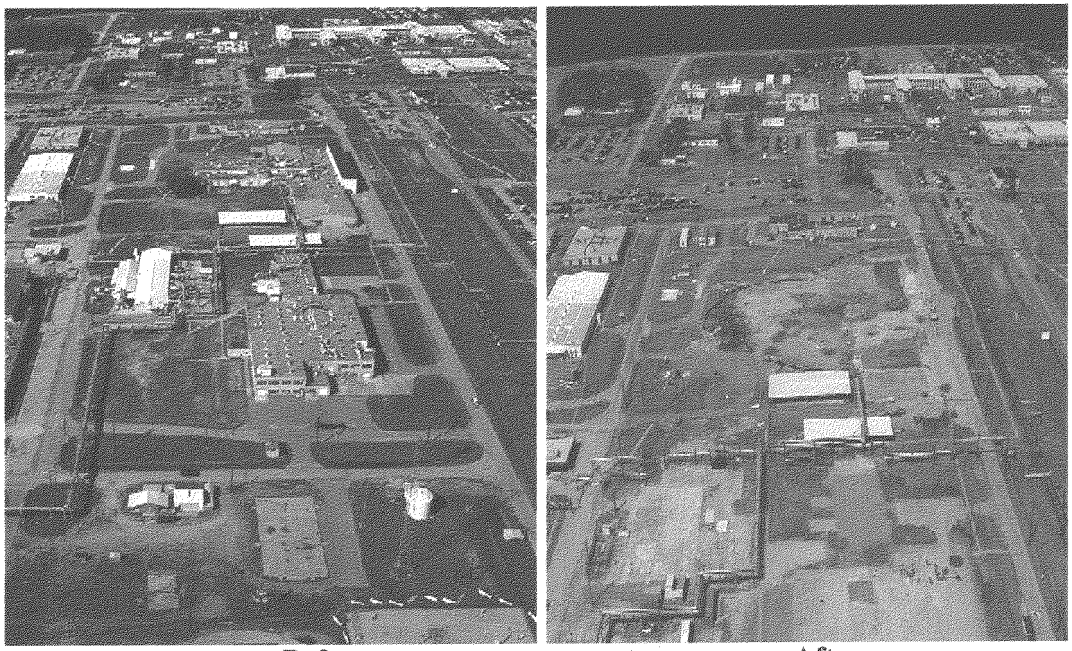
Concluding Remarks

Madam Chairman and members of the subcommittee, the Secretary of Energy created HSS to strengthen the worker health, safety, environment, and security functions within the Department. Since its creation 18 months ago, HSS has received strong and continuous support from the Secretary, the Deputy Secretary, and others in the Department's leadership. We have made significant strides towards improving the health, safety, environment, and security functions of the Department including better alignment of responsibilities associated with these functions. We are confident that with the continued support of DOE management, our stakeholders, and Congress, we can expand on the accomplishments and further strengthen the Department's health, safety, environment, and security functions. This will result in increased assurance that all DOE workers, the public, and our national security assets are both safe and secure.

DOCUMENTS SUBMITTED FOR THE RECORD

MARCH 12, 2008

Savannah River Site M-Area



Before

After

EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

www.em.doe.gov

Hanford Site River Corridor
300 Area – January 2008

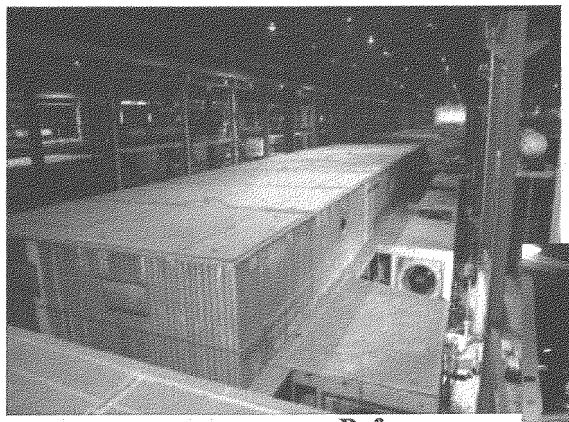
✕ Complete ✕ In Progress

EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

www.em.doe.gov

Removal of Gaseous Diffusion Converters and Equipment from the 38-Acre K-31 Building at the Oak Ridge East Tennessee Technology Park



Before

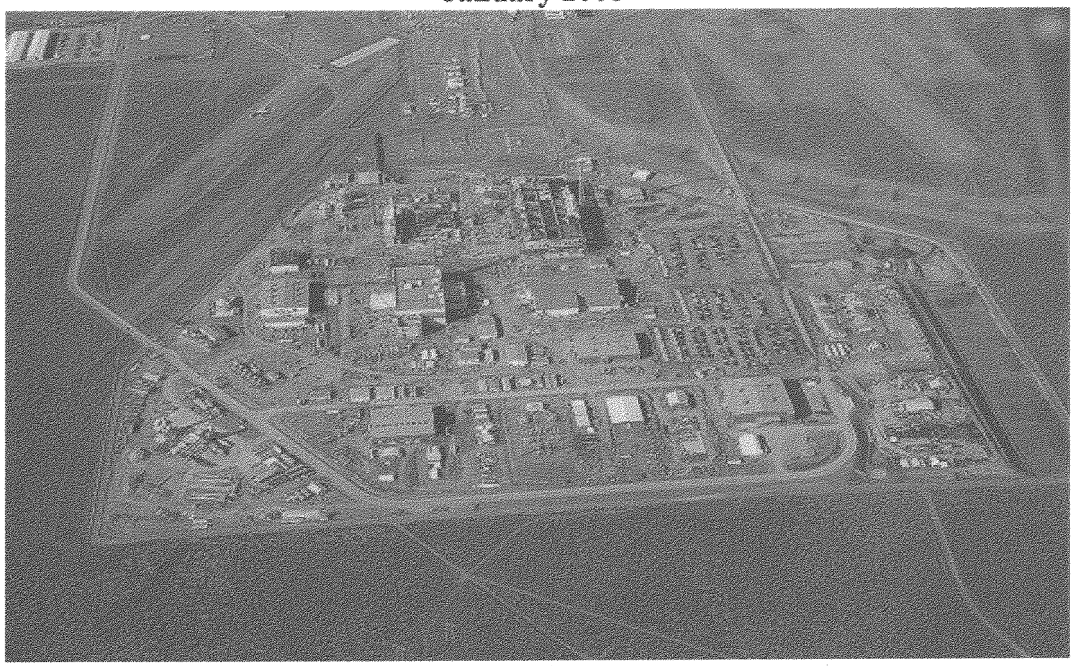
After

EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

www.em.doe.gov

Hanford Waste Treatment and Immobilization Plant
January 2008



*E*M *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

www.em.doe.gov

WITNESS RESPONSES TO QUESTIONS ASKED DURING THE HEARING

MARCH 12, 2008

RESPONSES TO QUESTIONS SUBMITTED BY MR. FRANKS

Mr. TOBEY. With respect to the work done by my organization, within the Office of Defense Nuclear Nonproliferation, the Material Protection Control and Accounting (MPC&A) program has worked with Russian nuclear sites to develop MPC&A systems with effective cyber security. This work also includes training on information security. These systems are generally not internet based and therefore, as designed, inherently more secure. [See page 24.]

General SMOLEN. The Department of Energy (DOE) supplies radioisotope power systems (RPS) for the National Aeronautics and Space Administration's (NASA) space science and exploration missions and for national security applications for more than four decades. These unique power systems convert heat from the decay of plutonium-238 (Pu-238) into electric power and provide heat for missions over long periods of time under remote, harsh conditions. The inventory of domestic Pu-238, last made at the Savannah River Site in 1988, is nearly exhausted. DOE has a contract with Russia, the only international supplier of Pu-238, to purchase the remaining available inventory; like the United States, Russia ceased production of Pu-238 and would require investment to reestablish their own production capability.

Relevant agencies are working together to evaluate the current status of potential Pu-238 production needs, issues, and costs. Based on NASA's current projected mission requirements, the remaining available inventory will be exhausted by 2015. The earliest that a production capability could be established based on proven processes is approximately seven years after receipt of capital acquisition funds. DOE continues to produce radioisotope power systems using existing infrastructure and the remaining Pu-238 fuel. [See page 26.]

QUESTIONS SUBMITTED BY MEMBERS POST HEARING

MARCH 12, 2008

QUESTIONS SUBMITTED BY MS. TAUSCHER

Ms. TAUSCHER. The House-approved FY 2008 defense authorization bill contains a provision establishing a congressionally-appointed commission to evaluate U.S. strategic posture for the future, including the role that nuclear weapons should play in the national security strategy. What key questions should the commission consider?

General SMOLEN. The Commission should identify the basic principles for restoring a national consensus on strategic policy and, in particular, on the role and mission of U.S. nuclear weapons in the post-Cold War era. These principles would help to guide the next administration's review of its nuclear posture. With regard to the mission of the National Nuclear Security Administration, the Commission should examine the merits of a broad spectrum of warhead life extension strategies, including including warhead refurbishment, warhead component reuse, and warhead replacement, for managing the risks inherent in assuring a safe and reliable nuclear stockpile for the foreseeable future without nuclear testing. In addition, the Commission should offer its views regarding transformation of the large, inefficient and deteriorating nuclear weapons complex that we inherited from the Cold War to a modern national security enterprise able to address a broad range of national security issues beyond its core nuclear weapons mission.

Ms. TAUSCHER. Does the NNSA science-based Stockpile Stewardship Program (SSP) provide all the tools needed by NNSA and the weapons laboratory directors to annually certify the nation's nuclear weapons as safe, secure and reliable? What are the gaps, if any?

General SMOLEN. The Stockpile Stewardship Program (SSP) has assembled world leading tools to resolve uncertainties in our predictive models for nuclear weapons performance. Most of the major experimental scientific facilities are complete or will be complete very soon, plus the Advanced Strategic Computing Program has developed significant computational tools. This program in concert with Directed Stockpile Work has already been successful in; making quantitative statements on pit aging, closing significant finding investigations, annually assess the nuclear stockpile, and in enabling life extension programs. NNSA has a plan to use these tools, both computational and experimental, to resolve our key uncertainties that did not need to be understood during testing, and remained after the testing moratorium. Anticipated future needs include continued increases in our computational capability and capacity computing and improved physics models. Unanticipated needs may arise from the planned work on our major experimental facilities (NIF, Z, Omega, DARHT and LANSCE) over the next five years. However, as we continue to move further and further away from the period of full scale nuclear testing and as the stockpile ages, the level of uncertainty in reliability will grow over time which may increase the demands on the SSP to develop new and innovative ways to certify the legacy stockpile.

Ms. TAUSCHER. Recent testimony by military officials and others has suggested that continuing to extend the life of our current stockpile is not sustainable over the long term. Does NNSA currently assess the SSP as capable of enabling annual assessment and certification?

General SMOLEN. The present and planned stockpile stewardship program of record is capable of enabling annual assessments and certification. These assessments have clearly identified issues with the stockpile that motivate life extension programs, and other modifications to systems. Many of these issues are identified through surveillance or by the application of modern tools. As issues arise where adequate tools and capabilities do not exist, the research and development part of the SSP is adjusted to provide those needs in a timely fashion. To date, the stockpile stewardship program has successfully extended the lifetime of the stockpile through a number of Directed Stockpile Work programs, including the closure of surveillance driven Significant Finding Investigations. The annual assessment letters by the Laboratory Directors document issues that we are addressing.

Ms. TAUSCHER. How do you characterize your confidence in the nuclear stockpile? Please describe any risks to the stockpile that might erode that confidence over time.

General SMOLEN. [The information referred to is classified and retained in the committee files.]

Ms. TAUSCHER. Mindful that we are in open session, please give specific examples of the limits the Stewardship Program will confront in the coming years. Please indicate the time lines involved with these limitations (e.g., when they will be manifest).

General SMOLEN. In the future, we would predict stewardship challenges similar to those we have already seen—aging components and materials, unavailable materials; deviations from designs and new results from experiments/modeling. Additionally, we will anticipate modifications to keep the stockpile current within Department of Defense systems, increased requirements for safety and security, and we have to have a responsive infrastructure to meet any changes in the geopolitical environment. As yet, we have identified no limits where stockpile stewardship would fail, however, we are developing increased understanding of aging and other phenomena to be sure that the stewardship program can identify issues before they could become a limiting factor. Significant Life Extension Programs or preferably weapon modernization in concert with a strong science, technology and engineering base, is the best course to ensure no limitations are reached.

Ms. TAUSCHER. What steps other than RRW can NNSA pursue to enhance the safety, security and reliability of the current stockpile?

General SMOLEN. Consistent with the lifetime assessment concerns presented in the Life Extension Options process and as part of future life extension program (LEP) concept and feasibility studies outlined in the Production and Planning Directive, the NNSA will evaluate opportunities to enhance the safety and security of existing weapons in the current stockpile. A subset of the technologies that were to be included in RRW, as well as other advances in surety technology, could be retrofitted into weapons during the LEP process. Possibilities include using more modern stronglinks to prevent unauthorized signals from getting to the fireset, using fiber-optic cables to eliminate electro-static discharge or lightning concerns, or even replacing pits which use sensitive conventional high explosive with pits from retired systems that use safer insensitive high explosives. The benefits of these enhancements must be weighed against impacts on associated Department of Defense (DOD) weapon delivery systems (i.e., added weight, increased volume, or reduced operational performance) as part of the feasibility studies.

The RRW program baseline included several enhanced, modern safety and security features. Attempting to incorporate these RRW options into legacy weapons could compromise the certification basis and potentially raise concerns about the performance and reliability of the modified legacy warhead configurations. This approach has risks, and the need for nuclear testing to validate significant design changes to legacy nuclear packages and recertify these weapons cannot be ruled out at this time. The Advanced Certification Campaign is working to reduce those risks to some degree. This program seeks to understand in a quantitatively rigorous way, the design ties between a modified or untested design and the tested design database. Without the added margin afforded by RRW, added uncertainty in reliability assessments caused by design changes limits the ability of the Stockpile Stewardship tools to certify new features added to old weapons.

Ms. TAUSCHER. Are there limits on the Life Extension Programs in terms of their scope and ability to meet military requirements? Are these technical, operational, regulatory, statutory, or a combination? Please give examples.

General SMOLEN. A combination of constraints imposes limits on what can be accomplished through Life Extension Programs (LEPs). The current approach to legacy stockpile sustainment through LEPs is focused on minimum technical excursions from the original design. A fundamental objective of the LEP approach is to meet the original military characteristics (requirements) that were established with the DOD. Most of the legacy warheads were highly optimized systems, trading margin for more yield and reduced weight, and were all validated by nuclear testing.

LEPs are becoming increasingly more difficult and costly in order to replicate materials and outdated or non-operational processes and technologies that were used to meet original warhead specifications. In some instances, materials or processes have become obsolete because of their hazardous nature and are no longer available in industry due to increased regulatory constraints and cost. Each refurbishment introduces changes that take the designs further from the tested configurations, increasing uncertainty in weapon reliability. As these designs continue to change, NNSA's ability to ensure confidence in the legacy stockpile's safety and reliability over the long-term, without underground nuclear testing, will become difficult.

Ms. TAUSCHER. What is the status of the study NNSA has been conducting for the Air Force on the B61 warhead life extension?

General SMOLEN. On March 25, 2008, the Nuclear Weapons Council (NWC) approved a joint Air Force/National Nuclear Security Administration (NNSA) study, to be completed within 90 days, on whether to proceed with a comprehensive nuclear and non-nuclear Life Extension Program (LEP) of the B61 warhead. Prior to the NWC decision, the NNSA program-of-record was for a limited non-nuclear refurbishment of the B61 warhead. The NWC also requested the Air Force and NNSA to begin planning for entry into the Phase 6.2/6.2A study no later than September 30, 2008. Consistent with the requested joint study and in close cooperation with the Air Force, NNSA efforts are currently focused on determining the Phase 6.2/6.2A study scope, updating user requirements, and estimating the complete study cost. Complementing the joint B61 LEP study, NNSA has begun a 60 day technical risk assessment study to investigate the potential reuse of an alternate pit (this candidate was in the stockpile as of December 2, 2002). The pit reuse assessment study will be completed with Lawrence Livermore National Laboratory in order to maximize design flexibility, with an emphasis on additional safety, security and use control features.

Ms. TAUSCHER. What is the current NNSA plan for maintaining the capability offered by the B61?

General SMOLEN. NNSA has been addressing B61 performance, aging, and reliability concerns as they arise through approved bomb alterations (Alts). Currently, NNSA is in Phase 6.6 Full-Scale Production for a series of alterations, including a canned subassembly Life Extension Program (LEP) on the B61–7/11 (Alt 357) and a spin rocket motor refurbishment on the B61–7/11 (Alts 358/359) and B61–3/4/10 (Alt 356).

NNSA planned to continue this approach with an arming and fuzing alteration to address radar performance and neutron generator end of life concerns which was included in the Fiscal Year 2009 President's Budget. Recently, the NNSA, in partnership with the Air Force, has reconsidered this approach to B61 sustainment because of the associated life cycle costs and timeliness of fielding multiple alterations over the next decade. The new approach is to perform a comprehensive LEP addressing both non-nuclear and nuclear refurbishment. The life extension program would also include improvements in safety and use control, as well as possible consolidation of the B61 bomb family to reduce future sustainment costs. The Nuclear Weapon Council approved this approach on March 25, 2008 with the direction to begin a B61 LEP Feasibility/Design Definition/Cost Study (Phase 6.2/6.2A) study no later than September 30, 2008. NNSA is also performing an alternate pit reuse study to evaluate the technical feasibility of reusing another pit in the B61 LEP. NWC tasking allows the scope of the Phase 6.2/6.2A study to include analysis of an alternate pit if Congressional support allows.

Ms. TAUSCHER. The FY 2008 National Defense Authorization Act directed NNSA to examine the feasibility, advantages and disadvantages of reusing existing pits in the RRW program. What is the status of this assessment? Will the NNSA have the report to Congress by this summer, as required by the NDAA?

General SMOLEN. A draft of a report detailing the results of this assessment is in coordination with the appropriate Department of Energy (DOE) and Department of Defense (DOD) agencies. The Nuclear Weapons Council (NWC) consultation process has been initiated for this report in accordance with established procedures and timelines. NNSA expects to deliver this coordinated report to Congress by July 28, 2008.

Ms. TAUSCHER. The FY 2009 budget request includes $10 million for RRW, which the budget justification materials describe as funding "maturation of RRW design concepts to address questions raised by the JASONs review of RRW feasibility."

What progress toward conclusion of the "Phase 2a" (design and cost) study proposed in the FY 2008 request will the NNSA be able to achieve with the FY 2009 request?

General SMOLEN. The FY 2009 budget request of $10 million will permit maturation of some specific design features to address specific design certification issues raised by the JASON review. Specific design work would include maturation of safety and security features, some fabrication processes and material selection, including contingency design using more traditional fabrication processes. Additionally, some peer review of the proposed design may occur. No work on the development of the joint schedule or cost estimate would be done.

Ms. TAUSCHER. The FY 2009 budget request includes $10 million for RRW, which the budget justification materials describe as funding "maturation of RRW design concepts to address questions raised by the JASONs review of RRW feasibility."

What resources would be necessary to complete the RRW Phase 2a cost and design study?

General SMOLEN. The purpose of the joint Department of Defense and National Nuclear Security Administration Reliable Replacement Warhead Phase 2A Design Definition and Cost Study is to develop the detailed cost, scope and schedule baseline. Both organizations require funding in order to complete the joint study. NNSA requires $65 million to complete its portion of the activities of the joint study.

Ms. TAUSCHER. The FY 2009 budget request includes $10 million for RRW, which the budget justification materials describe as funding "maturation of RRW design concepts to address questions raised by the JASONs review of RRW feasibility."

Describe the new Advanced Certification program and how it is different from other Science and Engineering Campaign activities intended to develop the scientific and engineering capabilities to support certification without testing?

General SMOLEN. The Science and Engineering Campaign activities provide better tools, models and technologies which are the enablers of our assessment and certification processes that are conducted under Directed Stockpile Work (DSW). The Advanced Certification sub-program is developing the methodologies needed to support scientifically rigorous assessment and certification process, and is obviously linked in its goals, but different in its approach. As constructed, the advanced certification sub-program contains the following examples of activities that were not previously included in the campaigns:

(i) Generation of a strategic plan for certification and assessments based on the planned improvements in our Stockpile Stewardship Program tools, models and technologies;

(ii) Development of rigorous definitions of underground test near neighbors; and

(iii) Experiments and calculations to determine and resolve certification issues of surety features prior to their inclusion in DSW activities.

A thorough description of the work in the advanced certification campaign is contained in the report submitted to Congress in May 2008.

Ms. TAUSCHER. The NNSA identified its Preferred Alternative for Complex Transformation in a Supplemental Programmatic Environmental Impact Statement (SPEIS) released last month. The Preferred Alternative identified in the SPEIS refines the Complex 2030 report NNSA submitted to Congress a little more than a year ago, which like the SPEIS noted that NNSA expects to maintain a level Directed Stockpile Work budget. NNSA has said it will rely on initiatives such as facility and staffing reductions and new business practices to pay for transformation. NNSA has stated Transformation must take place with or without RRW, but has stated that RRW would enhance the responsiveness of the complex. NNSA has stated that the cost of RRW could be offset by fewer planned Life Extension Programs (LEPs) and deeper reductions in the size of the stockpile.

What legacy weapons arc candidates for near term reduction or elimination?

General SMOLEN. The DOD, in conjunction with the NNSA, must sustain the nuclear weapons stockpile as directed in the President's annual Nuclear Weapons Stockpile Plan (NWSP). In this regard, the DOD is the lead agency for definition of the nuclear weapon stockpile size and mix of weapon types necessary to meet war planning, logistics, and maintenance requirements to meet the NWSP. Therefore, the DOD would be the appropriate agency to identify any legacy warheads that can be reduced or eliminated in the near term.

Ms. TAUSCHER. The NNSA identified its Preferred Alternative for Complex Transformation in a Supplemental Programmatic Environmental Impact Statement (SPEIS) released last month. The Preferred Alternative identified in the SPEIS refines the Complex 2030 report NNSA submitted to Congress a little more than a year ago, which like the SPEIS noted that NNSA expects to maintain a level Directed Stockpile Work budget. NNSA has said it will rely on initiatives such as facility and staffing reductions and new business practices to pay for transformation. NNSA has stated Transformation must take place with or without RRW, but has stated that RRW would enhance the responsiveness of the complex. NNSA has stated that the cost of RRW could be offset by fewer planned Life Extension Programs (LEPs) and deeper reductions in the size of the stockpile.

What confidence do you have that cost savings from facility and staffing reductions, business process improvements, and materials consolidation will adequately pay for Transformation? If such reductions will pay only in part for transformation, from where will NNSA draw the remainder of the required funds?

General SMOLEN. The preferred alternative for Complex Transformation will offer the lowest overall cost and risk in the longer term. We propose to implement transformation within our existing budget projections, assuming we maintain a weapons budget adjusted for inflation and that we are allowed to re-invest the savings we achieve, rather than applying them to other budget shortfalls.

We propose to pay for transformation through a combination of the following:

- Infrastructure savings through footprint reductions, replacement of buildings that have been retained long past their economic lifetime, and updated cost sharing models;
- Reduced overhead costs through contract reforms, improved risk management strategies, greater business practice uniformity, improvements in product assurance processes, and commodity purchase savings through a supply chain management center;
- Reductions in security costs enabled by Special Nuclear Materials (SNM) consolidation and use of modern, hardened facilities;
- Savings from mission consolidations and elimination of redundant experimental facilities;
- Collaborating with DOD on alternative stockpile augmentation strategies;
- Reduced overall staffing supporting weapons activities through natural attrition and transition to other national security missions; and
- Optimization of a reduced federal staff enabled by contract reform and improved line oversight of contractor assurance systems.

In short, Complex Transformation forces us to reform our current business practices and consolidate the nuclear weapons enterprise. Our objective is to retain mission work (e.g., Directed Stockpile Work and Campaigns) at as high a level as possible while we cut overhead costs. If these cost savings are not available to pay for transformation, we will need to re-align all existing work to pay for essential transformation actions. The Department of Defense Cost Analysis Improvement Group (DOD/CAIG) completed a recent analysis of our modernization plans and estimated that it could be completed with a 5% adjustment to our existing funding plan.

Ms. TAUSCHER. The NNSA identified its Preferred Alternative for Complex Transformation in a Supplemental Programmatic Environmental Impact Statement (SPEIS) released last month. The Preferred Alternative identified in the SPEIS refines the Complex 2030 report NNSA submitted to Congress a little more than a year ago, which like the SPEIS noted that NNSA expects to maintain a level Directed Stockpile Work budget. NNSA has said it will rely on initiatives such as facility and staffing reductions and new business practices to pay for transformation. NNSA has stated Transformation must take place with or without RRW, but has stated that RRW would enhance the responsiveness of the complex. NNSA has stated that the cost of RRW could be offset by fewer planned Life Extension Programs (LEPs) and deeper reductions in the size of the stockpile.

The SPEIS makes plain that much complex transformation is necessary regardless of what happens with RRW. What elements of complex transformation are tied to RRW?

General SMOLEN. Complex Transformation must take place with or without RRW. While we are meeting safety, security, and basic DOD requirements today, the present Complex is unsustainable. Special nuclear materials (SNM) are present at more sites than necessary. In a post 9/11 world, security has been enhanced and SNM is becoming more and more expensive to secure. Many old facilities support a large Cold War-era stockpile no longer necessary or affordable. Without transformation, increasing funds will be required to secure a greater perimeter than needed, maintain more square footage than is efficient, and sustain out-dated facilities well-past their economic lifetime.

If the RRW strategy is approved by a future administration and Congress, the RRW design concepts would affect complex transformation in several ways. First of all, the RRW concepts employ fewer exotic and hazardous materials than the legacy stockpile. If the LEP strategy is pursued, processes involving such hazardous materials as beryllium and conventional high explosives, among others, would have to be continued or re-established as the components in the legacy weapons require remanufacture. Secondly, introduction of improved surety features, including insensitive high explosives and fire-resistant pits, will lead to improvements in the efficiency and responsiveness of the production plants compared to an LEP-only approach.

This does not mean that we need fewer production facilities or that they would be significantly smaller in square footage because of RRW. However, we will be more efficient, responsive, and environmentally-sensitive using an RRW strategy.

In addition, RRW would likely enable a significantly reduced stockpile by reducing the need for "hedge" warheads.

Ms. TAUSCHER. The FY 2009 budget request includes $77.4 million for Transformation Disposition. How does NNSA plan to coordinate efforts under the new

Transformation Disposition program with the Office of Environmental Management? Do NNSA and EM have a plan for coordination of D&D and cleanup activities at NNSA sites?

General SMOLEN. Transformation Disposition (TD) is the principal funding source to achieve footprint reduction within the National Nuclear Security Administration (NNSA). The TD program has committed to eliminating 5,000,000 gross square feet through transfer, sale, or demolition by FY2017 and it is anticipated that a portion of the TD funding viill be used to deactivate and prepare process-contaminated facilities for transfer to the Office of Environmental Management (EM) and final disposition. DOE currently uses the transfer process in DOE Order 430.1B, Real Property Asset Management, which outlines the acceptance criteria for transferring facilities from one DOE program to another. The NNSA and EM are in the coordination phase on what process contaminated excess facilities meet acceptance criteria for transfer.

Ms. TAUSCHER. Are the design specifications for the Chemistry and Metallurgy Research Replacement (CMRR) facility or the Uranium Processing Facility (UPF) facility dependent on decisions relating to the long-term stewardship of specific stockpile weapons? To the extent they are, how does the NNSA intend to account for these dependencies while moving forward with design of both the CMRR and the UPF? Specifically, would the design of UPF change substantially if the secondary components of legacy weapons could be reused, at least in part?

General SMOLEN. Complex Transformation must take place regardless of the size or composition of the future stockpile. For the range of future stockpiles that NNSA and DOD contemplate, maintaining required capabilities has a greater impact on the minimum size of our facilities than throughput capacity. The following discussion relates to the Preferred Alternative in our ongoing National Environmental Policy Act actions.

UPF: The design considerations that drive the configuration of the UPF relate primarily to its capability requirements, recognizing that UPF capabilities support weapons production fabrication efforts and other programs, including dismantlements, surveillance, certification, uranium blend-down for non-proliferation reasons, and the supply of highly enriched uranium for naval and research reactors. The prospective footprints for a UPF that would support the current stockpile versus the size for a UPF that fabricated only *one* weapon per year differ by only a few percent. As for the composition of the stockpile, the design of UPF would not be significantly affected by the selection of legacy systems, new weapons designs, a combination of the two, or most contemplated secondary reuse scenarios. The reuse scenarios that would result in significant size reductions in UPF would require that the hypothetical future stockpile be composed *entirely* of reused secondaries; however, these scenarios are not considered viable national security alternatives because no future production capability would be available.

CMRR: CMRR would be part of an integrated set of facilities at Los Alamos National Laboratory (LANL) to assure continuity of a plutonium capability for the nation, which includes pit fabrication, pit surveillance, and pit certification as well as non-defense programs actinide research, development and production. These facilities at LANL would be able to support the current pit production mission need, which is continuity of capability, and the longer-term need for a modest pit production rate, where the pits could be legacy designs, new designs, or a mixture of the two.

Based on the facts above, NNSA is confident that many aspects of Complex Transformation can proceed while stockpile requirements continue to be refined. Proceeding apace with the two projects' designs avoids delays, whose collective delay costs and lost opportunity savings run in the hundreds of millions of dollars per year.

Aside from Complex Transformation, design specifications for both CMRR and UPF are also intended to improve nuclear safety beyond what is possible in the current facilities. The need for such safety improvements has been repeatedly advised by the Defense Nuclear Facilities Safety Board as noted in their *Eighteenth Annual Report to Congress* (February 2008).

Ms. TAUSCHER. Los Alamos National Lab (LANL) continued to experience security breaches over the past year, despite a new contracting team. What steps has NNSA taken to address security at LANL? What steps have you taken with the management and operations (M&O) contractor to improve security? What steps has the contractor taken?

General SMOLEN. While we continue to be concerned with the frequency of security incidents involving classified materials, we believe that Los Alamos National Security LLC (LANS), the new contractor for the laboratory, is making significant security improvements at Los Alamos. In the year since the Secretary issued his

Compliance Order (CO) regarding classified material protection to LANS pursuant to 10 C.F.R. Part 824, LANS has made substantial progress towards completing all 14 actions required by the Compliance Order. All 14 requirements are enforceable under 10 C.F.R. 824 with the potential for fines of up to $100,000 per day per requirement.

As part of its effort to satisfy the Compliance Order, LANS developed an additional comprehensive corrective plan, "Security Compliance Integrated Corrective Action Plan" (SCICAP). The SCICAP contains 27 activities to improve security plans and procedures, security cultural and training, and the self-assessment program for classified material protection. LANS has reached back to the four entities that are its members to obtain security and management expertise in order to develop a high quality plan. While these improvements cannot guarantee that LANS will not have additional incidents, they indicate that LANS is improving its security procedures. In addition, under the new performance fee structure for LANS' contract it is evaluated on its security performance and award fees can be used to hold LANS accountable for its performance in this critical area.

Preventing additional security violations at LANL rests on LANS' ability to sustain the improvements it has made on strong federal oversight of the LANS' security program. NNSA has recently selected a new federal security manager for LANL and it will be providing additional resources to the new manager to ensure he has the staff and technical assistance necessary to provide effective oversight. The Department's Office of Independent Oversight will conduct a comprehensive inspection of both the Federal office and the LANS starting in August 2008. NNSA will be paying close attention to this inspection and will provide additional assistance to address any issues or concerns identified by the inspection team.

Ms. TAUSCHER. The FY 2008 National Defense Authorization Act requires the GAO and then the NNSA to examine alternatives for managing protective forces at all NNSA and Department sites with special nuclear material. Has the GAO contacted the Department about this review? Is NNSA Defense Nuclear Security working with the Department to conduct a review?

General SMOLEN. Mr. Jonathan Gill, Assistant Director, Government Accountability Office (GAO) conducted an entrance briefing concerning the FY 2008 National Defense Authorization Act (DOE Protective Force Options: GAO Engagement 360953) on June 10, 2008. In August 2007, the National Nuclear Security Administration (NNSA), Office of Defense Nuclear Security was tasked by the NNSA Administrator to conduct an analysis and comparative survey examining several options for performing Protective Force duties at NNSA sites, including the use of an enterprise-wide contractor, Federalization of existing security employees, or a combination of the two. The "Comparative Analysis of Contractor and Federal Protective Forces at Fixed Sites" also identified benefits of standardization across the NNSA Complex, including reduction of preparation time required for response to potential work stoppages resulting from strikes. DOE is awaiting completion of the GAO study (approximately March 2009) in accordance with the FY 2008 National Defense Authorization Act prior to submitting a report within the allotted 90 days to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives.

Ms. TAUSCHER. The FY 2008 NDAA also directs NNSA to conduct an assessment of the physical and cyber security risks posed to the nuclear weapons complex and the security technologies employed against those threats, and prepare a report identifying the manner in which it prioritizes investments in physical and cyber security of the weapons complex. The report would be included in the annual Future Years Nuclear Security Plan (FYNSP). Is the NNSA working on this assessment and report?

General SMOLEN. NNSA is in the process of conducting a comprehensive assessment aligned with Congressional direction contained in the 2008 NDAA. The assessments and resulting report, covering both physical and cyber security, will be fully coordinated with the Department, to include the Health, Safety, and Security (HSS) organization. To address the physical security threats, NA-70 has tasked Sandia National Laboratories (SNL) to conduct a rigorous assessment of the threats facing the Nuclear Weapons Complex (NWC) and how NNSA utilizes both existing and emerging technologies to meet our physical security challenges. The SNL report, due for completion at the end of CY 2008, will include the following major elements:

- Provide a description of technologies deployed at each site that address physical security threats.
- Identify the methods used by NNSA to establish investment priorities.
- Provide a detailed description of how the funds identified in each program element for each fiscal year of the 5 year plan will help carry out the plan.

- Identify the strengths and weaknesses of the current NNSA process and provided recommendations for improving this process.

To address the cyber security threats, the NNSA Office of the Chief Information Officer (OCIO) has tasked our internal red team to conduct a rigorous assessment of the cyber threats facing the Nuclear Weapons Complex. The assessment will focus on how NNSA can implement existing and emerging cyber security technologies to protect and defend the technology infrastructure. The team report will be due to the OCIO at the end of CY 2008. The report will include the following major elements:

- Cyber Security Policy Implementation
- Technical and Management Controls Implementation
- Network Operations
- Web Services
- Desktop Configuration and Boundary Protection
- Wireless Services

Ms. TAUSCHER. NNSA plans for fissile materials disposition have slowed in recent years, first as a liability dispute between the U.S. and Russia delayed work, and more recently as Congress expressed reservations about proceeding with construction of the MOX Fuel Fabrication Facility at the Savannah River Site (SRS). Most recently, the FY 2008 Consolidated Appropriations Act reduced funding for the MOX facility and transferred funding for the facility to the Office of Nuclear Energy. However, a February 22, 2008 memo to Secretary Bodman from the DOE General Counsel states that the Secretary is not legally able to transfer management of the project out of the NNSA. That memo recommends an "Economy Act" to formalize continued management of the MOX project by NNSA, with funding from Nuclear Energy.

Has NNSA worked out a formal arrangement with the Office of Nuclear Energy?

Mr. TOBEY. Yes, the DOE Office of Nuclear Energy and the NNSA Office of Defense Nuclear Nonproliferation entered into a Memorandum of Agreement under the Economy Act whereby the NNSA Office of Fissile Materials Disposition manages the project on behalf of the Office of Nuclear Energy while the Office of the General Counsel analyzes whether the Consolidated Appropriations Act, 2008, effectuated a transfer of program responsibility for this project.

Ms. TAUSCHER. NNSA plans for fissile materials disposition have slowed in recent years, first as a liability dispute between the U.S. and Russia delayed work, and more recently as Congress expressed reservations about proceeding with construction of the MOX Fuel Fabrication Facility at the Savannah River Site (SRS). Most recently, the FY 2008 Consolidated Appropriations Act reduced funding for the MOX facility and transferred funding for the facility to the Office of Nuclear Energy. However, a February 22, 2008 memo to Secretary Bodman from the DOE General Counsel states that the Secretary is not legally able to transfer management of the project out of the NNSA. That memo recommends an "Economy Act" to formalize continued management of the MOX project by NNSA, with funding from Nuclear Energy.

What cost increases and schedule delays will result from the cuts to the project contained in the FY 2008 Consolidated Appropriations Act—both in direct appropriations and rescinded unobligated balances?

Mr. TOBEY. DOE is currently analyzing the MOX cost and schedule impacts that will result from the $217 million funding reduction to the MOX project (this reduction includes $100 million cut from the budget request, the rescission of $115 million and a $2 million reduction in Other Project Costs) in the Consolidated Appropriations Act, 2008.

Ms. TAUSCHER. NNSA plans for fissile materials disposition have slowed in recent years, first as a liability dispute between the U.S. and Russia delayed work, and more recently as Congress expressed reservations about proceeding with construction of the MOX Fuel Fabrication Facility at the Savannah River Site (SRS). Most recently, the FY 2008 Consolidated Appropriations Act reduced funding for the MOX facility and transferred funding for the facility to the Office of Nuclear Energy. However, a February 22, 2008 memo to Secretary Bodman from the DOE General Counsel states that the Secretary is not legally able to transfer management of the project out of the NNSA. That memo recommends an "Economy Act" to formalize continued management of the MOX project by NNSA, with funding from Nuclear Energy.

What is the current status of construction of the MOX facility?

Mr. TOBEY. Currently, the construction of the MOX facility continues to proceed on schedule and within budget. The building foundation of the MOX facility is 70%

complete and construction of several ancillary support buildings has been completed. In mid-May, the MOX facility project achieved 500,000 work hours without a lost time accident.

Ms. TAUSCHER. How much more does NNSA need to do to secure and reduce all known and unsecured weapons-grade nuclear and radiological material around the world, and what is the cost of the remaining effort in this area? Please also submit something for the record on this, in classified form if necessary. What can NNSA do to expand and strengthen the Global Threat Reduction Initiative (GTRI) and the International Nuclear Materials Protection & Cooperation (MPC&A) programs?

Mr. TOBEY. Within the Global Threat Reduction Initiative's (GTRI) mission area, there is an estimated five (5) metric tons of highly enriched uranium (HEU) and separated plutonium within civilian programs worldwide, of which 43%, or about 2.1 metric tons, has already been removed, leaving approximately 2.9 metric tons of material to be removed in the future. There are also approximately 3,300 high risk radioactive sources in other-than-high income countries that we believe need to be recovered or adequately secured in order to reduce the risk of theft or sabotage for malevolent acts; of these, 730 (22%) will have been secured by the end of FY 2008, leaving approximately 2,570 vulnerable sites to be secured in the future. Within our current approved budget projections through FY2013, we anticipate spending another $160 million to address removal of nuclear material and another $150 million to address the recovery and security of radiological sources.

The out-year budget profile contained in the President's FY 2009 budget request adequately supports securing vulnerable nuclear materials where the NNSA is currently able to work. Future priorities for GTRI include addressing security concerns at an additional 130 civilian sites possessing vulnerable nuclear and other radioactive materials that pose security concerns in the Democratic Republic of Congo, India, Libya, Malaysia, Mexico, Pakistan, Russia, Serbia, the Dominican Republic, Uganda, and the United States.

Within the MPC&A Program mission area, over 85% of sites containing nuclear warheads and material in Russia and nuclear material sites other former Soviet states have been secured, and a majority of the remaining upgrades are on track to be completed by the end of FY 2008. The MPC&A Program is also adding more detection layers at some facilities by working at outer perimeter checkpoints to increase the probability of detection, and making any necessary final adjustments in response to changing conditions and emerging threats. The MPC&A Program does not anticipate expanding work in the former Soviet Union, but will remain engaged in order to maintain mutually beneficial exchanges between security experts.

To address concerns about the security of weapons-grade nuclear material in other states, where relatively strong economies allow these countries to finance their own security systems, the MPC&A Program is engaging on nuclear security best practices. The MPC&A Program is cooperating with China to promote the adoption of modern security technologies at civilian nuclear facilities to provide a first line of defense against nuclear material theft, diversion and sabotage, and is interested in similar MPC&A cooperation in India. (Efforts to begin discussions with India have been hampered as a result of delays in concluding an agreement for peaceful nuclear cooperation under section 123 of the Atomic Energy Act of 1954, as amended.)

The MPC&A Program is also engaging internationally to strengthen MPC&A and safeguards practices globally as a long-term investment in the sustainability and viability of nuclear security in partner countries (Russia and other former Soviet states in particular) after bilateral cooperation ends. With our current approved budget projections through FY2013, we expect to spend approximately $850 million on these activities, comprising the areas where NNSA is currently able to work. However, as other opportunities arise in the future, such as further expanding radiation detection layers around Russian nuclear sites or expanding training and sustainability activities with the Russian Ministry of Defense, additional resources could be required.

Ms. TAUSCHER. Please discuss NNSA's ability to accelerate work within NNSA defense nuclear nonproliferation and possible limitations to accelerating work, if any. Please also discuss any other areas where you could do more to accelerate and strengthen programs if you had more funding.

Mr. TOBEY. NNSA's defense nuclear nonproliferation efforts are dynamic programs designed to address today's evolving proliferation and nuclear terrorism threats. Recognizing the urgency of this mission, we are working to the best of our ability to accelerate defense nuclear nonproliferation efforts across the globe. We are working to meet the accelerated timeline of existing efforts, such as those under the Bratislava Nuclear Security Initiative. Under the Bratislava initiative, we accelerated our nuclear security upgrade work in Russia by two full years. Separately, we

have accelerated the completion date for installing radiation detection devices at *all* Russian border crossings by a full six years; shut down two plutonium producing reactors in Seversk, Russia six and eight months early (with efforts underway to shut down Russia's last such reactor as much as a year early); and accelerated our research reactor conversions from the historical rate of 1.5 per year to 5 conversions in FY2006 and 6 conversions in FY2007, and we are on track for 8 in FY2008. We are also increasing our focus on work to secure civilian nuclear materials globally and working on efforts such as the Next Generation Safeguards Initiative to revitalize the technology base for international safeguards, in order to detect and deter proliferation activities worldwide.

Additionally, we are increasingly emphasizing the so-called "second line of defense" activities that complement nuclear security upgrades by providing a layered defense against nuclear proliferation should first line of defense efforts be compromised. In this regard, we are expanding and strengthening efforts such as the Megaports programs, our nuclear materials detection R&D work, and our International Nonproliferation Export Control and Commodity Identification Training, all of which help detect, deter, and interdict WMD-related materials trafficking.

There are non-resource obstacles that can delay or prevent the acceleration of these efforts in certain cases, such as bureaucratic delays and political considerations in partner countries; and technical issues and technology gaps. However, NNSA will continue to mitigate and address such limitations to execute our defense nuclear nonproliferation mission efficiently.

Ms. TAUSCHER. Can you describe NNSA's nuclear nonproliferation priorities? What are the primary areas of progress, and the main challenges facing NNSA nonproliferation efforts?

Mr. TOBEY. Our primary nuclear nonproliferation mission is detecting, securing and disposing of dangerous nuclear material worldwide. Further, our priorities are: 1) completing the Bratislava nuclear security upgrades by the end of 2008; 2) effective project management to ensure continued success of plutonium production prevention and disposition programs; and, 3) ensuring that our strategy meets the evolving threat we face. The third priority is resulting in a shift of emphasis from nuclear weapons material security work (which we are completing) to second line of defense efforts to detect and deter illicit transfers and to secure civil nuclear and radiological material.

We have made remarkable strides in achieving that mission, including: repatriating over 600 kg of Russian-origin highly enriched uranium (HEU) and 1,145 kg of U.S.-origin HEU; securing over 635 vulnerable radiological sites overseas and recovering over 17,525 radiological sourced domestically; securing 85% of Russian nuclear weapons and material sites of concern; completing 12 operational "Megaports" to help detect and interdict nuclear material at key seaports overseas with work underway at an additional 19 ports; monitoring the downblending of over 330 metric tons of Russian weapons-origin HEU into LEU fuel; downblending over 94 metric tons of U.S. HEU into LEU fuel for commercial domestic reactors; and ending 43 years of plutonium production in Seversk, Russia by shutting down the city's two plutonium-producing reactors.

We are also continuing our priority mission to strengthen the nonproliferation regime, including our work to help states implement United Nations Security Council Resolution 1540 by bolstering the implementation of physical protection, export control, and safeguards practices in over 50 countries worldwide. We also launched the Next Generation Safeguards Initiative to strengthen international safeguards, supporting the objectives of the Nuclear Nonproliferation Treaty and its safeguards obligations.

We will continue and, where possible, accelerate these urgent nonproliferation efforts while focusing on our near-term priorities to: 1) complete all Bratislava Nuclear Security Initiative upgrades in Russia by 2008, 2) shutdown Russia's only remaining plutonium production reactor in Zheleznogorsk no later than 2010; and 3) ensure the sustainability of completed nuclear security upgrades in Russia beyond the Congressionally-mandated USG funding cutoff of 2012. With respect to these near-term priorities, the challenge lies in obtaining high-level Russian governmental support—and Russian resources—to complete this work on time and transition responsibility to Russia.

Ms. TAUSCHER. NNSA's Nonproliferation and Verification R&D Program is the sole remaining U.S. government capability for long-term nuclear nonproliferation research and development and other critical work that help keeps the U.S. on the cutting edge of technology. The program is also thinly staffed and supports many U.S. government entities outside of NNSA.

What more can NNSA do to expand and strengthen this program, with a particular focus on significantly increasing the qualified scientific workforce in this area

and developing the capacity to detect nuclear material origin and uranium enrichment and plutonium reprocessing?

Mr. TOBEY. NNSA strongly supports the nonproliferation research and development program. Integral to this work is a vigorous emphasis on long-term basic and applied research toward detection of foreign production of enriched uranium and plutonium, as well as radiation detection. NNSA actively works to integrate all phases of its R&D in these areas with other U.S. government R&D organizations to ensure that the maximum benefit is obtained for every research dollar, thereby providing cutting edge technology for NNSA needs, as well as that of the broader U.S. government. An area that has gained particular emphasis in the past two years is basic research in the academic community that not only directly supports NNSA nonproliferation missions, but also provides critical support to academic programs that are training the next generation of nonproliferation researchers.

Ms. TAUSCHER. The Nonproliferation and International Security (NIS) program offers opportunities for robust activity on major current WMD proliferation concerns, including: activities to address proliferation concerns in North Korea and Iran; engagement on nonproliferation with Russia, China, India and other states; interagency participation in the Proliferation Security Initiative (PSI); assistance to the International Atomic Energy Agency (IAEA); cooperation on international safeguards and export controls in South Asia and the Middle East; efforts to strengthen U.S. commitments to international agreements and regimes; and the establishment of a contingency fund for opportunities to prevent WMD proliferation and terrorism that may arise.

Why was the FY 2009 request for NIS below the FY 2008 funded level?

Mr. TOBEY. The FY 2008 Omnibus Budget Report included a one-time increase for NIS of $26.5 million above the President's request. These added funds were used to support U.S. monitoring of denuclearization activities in North Korea and a new effort—the Next Generation Safeguards Initiative (NGSI)—designed to strengthen international safeguards and revitalize the U.S. technical base that supports them.

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What more can NNSA do to expand and strengthen this critical program [NIS]?

Mr. TOBEY. NIS represents NNSA's most diverse nonproliferation program, ranging from implementation of laws and treaties that form the backbone of the international nonproliferation regime to the hands-on work of applying technology and partnering with foreign governments to build national capabilities to prevent nuclear proliferation. A key NNSA/NIS program looking forward is the Next Generation Safeguards Initiative (NGSI), through which the United States aims to fortify international safeguards and ease strains on the IAEA that are likely to worsen with the emerging growth in peaceful uses of nuclear energy. NGSI will take advantage of U.S. technical leadership in the Department and the National Laboratories and work in concert with others to ensure that the IAEA has the tools needed to carry out effective safeguards.

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What is NNSA doing to ensure that as it expands the scope of its nonproliferation programs globally, existing nonproliferation programs with Russia remain a cooperative endeavor and the U.S. Russia nonproliferation partnership continues to address remaining work in Russia and other possible opportunities for nonproliferation cooperation?

Mr. TOBEY. NNSA is working to transition our nonproliferation relationship with Russia from a donor-recipient relationship to a cooperative partnership, commensu-

rate with changes in Russia's economic and political status and its willingness to work diligently on nonproliferation efforts since the inception of our work in Russia. The implementation strategy for this transition is three-fold: 1) transitioning responsibility for and sustainability of U.S. assistance provided to date; 2) accelerating the remaining nuclear security and nonproliferation work within Russia; and 3) expanding our partnership with Russia to promote global nuclear security objectives and provide assistance abroad.

An excellent example of this strategy can be found in our partnership with Russia under the Bratislava Nuclear Security Initiative, which incorporates all three elements noted above, including an accelerated schedule of completion for remaining Russian nuclear security upgrades and cooperation to convert research reactors in third countries from HEU to LEU fuel and to repatriate the HEU fuel. Both the United States and Russia share a unique responsibility as advanced nuclear technology holders, as well as shared nonproliferation and counterterrorism interests. The U.S.- and Russian-led Global Initiative to Combat Nuclear Terrorism, now boasting over 70 partner countries, is an example of the benefits of cooperative leadership internationally. Together with NNSA's continued efforts on sustainability and cost-sharing, we look forward to building upon these and future opportunities for cooperation in these priority areas.

Ms. TAUSCHER. Some NNSA nonproliferation programs have carried relatively large uncosted and/or unobligated balances over recent years.

Do you expect any NNSA nonproliferation programs to have any uncosted unobligated balances in FY 2008? If so, are such balances reflected in the FY 2009 request for these programs? Please describe any progress by NNSA to limit uncosted and unobligated balances for NNSA nonproliferation programs, and the rationale, if any, for maintaining a certain level of such balances for these programs.

Mr. TOBEY. The Office of Defense Nuclear Nonproliferation plans to have minimal unobligated balances, and the target level for uncommitted uncosted balances for operations and maintenance activities is around 13% for FY2008. These levels are consistent with the DOE and GAO guidance on appropriate threshold levels of carryover balances that are required for prudent operations at the beginning of the new fiscal year, and as such, no NN balances are deemed "excess" or available to offset the need for new FY 2009 appropriations.

NNSA supports operating within the threshold targets for uncosted balances for all of its operating and maintenance programs. There are no thresholds for construction activities, due to the nature of contracting for this work. As such, the Elimination of Weapons Grade Plutonium Production (EWGPP) Program expects to have a total uncosted balance of about $120M at the end of FY 2008. These uncosted balances accrued due to Russian and 3rd party delays on a construction contract.

Nuclear Nonproliferation programs have been on a good trend in executing their programs to reduce the amount of uncosted uncommitted balances at year end, despite rapid and substantial program growth in some areas. For example, the uncosted balances that have been carried by the Global Initiatives for Proliferation Prevention (GIPP) program have been halved over the last five years, with less than $20 million expected to be uncosted but obligated at the end of this fiscal year.

Uncosted balances for DNN programs accrue largely because of the significant amount of DNN work conducted in foreign countries, including the Russian Federation and the Newly Independent States. Business transactions with these countries, including contract negotiations and contractual agreements, and the subsequent accounting of these transactions do not follow the normal obligation and costing patterns. Contract negotiations with a foreign entity may take from two to eighteen months to complete, with the actual work scope taking another three to six months to implement. This unique situation results in higher uncosted balances than many of the other NNSA programs whose business is conducted primarily within the United States. DNN programs have taken several steps to reduce the level of uncommitted uncosted balances, including: monthly financial reviews to determine whether funds need to be reallocated from areas where contract negotiations have slowed; progress reviews at sites to identify and resolve problems early where schedules slippages may be occurring; and efforts to ensure that all direct federal contracts and task orders are awarded in a timely manner. We will continue to identify and implement solutions to limit uncosted and unobligated balances.

Ms. TAUSCHER. The risk of terrorism involving WMD is certainly not limited to the United States, and the success of U.S. efforts is dependent in large part on whether our international partners share a common recognition of the threat and a willingness to combat it.

How is NNSA working with U.S. international partners to address these risks? What are international partners doing to contribute resources and funding to achieve our shared nonproliferation goals?

Mr. TOBEY. A key component of addressing the threat of terrorist acts involving WMD lies in reventing terrorist acquisition of WMD and related materials, equipment, and technology in the first place. To that end, the NNSA Office of Defense Nuclear Nonproliferation supports broader USG and NNSA counter WMD terrorism objectives through its mission to detect, secure, and dispose of dangerous nuclear material worldwide, cooperating with over 100 countries.

In addition to efforts to secure materials in place and provide defense in depth through second line of defense activities, NNSA also helps strengthen the nonproliferation regime at its core. Such activities include strengthening multilateral regimes and supporting efforts such as the 2005 amendment to the Convention on the Physical Protection of Nuclear Material and its new provisions against the sabotage of nuclear facilities, and the recently extended United Nations Security Council Resolution 1540 Commission, as well as actively participating in multilateral efforts such as the Global Initiative to Combat Nuclear Terrorism and the Proliferation Security Initiative (PSI).

International partners are also contributing resources, expertise, and leadership to support these key multilateral initiatives. To date, more than 70 countries have signed on to the Global Initiative, and more than 90 countries support PSI. Additional vehicles for cooperation such as the G-8 Global Partnership and NNSA's own "*Securing the Future Through an Integrated Nuclear Nonproliferation Strategy*" provide avenues for cooperation. To date, some seven countries (Canada, Finland, the Netherlands, New Zealand, Norway, South Korea, and the United Kingdom) have contributed nearly $45 million in contributions and pledges to NNSA's Defense Nuclear Nonproliferation programs alone. Just as the threat of WMD proliferation and terrorism is global in nature, so too must be our responses to address it. We look forward to continued cooperation internationally on this shared international security imperative.

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Can you give us any examples of "cost sharing" models for nonproliferation programs that could be leveraged?

Mr. TOBEY. One such example is the October 22–23, 2007, workshop held in conjunction with the Swiss Government, on "*Securing the Future Through an Integrated Nuclear Nonproliferation Strategy*" to promote new partnerships in addressing urgent nonproliferation and international security issues. This meeting included 45 attendees from 15 countries and the IAEA and International Science and Technology Center (ISTC), with a view toward providing new partnership vehicles, identifying common objectives and shared opportunities and pooling limited resources—while doubling international contributions to NNSA's defense nuclear nonproliferation programs by 2010. To date, through this mechanism and others, NNSA has received nearly $45 million in international contributions.

Additionally, specific programs have cost-sharing plans. For example, in Global Threat Reduction Initiative (GTRI) source recovery projects in a "high-income" country, GTRI pays for packaging labor, while the host country pays all remaining costs. The Megaports Initiative cost-shares, where feasible, with host governments and/or the port authority or terminal operator(s) at the port. Under the most typical cost-sharing approach employed by Megaports, the host nation pays for the design, engineering, construction and installation of the equipment, and in some cases limited maintenance, while DOE/NNSA pays for the radiation detection equipment (including radiation portal monitors and handheld detection equipment), the related communications system (including fixed cameras, optical character recognition or license plate reader systems, communications hardware, and software development), training, and limited maintenance and technical support.

For example, Megaports worked with Dutch Customs in 2004 on a pilot project at one terminal in Rotterdam, where the Dutch Government fully funded the design, procurement, and installation of radiation detection equipment to scan container traffic at all of the terminals in Rotterdam. This model will also be duplicated in Spain, where the Spanish Government has decided that it will procure and install radiation detection equipment at all remaining Spanish ports, in consultation with DOE/NNSA. Numerous NNSA programs employ such specific strategies, including caps on USG funding, and NNSA will increasingly pursue cost-sharing.

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With Russia's economic growth and cash influx, has it taken on more responsibility in funding nonproliferation programs within its borders? Does Russia maintain any nonproliferation programs on its own? How is NNSA working with our Russian partners to move them towards"cost sharing" models?

Mr. TOBEY. Russia has taken a more active role in the selection of nonproliferation and cooperative projects in which it undertakes with the United States. As truly cooperative projects or programs move forward with Russia that are clearly a Russian priority or of interest to them, it has become possible to move Russian partners towards "cost sharing" models.

The Global Threat Reduction Initiative (GTRI) has been working in close cooperation with the Russian Federation to address cost sharing by Russia for our nonproliferation activities. Specifically, Russia is funding the long haul shipping costs for radioisotopic thermoelectric generator (RTG) recoveries, has funded the recovery of 12 RTGs, and has identified $19 million USD to be used for RTG recoveries in 2008–2015. In addition, Russia has committed to fund all storage costs for RTGs in the Far East, starting in 2010. Russia has also begun to address the recovery of both high and low level orphaned and/or abandoned radioactive sources, contributed to orphan source recovery activities at former Soviet sites in Azerbaijan and the Kyrgyz Republic, and completed physical protection upgrades at some radiological repositories throughout Russia and it is understood the these efforts will continue to address all repositories. Lastly, Russia is funding the development and manufacturing of a special uranium-molybdenum fuel to be used in potential future Russian research reactor conversions.

The Elimination of Weapons Grade Plutonium Production (EWGPP) program implemented cost sharing with the Russian Federation at both projects in Seversk and Zheleznogorsk, Russia. U.S. funding caps were negotiated and established early in the implementation of both projects, which effectively transferred the cost risk of the projects to the Russian Federation.

NNSA and Rosatom's Institute for Physics and Power Engineering (IPPE) split the costs on the creation of an export control training center, which is expected to be ready for use in the fall of 2008. Building on this initial success, INECP will continue to pursue cost sharing models in Russia. Additionally, the Global Initiative for Proliferation Prevention (GIPP) has initiated cost sharing discussions with Russian counterparts and anticipates several cost share projects in FY09.

Russia is increasingly sharing the costs for implementing the MPC&A and Second Line of Defense Programs in its country. As part of the transition to full Russian responsibility for sustaining nuclear security upgrades, NNSA is currently negotiating with Rosatom how it will take on a larger share of sustainability costs. In 2007, DOE and Rosatom signed a Joint Statement on sustainability principles that outlines the budgetary, human resource, management and operational requirements for effective long-term Russian sustainability. A detailed MPC&A Joint Action Plan for 2007–2012 provides plans for transitioning specific activities and efforts.

With regard to the Russian plutonium disposition program, the United States and Russia have recently agreed upon a financially and technically credible program to dispose of surplus Russian weapons-grade plutonium based on irradiating it as MOX fuel in fast reactors. As this program is consistent with Russia's national energy strategy, the United States will cap its contribution to Russian plutonium disposition at $400 million and Russia will be responsible for the balance of costs for its multi-billion dollar program.

Ms. TAUSCHER. With a relatively modest investment, the Global Initiatives for Proliferation Prevention (GIPP) program has employed thousands of former weapons scientists in Russia and nations of the former Soviet Union. Yet the program has been criticized this year by the General Accounting Office and the leadership of the House Energy and Commerce Committee as having supported scientists who contributed to Iran's nuclear program.

Have GIPP funds been diverted to activities supporting the Iranian nuclear program?

Mr. TOBEY. There is no evidence that GIPP funds have been diverted to activities supporting the Iranian nuclear program. As reported to the House Energy and Commerce Committee, the Department's National Nuclear Security Administration (NNSA) has undertaken a thorough analysis of all GIPP projects and payments. That analysis concludes that no payments were made to Russian scientists funded by GIPP who are known to be supporting Iran's nuclear programs; nor were GIPP payments made to individuals at Russian institutes subject to U.S. sanctions.

Further, GIPP program guidance requires that all project proposals be vetted through an interagency process to determine whether there are any proliferation concerns associated with projects, entities, or individuals proposed to carry out

project work. GIPP projects that require a U.S. export license or authorization are subject to review by the appropriate U.S. interagency export control committees.

To further strengthen the current review process, the Departments of Energy and State, in coordination with other U.S. agencies, recently updated project review procedures and criteria to ensure consistency across U.S. scientist engagement programs.

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How many scientists that might otherwise have been recruited by rogue states or terrorist groups have been employed via the GIPP program over the past three years? What has been the total investment in GIPP over that period?

Mr. TOBEY. In Russia and the former Soviet Union (FSU), the GIPP program has engaged thousands of scientists, engineers and technicians with a weapons of mass destruction (WMD) background in the last three years, taking into account that project participants are often engaged over multi-year projects (FY08: 3,100; FY07: 3,760; FY06: 4,690). GIPP engages individuals who, due to their specializations in technologies for design, testing and manufacturing of WMD, are logical candidates for recruitment by rogue states or terrorist groups. In broad terms, their involvement in GIPP projects diverts resources and expertise that might otherwise be available to support proliferation programs in countries of concern, and provides former weapons scientists and technical personnel with opportunities to pursue non-WMD work. Benefits also accrue by virtue of the relationships and trust established through collaborative commercial and civilian research projects, which in turn help foster communities of experts who cooperate with the United States to prevent proliferation.

The total investment in GIPP over this time period totals $85,540,000. This sum also supports non-WMD personnel with marketing and other expertise necessary to commercialize sustainable project results, DOE laboratory participation and fixed administrative costs in the United States, as well as important redirection programs in Libya and Iraq. Budget constraints and priorities outside the FSU reduced the annual number engaged. The substantial plus-up that the program received in FY08 will increase the numbers again, taking into account an approximate one year delay between project approval and actual implementation due to the complex contracting process with Russian and FSU institutes.

Ms. TAUSCHER. The Environmental Management (EM) budget has decreased in recent years, but the Department of Energy remains responsible for meeting thousands of site-specific regulatory milestones. Many of these milestones are enforceable via court sanctioned agreements, such as the Tri-Party Agreement in Washington. For FY 2009, the Department has identified 32 milestones at-risk of being missed, double the number at-risk in 2008. Of those 32 milestones, 23 are at-risk due to budget constraints.

How much investment would it take for DOE to achieve compliance for those 23 milestones at risk of being missed due to budget constraints?

Secretary RISPOLI. It is important to recognize that some milestones and obligations would have been missed regardless of the budgetary approach and the level of funding that was chosen. This is primarily the result of the relevant agreements having been negotiated years ago with incomplete knowledge by any of the parties of the technical complexity and magnitude of costs that would be involved in attempting to meet the requirements. Moreover, the cleanup program continues to be impacted by various safety, contract administration, project management, regulatory, legal, technical, economic, and other significant challenges. Consequently, isolating funding as the only issue placing some of the Department's cleanup milestones in jeopardy given the other confounding factors would be inaccurate and misleading.

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What financial and other penalties might the Department face for failing to meet these 23 compliance milestones at-risk due to lack of adequate resources?

Secretary RISPOLI. Many of our regulatory agreements contain a provision that addresses noncompliance with enforceable milestones under which the parties may agree to renegotiate the due date for at-risk milestones. When fines and penalties are issued, the governing statute or regulatory agreement usually establishes the maximum fine or penalty that can be imposed—for instance, $5,000 for the first week of non-compliance and $10,000 for each week thereafter. However, our regulators retain the discretion to impose no fines or lesser fines than the maximum allowable, so it is impossible to predict what actual fines will be until they are imposed, and even then they may be negotiated downward before they are paid.

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What efforts is the Department making to mitigate the risks of meeting milestones?

Secretary RISPOLI. In planning its environmental cleanup efforts and developing the budget for those activities, the Department seeks to focus on work that will produce the greatest environmental benefit and the largest amount of risk reduction. The Department strongly believes that setting priorities and establishing work plans in this way is the most effective use of taxpayer funds and will have the greatest benefit, at the earliest possible time, to the largest number of people. In determining these priorities, the Department works closely with federal and state regulators, and will seek the cooperation of those entities in helping evaluate needs and focus work on the highest environmental priorities based on current knowledge, particularly where doing so necessitates modification of cleanup milestones embodied in prior agreements with DOE.

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Does the Department intend to open new negotiations with states where court-sanctioned agreements are in place and milestones will be missed?

Secretary RISPOLI. The Department works closely with federal and state regulators, and will seek the cooperation of those entities in helping evaluate needs and focus work on the highest environmental priorities based on current knowledge, particularly where doing so necessitates modification of cleanup milestones embodied in prior agreements with DOE.

Ms. TAUSCHER. Consolidation and disposition of special nuclear materials is a collaborative effort between EM and NNSA. To date, this collaboration has happened through the Nuclear Materials Disposition and Consolidation Coordinating Committee (NMDCCC), and organization whose charter will end upon completion of the implementation plans at the end of fiscal year 2008. DOE is currently shipping surplus non-pit weapons-grade plutonium to the Savannah River Site (SRS) from the Hanford Site, Los Alamos National Laboratory and Lawrence Livermore National Laboratory. The current plan for materials disposition is a three-pronged approach including the MOX facility, H Canyon (also at SRS), and construction of a vitrification capability at SRS. But last year, the Department informed Congress it was examining whether the vitrification capability was needed.

In your view, what is the appropriate organizational framework to serve as follow-on to the NMDCCC? Should any particular office assume a strategic lead for any remaining planning?

Secretary RISPOLI. The Department has established an Office of Nuclear Materials Integration within the National Nuclear Security Administration. This Office has the responsibility for establishing nuclear material management policy for the Department, integrating nuclear materials disposition plans and tracking status against those plans. Program offices, such as the Office of Environmental Management, retain full programmatic responsibilities for the materials under their purview. The new office, working closely with the program offices, has the lead for developing strategic plans for the disposition and consolidation of the Department's nuclear materials.

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through the Nuclear Materials Disposition and Consolidation Coordinating Committee (NMDCCC), and organization whose charter will end upon completion of the implementation plans at the end of fiscal year 2008. DOE is currently shipping surplus non-pit weapons-grade plutonium to the Savannah River Site (SRS) from the Hanford Site, Los Alamos National Laboratory and Lawrence Livermore National Laboratory. The current plan for materials disposition is a three-pronged approach including the MOX facility, H Canyon (also at SRS), and construction of a vitrification capability at SRS. But last year, the Department informed Congress it was examining whether the vitrification capability was needed.

When will a final decision be made on whether to proceed with a Plutonium Vitrification Facility?

Secretary RISPOLI. By memorandum dated June 27, 2008, the Under Secretary of Energy approved use of the Mixed Oxide (MOX) and H-Canyon facilities as the revised preferred alternative for disposing of surplus non-pit plutonium, thereby eliminating the need to proceed with also establishing a plutonium vitrification capability. The Department is also preparing a Supplement to the Surplus Plutonium Disposition Environmental Impact Statement (EIS) and plans to issue the final Supplemental EIS and a Record of Decision on its surplus plutonium disposition strategy in early 2009.

Ms. TAUSCHER. Consolidation and disposition of special nuclear materials is a collaborative effort between EM and NNSA. To date, this collaboration has happened through the Nuclear Materials Disposition and Consolidation Coordinating Committee (NMDCCC), and organization whose charter will end upon completion of the implementation plans at the end of fiscal year 2008. DOE is currently shipping surplus non-pit weapons-grade plutonium to the Savannah River Site (SRS) from the Hanford Site, Los Alamos National Laboratory and Lawrence Livermore National Laboratory. The current plan for materials disposition is a three-pronged approach including the MOX facility, H Canyon (also at SRS), and construction of a vitrification capability at SRS. But last year, the Department informed Congress it was examining whether the vitrification capability was needed.

If the MOX facility is not built, could a vitrification facility be built that could dispose of all the plutonium slated for the MOX facility? What would such a facility cost?

Secretary RISPOLI. If the MOX facility were not built, the Department would have to reevaluate viable alternatives for the disposition of surplus weapons-grade plutonium. The Department has previously considered immobilization and may reconsider it as a disposition path for the surplus weapon-grade plutonium currently planned for the MOX facility. Cost estimates for immobilization are highly uncertain since the technology supporting the immobilization of plutonium would require additional R&D and the immobilized waste form has yet to be qualified for acceptance in the planned geologic repository at Yucca Mountain. Research and development of a ceramic immobilization process was halted seven years ago and restarting such a program now would require at least 10–12 years to complete the necessary R&D, design and construction before such a facility were able to become operational in the 2018–2020 timeframe. The amount of time necessary to immobilize this large quantity of weapon-grade plutonium would extend beyond the planned operating life of the Defense Waste Processing Facility (DWPF) at the Savannah River Site, moreover there is an insufficient quantity of high-activity waste at DWPF to immobilize this quantity of surplus plutonium.

Ms. TAUSCHER. The FY 2009 NNSA budget request includes $77.4 million for a new program called Transformation Disposition. Does EM have an eventual role in the NNSA's Transformation Disposition? Will EM coordinate with NNSA on these efforts?

Secretary RISPOLI. The National Nuclear Security Administration (NNSA) is using their new Transformation Disposition (TD) as the principal funding source to achieve footprint reduction through the sale, transfer, or demolition in support of Complex Transformation. A portion of the TD program resources will be used to support transfer of NNSA's process-contaminated excess facilities to EM. DOE currently uses the transfer process in DOE Order 430.1B, Real Property Asset Management, which outlines the acceptance criteria for transferring facilities from one DOE program to another. The NNSA and EM are in the coordinating phase on what process-contaminated excess facilities meet acceptance criteria for transfer.

Ms. TAUSCHER. Do NNSA and EM have a plan for coordination of D&D and cleanup activities at NNSA sites?

Secretary RISPOLI. Legacy environmental cleanup, including D&D activities at the National Nuclear Security Administration (NNSA) sites are funded by the Office of Environmental Management (EM) and coordinated with the NNSA. These activities have been established as formal projects within the Department of Energy (DOE)

following the procedures established by EM and the requirements of DOE Order 413.3A *Program and Project Management for the Acquisition of Capital Assets.* The terms of oversight and direction for these projects at the NNSA sites have been formalized by joint memorandum *Authority for Environmental Work at National Nuclear Security Administration Sites* signed by the Assistant Secretary for Environmental Management and the Associate Administrator for Infrastructure and Environment, National Nuclear Security Administration dated October 27, 2005. The NNSA is coordinating with EM on the potential transfer of excess facilities that are process contaminated. DOE uses the transfer process in DOE Order 430.1B, Real Property Asset Management, which outlines the acceptance criteria for transferring facilities.

Ms. TAUSCHER. According to GAO, not all DOE sites will fully implement the Design Basis Threat (DBT) by the end of FY 2008, as required by DOE's 2005 DBT. What have been the challenges in meeting the requirements of the 2005 DBT?

Secretary RISPOLI. DOE and National Nuclear Security Administration (NNSA) facilities were originally required to meet the 2005 DBT by the end of 2008. The initial deadline was changed to allow the DOE/NNSA's program offices to determine the "How" and "When" of the 2005 DBT implementation. The deadline was changed in recognition of the Departmental direction to minimize the number of high-equity facilities through material consolidation, and the actual time required to fully analyze the 2005 DBT and develop and implement appropriate and cost-effective enhancement proposals.

Y–12: Will be complete in FY 2011.

LANL: Will be complete in FY 2011.

SNL: The de-inventory of Category I special nuclear material has been completed.

Pantex: Will be completed during FY 2008.

LLNL: The de-inventory of Category I special nuclear materials will be completed in FY 2012.

Kansas City: Has no special nuclear material.

Nevada: Will be completed in FY 2009.

OST: Will be completed in FY 2008.

INL: INL has completed several physical security upgrades to comply with the 05 DBT. In November 2007, the Assistant Secretary for Nuclear Energy approved a revision to the NE Implementation Plan for the 2005 DBT that identifies the actions required for NE to become fully compliant with the 2005 DBT by the end of FY 2013.

SRS: The Savannah River Site (SRS) will complete implementation of the 2005 DBT by September 30, 2008. The major facility impacted by the 2005 DBT is the K-Area Complex, a key site in the Department's plutonium consolidation initiative.

RL/Hanford: In April 2006, the Deputy Secretary of Energy approved an exemption for the Richland/Hanford Site's Plutonium Finishing Plant (PFP) to implement the 2005 DBT, based on plans to de-inventory PFP's surplus plutonium inventory by the end of 2009. In September 2007, DOE decided to continue surplus plutonium consolidation to the SRS. These shipments from PFP to SRS are well underway and it is anticipated they will be completed by September 2009. However, some residual spent nuclear fuel will be relocated to the Canister Storage Building complex which will be 2005 DBT compliant by December 2009.

ORNL: Building 3019 is a non-enduring facility and therefore not required to implement the 2005 DBT. Additionally, there are no other Office of Science sites with Special Nuclear Materials quantities requiring implementation.

Ms. TAUSCHER. The Waste Treatment Plant (WTP) is designed to treat 100 percent of the High Level Waste and 50 percent of the Low Activity waste currently stored in tanks at Hanford. DOE has funded an effort to develop a Bulk Vitrification system to process 50 percent of the low activity tank waste, but costs for this system have doubled over the past four years, and progress has been slow. When the con-

tract was awarded in 2004, the objective was for a technology demonstration in 2006; but in a June 2007 report, GAO noted that the estimate for such a demonstration is 2012 or later. The FY 2009 budget request reports that engineering-scale bulk vitrification tests were successful and Critical Decision-2 (Approve Performance Baseline) may occur in January 2008, but this milestone has not been met. The FY 2009 request also cuts funding for Bulk Vitrification to $1 million and proposes two alternative paths for processing low activity waste (increasing the capacity of the Low-Activity Waste Facility of the WTP and early startup of the Low-Activity Waste Facility).

Please provide an update on EM's disposition plan for low activity waste at Hanford.

Secretary RISPOLI. The Department is developing a strategy to accomplish the tank cleanup mission. It is expected that this strategy will be completed in the comings weeks. The Waste Treatment Plant has the capacity to immobilize 100 percent of the high level waste and 50 percent of the low activity waste. To address the remaining 50 percent of low activity waste, we are conducting studies to determine options for low activity waste treatment. These activities have included: commissioning a technical consultant review team to evaluate the current disposition plans, developing pre-conceptual studies of an interim pretreatment capability, evaluating the feasibility of installing a third melter in the Low Activity Waste Facility, evaluating the feasibility of installing enhanced capacity melters in the Low Activity Waste Facility; and determining the viability of an early startup of the Low Activity Waste Facility.

Ms. TAUSCHER. In a January 2007 report to this committee, GAO found that among other security challenges at LANL, the Los Alamos Site Office lacked the security staff required to conduct oversight of the LANL contractor, and often such officials lack proper training. From your perspective as Chief Health, Safety and Security Officer for all of DOE, does the Los Alamos Site Office have an adequate number of properly trained security officers?

Mr. PODONSKY. As a point of clarification to the question, the Los Alamos Site Office (LASO) has a staff of career federal security professionals; they do not have security officers (armed or unarmed guards). To evaluate the LASO's oversight of the contractor, the Office of Independent Oversight performed a comprehensive inspection of the LASO and the Los Alamos National Laboratory (LANL) during the fall of 2006 and found that staffing within LASO was insufficient to fully oversee the laboratory's safeguards and security program. While LASO had integrated the Department's technical qualification program for safeguards and security into training program and staff generally met established qualification requirements, skill mix issues were evident. The recent departure of the LASO Assistant Manager for Safeguards and Security and vacant security positions continue to challenge the site office's ability to perform effective oversight of the LANL.

The Office of Independent Oversight has scheduled another comprehensive inspection at LANL during August–September 2008 and will evaluate LASO progress in improving its safeguards and security oversight capabilities.

Ms. TAUSCHER. The FY 2008 National Defense Authorization Act requires the GAO and then the NNSA to examine alternatives for managing protective forces at all NNSA and Department sites with special nuclear material. Has the GAO contacted the Department about this review? Is NNSA Defense Nuclear Security working with the Department conduct a review?

Mr. PODONSKY. Mr. Jonathan Gill, Assistant Director, Government Accountability Office (GAO) conducted an entrance briefing with NNSA concerning the FY 2008 National Defense Authorization Act (DOE Protective Force Options: GAO Engagement 360953) on June 10, 2008. In August 2007, the National Nuclear Security Administration (NNSA), Office of Defense Nuclear Security was tasked by the NNSA Administrator to conduct an analysis and comparative survey examining several options for performing Protective Force duties at NNSA sites, including the use of an enterprise-wide contractor, federalization of existing security employees, or a combination of the two. The "Comparative Analysis of Contractor and Federal Protective Forces at Fixed Sites" also identified benefits of standardization across the NNSA Complex, including reduction of preparation time required for response to potential work stoppages resulting from strikes. DOE is awaiting completion of the GAO study (approximately March 2009) in accordance with the FY 2008 National Defense Authorization Act prior to submitting a report within 90 days to the Committee on Armed Services of the Senate and the Committee on Armed Services of the House of Representatives.

Ms. TAUSCHER. Should the Department revise or update the 2005 DBT?

Mr. PODONSKY. The Department of Energy is currently in the process of assessing the technical basis and applicability of the 2005 Design Basis Threat (DBT). The

DBT and the basis for the DBT are reviewed annually to ascertain if the current performance metric and adversary capabilities are adequate. A 2008 revision to the DBT is under review.

Ms. TAUSCHER. The FY 2008 NDAA directs NNSA—in consultation with your office—to conduct an assessment of the physical and cyber security risks posed to the nuclear weapons complex and the security technologies employed against those threats, and prepare a report identifying the manner in which it prioritizes investments in physical and cyber security of the weapons complex. The report would be included in the annual Future Years Nuclear Security Plan (FYNSP).

Is the NNSA working with your office in conducting this assessment and report?

Mr. PODONSKY. The NNSA has assigned this work to Sandia National Laboratories. Sandia has not yet contacted the Office of Health, Safety and Security (HSS) to provide input, support or review, but NNSA has assured us that the scope of work provided to Sandia includes consultation and coordination with HSS.

Ms. TAUSCHER. The FY 2008 NDAA directs NNSA—in consultation with your office—to conduct an assessment of the physical and cyber security risks posed to the nuclear weapons complex and the security technologies employed against those threats, and prepare a report identifying the manner in which it prioritizes investments in physical and cyber security of the weapons complex. The report would be included in the annual Future Years Nuclear Security Plan (FYNSP).

How does the Department prioritize investments among physical and cyber security?

Mr. PODONSKY. Departmental program elements prioritize funding for physical and cyber security based upon policy requirements and recommendations and findings from oversight organizations. The Department's Office of Chief Information Officer (OCIO) has program responsibility for cyber security that includes development of policy. The Office of Health, Safety and Security (HSS) has the responsibility for policy development, for physical security, and independent oversight for both physical and cyber security. HSS and OCIO coordinate policy and response to oversight findings when both cyber and physical security are involved.

Ms. TAUSCHER. Your office is the central DOE organization responsible for health, safety and security policy development, assistance, oversight and enforcement.

What is the extent of your office's authority in establishing DOE security policies?

Mr. PODONSKY. The Office of Health, Safety and Security (HSS) is the corporate policy office within the Department of Energy (including NNSA) for the development, maintenance, interpretation and revision of various Departmental security policies, less cyber security. These include: Safeguards and Security Program Planning and Management, Protective Force, Physical Protection Security, Information Security for Classified Material, Personnel Security (including the Human Reliability Program), Nuclear Materials Control and Accountability and the Design Basis Threat. HSS also provides Government-wide and Department-wide policies, procedures and guidance for information classified or controlled under statute or executive order to protect the national security (especially Restricted Data), and controlled unclassified information. HSS-proposed policies are subject to review and comment by other Departmental elements through the formal Departmental Directives Program. When comments from this process are reconciled, the policy receives final approval from the Deputy Secretary of Energy.

Ms. TAUSCHER. Your office is the central DOE organization responsible for health, safety and security policy development, assistance, oversight and enforcement.

Does your office have the necessary authorities to execute its oversight authorities?

Mr. PODONSKY. While not established by legislation, the Office of Independent Oversight, within the Office of Health, Safety and Security, has clearly defined authorities that facilitate effective implementation of the Office's independent oversight responsibilities. The Office's defined authorities have been longstanding and are embodied primarily in DOE Order 470.2B, *Independent Oversight and Performance Assurance Program.* The establishment of this order by the Secretary of Energy provides clearly defined authorities for scheduling and conducting inspections to evaluate the effectiveness of DOE line management performance in the areas of safeguards and security; cyber security; emergency management; and environment, safety and health. Further, the order obligates DOE line management organizations and their contractors to support, participate in, and respond to Independent Oversight inspections. The formation of HSS has further supported the Independent Oversight mission by creating enhanced organizational interfaces with offices that are responsible for establishing policy, providing assistance to line management, and conducting enforcement actions.

Ms. TAUSCHER. When HSS was established, it was structured to ensure you were not responsible for any operational elements, with one exception. Nevertheless,

within your organization there appears to be an office responsible for the security of the DOE Headquarters facilities, which would seem to represent a conflict of interest. That is, an office with setting policy and providing oversight is also conducting operations that need to comply with those very policies.

Does the Department have a plan to address this conflict?

Mr. PODONSKY. The Department acknowledges that the presence of the Office of Security Operations within HSS does present a potential conflict of interest, in that the Office of Security Operations is responsible for implementing security for DOE Headquarters facilities. Other elements of HSS establish security requirements which they must comply with, and the HSS Office of Independent Oversight is charged with undertaking periodic review as to the effectiveness of implementation. That potential conflict has been at least partially mitigated through the strength of internal controls within the HSS organization. Security policy and oversight functions report to the HSS Deputy Chief for Operations, whereas the Office of Security Operations reports directly to the Chief Health, Safety and Security Officer. The independence and objectivity of Independent Oversight results are insulated through the use of a senior Quality Review Board that ensures that the results presented to the implementer (Office of Security Operations), and to the Chief Health, Safety and Security Officer, are complete and fully supported. The Department recognizes that most of the "landlord" functions (including safety and health) for the Headquarters facilities have been assigned to Office of Management (MA), and is considering transferring most functions of the Office of Security Operations to MA.

Ms. TAUSCHER. HSS was established not only to improve program management for the health, safety and security functions within DOE, but also to improve the health, safety, and security for DOE workers. These responsibilities include a commitment to provide medical screening examinations for former employees to identify adverse health effects that may have resulted from working at DOE facilities. The committee understands that more than 600,00 people are eligible to participate in the former worker program and may need screening. This element (Occupational Health) of the HHS budget was appropriated $16.4 million in FY 2008, and the budget request for FY 2009 is $17.9 million.

Please explain how this program can adequately provide for all the former workers who seek medical screening examinations with its modest funding.

Mr. PODONSKY. As of November 2007, over 51,000 comprehensive medical screening examinations have been provided to those who volunteered to participate in the program. In addition, follow-up re-screening exams have been provided to over 5,700 former workers. For FY 2009, HSS has requested an additional $1,539,000 to ensure that the Former Worker Medical Surveillance Program can provide additional medical screenings. This additional funding is required to continue the goal of serving all interested former workers from all DOE sites. These additional funds are especially necessary in order to work through the backlog of individuals waiting to be screened through the National Supplemental Screening Program, a Former Worker Program project that provides medical examinations for former workers who no longer reside in close proximity to the regional screening clinics. Based on the historical level of medical screenings that have been conducted and the utilization rate in FY 2008, HSS believes this increase in funding and the resultant increase in medical screenings are sufficient to meet the needs of the program and will eliminate the backlog of former workers who have volunteered to participate in the program.

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