HEARING TO RECEIVE TESTIMONY ON STRATEGIC FORCES PROGRAMS OF THE NATIONAL NUCLEAR SECURITY ADMINISTRATION AND THE DEPARTMENT OF ENERGY'S OFFICE OF ENVIRONMENTAL MANAGEMENT IN REVIEW OF THE DEPARTMENT OF ENERGY BUDGET REQUEST FOR FISCAL YEAR 2013

WEDNESDAY, MARCH 14, 2012

U.S. SENATE,
SUBCOMMITTEE ON STRATEGIC FORCES,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

The subcommittee met, pursuant to notice, at 2:36 p.m. in room SR–222, Russell Senate Office Building, Senator E. Benjamin Nelson (chairman of the subcommittee) presiding.

Committee members present: Senators Nelson and Sessions.

Majority staff member present: Jonathan S. Epstein, counsel.

Minority staff member present: Daniel A. Lerner, professional staff member.

Staff assistants present: Hannah I. Lloyd and Brian F. Sebold.

Committee members' assistants present: Ryan Ehly, assistant to Senator Nelson; Chad Kreikemeier and Lenwood Landrum, assistants to Senator Sessions; and Charles Brittingham, assistant to Senator Vitter.

OPENING STATEMENT OF SENATOR E. BENJAMIN NELSON, CHAIRMAN

Senator NELSON. Let me call today's hearing to order. Today's hearing will be on the fiscal year 2013 budget submission for the defense-related programs at the Department of Energy. We'll hear testimony from the National Nuclear Security Administration (NNSA), who maintains the safety, reliability, and military utility of our Nation's nuclear weapons. We'll also hear testimony from the Office of Environmental Management, whose mission is to clean up former Cold War nuclear weapons production sites.

I want to thank our witnesses today for taking the time out of their schedules to testify on these programs, and I of course want to thank my good friend and ranking member of this committee. We've worked so well together over the years, having traveled on

CODELs and other opportunities to be together. I want to thank Senator Sessions for all of his help and support over the years.

In August, we passed the Budget Control Act, which set a 10-year ceiling on the defense and non-defense portions of our discretionary budget. For the Department of Defense relative to the 2012 baseline, that translates to a $259 billion reduction in the 5-year budget window from 2013 to 2017, with a growth of about 1 percent annually.

The Department of Defense made hard decisions to meet the reductions under the act, and likewise I expect similar hard decisions have been made by NNSA and the Office of Environmental Management. This hearing will examine those decisions.

This hearing will also examine recent findings from the National Academies from a study we legislated in the fiscal year 2010 defense authorization bill on the role of the NNSA in managing its laboratories. The NNSA has proposed a top-line budget of $11.5 billion, a 4.9 percent increase over the enacted fiscal year 2012 levels. Within that budget, the amount to maintain and modernize our nuclear weapons increased by 5 percent to $7.6 billion, nonproliferation increased by 7.1 percent to $2.5 billion, and the amount for naval reactors increased by .8 capability to $1.1 billion.

So compared to the Department of Defense, I would say the NNSA came out a winner. In terms of the commitment made as a part of the New START debate, the budget does fall short, about 4 percent short, of the $7.9 billion as found in what we refer to as the 1251 report, which is the 10-year nuclear modernization plan required under section 1251 of the 2010 National Defense Authorization Act.

Realistically, given that the 1251 report was submitted to the Congress in November 2010, 9 months before the Budget Control Act became law, falling 4 percent short of the $7.9 billion target is reasonable, given the fiscal reality facing us today.

The same can be said for the budget of the Office of Environmental Management. Its fiscal year 2013 budget request is $5.65 billion, about 2 percent below last year's enacted level. Now, this office has some of the most challenging and pressing problems in the Department in cleaning up millions of gallons of highly radioactive wastes left behind from 50 years of nuclear weapons production.

While the top-line numbers of the NNSA look good compared to the Department of Defense, there are, however, questionable decisions in its formulation. Let me go over my five top concerns. First and foremost is the decision to defer for 5 years the construction of the replacement for the Chemistry Metallurgy Research Facility, referred to as CMR, Building in Los Alamos, first built in 1952 with a mandate for closing it by 2019 for safety reasons. This new CMR facility along with the Uranium Processing Facility (UPF) at the Oak Ridge Y12 plant, are the two cornerstones for a modernized nuclear weapons infrastructure.

The administration agreed to build these facilities as part of the New START debate. The new CMR facility was to facilitate an ability to manufacture, if needed, 50 to 80 plutonium pits per year, which as recently as 2 weeks ago General Kehler of U.S. Strategic Command stated was still a Department of Defense requirement.

Without the new CMR, Dr. McMillan, the Director of Los Alamos, has flatly stated an inability to meet that requirement.

In its place, the NNSA is now looking at spreading out its plutonium operations to multiple NNSA facilities across the United States, from Lawrence Livermore in California to the Savannah River site in South Carolina, just to be able to manufacture 20 to 30 pits per year. I hope Dr. D'Agostino and Don Cook can help me understand how they came to this decision and whether they believe the proposed alternative strategy is a sound and final decision.

In this current fiscal environment, deferring anything for any length of time implies a cancellation to Congress. It just implies that. So I am pleased that the NNSA is proceeding with replacing the UPF, another Manhattan Era facility used for making the secondaries in our nuclear weapons, but as I understand it they're increasing its budget by $150 million. It raises the question: Why couldn't the NNSA use this increase to at least begin construction of the new CMR facility, perhaps at a slower pace, but to get the process started? Multi-year budgeting is very difficult, but it does occur within this structure.

Second, I understand that the Nuclear Weapons Council has given approval to begin the engineering for overhauling the B61 gravity bomb and I'm eager to hear what the NNSA believes are the major costs and hurdles they face going forward in combining several variants of this weapon system into one, which ultimately, as we know, can save costs in its maintenance.

Third, in order to find funds for the B61 program the NNSA has slowed down its production of reworked W76 warheads that the Navy uses in its *Ohio*-class submarines. In a later hearing, I hope to explore the implications of this slowdown with the Navy, but I'm concerned whether it's disrupting the fleet's overhaul schedule of when the boats come to home port for installing the rebuilt warheads and whether the Navy will suffer increased costs and have a risk related to that as a result.

Fourth, the Department of Defense tells us they're delaying the schedule of the replacement for the *Ohio*-class submarines by two years, with first construction starting in 2021. This slip has caused a decrease in the research funds for its reactor by about $31 million in fiscal year 2013. So I would like to know from Admiral Donald what is the impact of this decrease and what is your concern on this trend, particularly in fiscal year 2014 and beyond?

Fifth, there are concerns about NNSA governance. The National Academies released report that we referred to, mandated in the 2010 NDAA, which commented that "The relationship between the NNSA and its national security laboratories is becoming dysfunctional." The NNSA was created in the 1999 NDAA to give the weapons program independence, but the original intent of a standalone agency only reporting to the Secretary of Energy now seems lost.

So when you look at the DOE organization chart, it still resides within the DOE bureaucracy. I'd like to know from Dr. D'Agostino what his response to the report's findings might be and what we in Congress can do to help carry out your mission.

Finally, not to let you off the hook—and I'm going to butcher the word, the name; "Hue-ZIN-gah," am I close?

Mr. HUIZENGA. Yes.

Senator NELSON. Huizenga. The Hanford—I don't want to let you off the hook entirely here. The Hanford waste treatment plant had the honor in January of making the front page of USA Today, as we all know, with large cost overruns, up to a billion dollars over the life of the plant, which is currently budgeted at $12 billion and will begin operations in 2019.

The original cost was $5.7 billion, with operations to begin in 2011. This is the largest and most technically complex project in the Department, with a mission to retrieve and solidify into glass logs 53 million gallons of highly radioactive sludge and liquid waste residing in 177 underground tanks at the Hanford site. 144 of the tanks are just one layer of carbon steel, instead of the double-shell construction used today to contain leakage.

These tanks reside 7 to 12 miles from the Columbia River, which runs the length of the border between Oregon and Washington, where about 1.5 million people reside. So I'd like to know what action you have undertaken since August 2011, that review to reduce technical risk in the treatment facility and what efforts are there to resolve workers' concerns about safety and engineering design.

With that long opening, let me now turn to my good friend Senator Sessions for any opening remarks that you might like to make.

STATEMENT OF SENATOR JEFF SESSIONS

Senator SESSIONS. Thank you, Chairman Nelson. It's been such a great pleasure to work with you on this subcommittee. Your knowledge and experience and judgment on these matters are invaluable to us, and I really value your judgment.

I share some of the concerns that you've raised. We do have responsibility to our constituents to challenge the proposals that are before us to make sure every dollar that we spend is wisely spent. I've been somewhat uneasy for a number of years about some of the nuclear programs that NNSA has been involved in, and we'll continue to raise those as time goes by.

Over the past few years, this subcommittee has heard testimony of countless experts who have unanimously recognized the critical need for modernizing our nuclear weapons complex. We have to do that. Unfortunately and counter to the bipartisan progress that we have made thus far, the National Nuclear Security Administration's 2013 budget undermines that progress and the agreements that were reached, it seems, and jeopardizes the future viability of the nuclear weapons complex.

This budget incorrectly suggests that the recapitalization of our nuclear weapons complex is unaffordable and suggests that we as a Nation cannot afford to modernize in a way that assures confidence, confidence in competent stewardship.

I disagree with that. Despite our need for fiscal austerity—and there is a need—shortchanging nuclear modernization at a time when we face threats and uncertainty ahead, and they even grow, is simply not acceptable. We must continue to pursue the robust modernization the experts, such as the bipartisan Strategic Posture Commission, have testified has been critical to the recapitalization,

recapitalizing a vanishing intellectual base and crumbling infrastructure.

It has been only one year since the ratification of New START and the President has already failed to honor the commitments in this budget that he made at that time. I don't know exactly what the amount of money we need, but the amount that was committed is not provided for in this budget. Senator Kyl, who worked so hard on that, is deeply disappointed.

And I'm prepared to hear testimony that some of the things could be done for less money, but I'm not prepared to concede that we should in any way reduce our plans to modernize our nuclear weapons.

So when first proposed in 2010, both Congress and the administration agreed that the 10-year nuclear modernization plan was a matter of national importance and, even with our dismal fiscal outlook and overwhelming consensus, concluded that fully funding a comprehensive modernization plan was essential for the future. Vice President Biden wrote in the Wall Street Journal January of 2010: "Over the next 5 years, we need to boost funding for these important activities by more than $5 billion. Even in a time of tough budget decisions, these are investments we must make for our security."

This plan and these budget decisions were the result of a lot of study and some bipartisan agreements. They had the full support of the Department of Defense, which even in the face of significant cuts to the Department of Defense was will to contribute over $7 billion to NNSA.

As the ranking member of the Senate Budget Committee, I'm acutely aware of the fiscal challenges that face us. I appreciate that NNSA is looking for ways to do more with less. I certainly celebrate that. However, the decision to ignore critical DOD requirements and to defer the facility at Los Alamos construction and repair, while also increasing funding for the multi-billion dollar facility at Y12, is something I'm not comfortable with at this point.

It perpetuates the status quo mentality that everything nuclear has to be exceedingly expensive. Some things do, some things don't. I believe there are smarter and less onerous ways to affordably recapitalize the nuclear weapons complex and I'm disappointed not to see any serious proposals for addressing the out-of-control risk aversion that has ballooned costs.

The NNSA budget favors short-term cost avoidance over strategy and is based on a number of assumptions that are contrary to the national security of the United States and its allies. The budget neglects a standing DOD requirement for a capability to manufacture between 50 and 80 pits per year and recklessly presumes that future life extension program plans will be allowed to cannibalize the pits of weapons currently held in strategic Reserve. While the reuse of pits may be an attractive option, the studies to support its long-term feasibility have not taken place. Furthermore and most telling, these decisions are not supported by U.S. Strategic Command.

The budget underscores a growing disconnect between the Department of Defense and the NNSA. A number of the fiscal year 2013 budget cuts have prompted our military leadership to question and raise concerns about NNSA's ability to meet the DOD re-

quirements. NNSA's mission is not just to produce a product; it's to serve a customer, and the customer are the people charged with the defense of the United States of America. So I'm uneasy if the customer is not happy.

NNSA's decisions to ignore Navy requirements and delay the life extension of the W76 warhead is yet another example.

Finally, the lack of a 5-year budget plan has instilled a level of uncertainty the 10-year modernization plan and over $7 billion in DOD resources were determined to fix and to prevent.

Every agency is facing unprecedented budget pressures. We are facing unprecedented budget pressures. We really are. We do not have the money to do everything that we need to do for this country. Congress does not fully understand it. I'm not sure it's understood down to the depths of all of our agencies, including Energy, including Defense. It's just serious. We don't have the money. That's what Admiral Mullen meant when he said the debt is the greatest threat to our national security. It could cause us to make bad decisions with regard to how we defend this country.

Every agency is facing challenges. However, DOD was able to maintain its commitment to modernizing the triad of delivery vehicles with minimal change. NNSA's decision to abandon cornerstone efforts at the Chemical Metallurgy Replacement Facility at Los Alamos is troubling. Further, misplaced priorities like a nearly half a billion dollar increase to the $5.5 billion request for environmental management are unacceptable, given the Department of Energy's inability to meet critical national security requirements. So maybe I'm wrong about that. I'd like to hear that explained. That's the way our staff calculates an additional request for $500 million.

The lack of leadership demonstrated in this request is indicative of the White House attempting to undermine the long-term requirements in the agreement that was reached as part of the START Treaty, I am afraid. I mean, I know we're short money, but a serious agreement was made as part of that treaty to ensure that we modernize our nuclear weapons. That's something that most of us, I thought virtually all of us, had agreed to, and we're seeing a major retreat from that in this budget.

The threat, uncertainty, and risk of the international environment is growing and more nuclear power is coming on line. The budget before us for NNSA, with misguided cuts, seems to exacerbate the risk. The fiscal problem before us will not be solved by degrading our ability to maintain a safe, secure, and reliable nuclear stockpile.

So, Mr. Chairman, thank you for letting me express some concerns. I hope I have overstated the problem, and we'll give our witnesses a chance to explain.

Senator NELSON. Well, you certainly didn't candy-coat your opening statement. So we appreciate your candor. Thank you very, very much.

Mr. D'Agostino, the floor is yours. Thank you.

STATEMENT OF HON. THOMAS P. D'AGOSTINO, PH.D., ADMINISTRATOR, NATIONAL NUCLEAR SECURITY ADMINISTRATION, AND UNDER SECRETARY FOR NUCLEAR SECURITY, DEPARTMENT OF ENERGY

Mr. D'AGOSTINO. Thank you, Mr. Chairman. Chairman Nelson, Ranking Member Sessions: Good afternoon and thank you for having me here to discuss the President's fiscal year 2013 budget request. Your ongoing support for the men and women of the Department of Energy and the NNSA and the work that we do really help us keep American people safe, help protect our allies, and it really has enhanced global security.

In February President Obama released his budget for 2013. As you know, due in part to the constraints established by the Budget Control Act, this is a time to precisely target our investments. I want to assure you that the National Nuclear Security Administration and the Office of Environmental Management are being thoughtful, pragmatic, and efficient in how we complete our missions. We have continuously improved the way we operate and we're committed to doing our part in this constrained budget environment.

I also want to acknowledge that this is the first time I've come before you with more than NNSA to discuss. In an effort to maximize the accomplishments of mission-critical projects and organize needs more closely with DOE resources, the Environmental Management and the Office of Legacy Management were aligned under my office last August, August 2011. It's been less than a year since the realignment and we're already seeing tangible benefits from working in a more thoughtful and coordinated way.

Still, NNSA and EM have separate budget requests and I'll talk about both here today. I know that both Don Cook and Admiral Donald from NNSA and Dave Huizenga from EM are testifying after I do, but I want to briefly discuss the President's 2013 request.

For NNSA, the President's request is $11.5 billion, an increase of $536 million over the fiscal year 2012 appropriation. The request reaffirms our commitment to building a 21st century nuclear security *Enterprise* through innovative approaches to some of our greatest nuclear security challenges and key investments in our infrastructure. As Dr. Cook will detail for you, we're continuing our critical work to maintain the Nation's nuclear stockpile and ensuring that as long as nuclear weapons exist they are safe, secure, and effective.

The request provides $7.58 billion for the weapons activity account to implement the President's strategy in coordination with our partners in the Department of Defense.

We're also here this morning to discuss the President's budget request for NNSA's naval reactors program, as Admiral Donald will detail you shortly. NNSA has helped American sailors reach destinations across the globe safely and reliably for decades and the $1.1 billion 2013 request will support the effort on the *Ohio*-class submarine replacement and modernize key elements of our infrastructure. I'll leave it to Admiral Donald to expand on that, but support for the President's request is key to our ability to support the nuclear Navy.

The Office of Environmental Management's budget request of $5.65 billion enables the continued safe cleanup of environmental legacy brought out from 5 decades of nuclear weapons development and government-sponsored nuclear energy research. EM's cleanup priorities are based on risk, while continuing to meet the regulatory compliance commitments. Completing cleanup protects human health and the environment of communities surrounding our cities and sites—excuse me—surrounding sites, and enables other crucial DOE missions to continue.

By reducing the cleanup footprint, EM is lowering the cost of security, lowering costs of surveillance, infrastructure, and overhead activities that would otherwise continue for decades.

A core value of EM is safety, which is incorporated into every aspect of the Environmental Management program, and the Environmental Management program has maintained a strong safety record, continually striving for a workplace free of accidents or incidents, and promotes a robust safety culture throughout our *Enterprise*.

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

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

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

EM has also established a partnership with NNSA to build upon the success in the NNSA with the supply chain management center, in other words managing the way we procure our components and commodity products by leveraging our buying power across the combined EM and NNSA complexes for commonly used goods and services with the objective of realizing cost savings for the EM pro-

gram similar to the cost savings achieved in the NNSA. These cost savings have well exceeded the $300 million mark.

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

I'm proud of what we've been able to accomplish so far and I'm excited about what we'll accomplish next. We're dedicated to achieving the President's nuclear security objectives, continuously improving the way we do business, and doing our part in this tough fiscal environment.

Thank you again for having me today and I'll be happy to answer any questions that you may have.

[The prepared statement of Dr. D'Agostino follows:]

Senator NELSON. The fiscal year 2013 budget submission, as I indicated in my opening statement, did not—for the weapons program, didn't contain a 5-year projection, and in some cases where it did, such as for naval reactors or nonproliferation, it simply indexed out the out years—indexed the out years by inflation, making it impossible to satisfy the modernization report which was required under section 1043 of last year's defense authorization. Can you give us some idea of how this happened or how this would be consistent with what we were seeking a year ago?

Mr. D'AGOSTINO. Absolutely. As you know, the fiscal year 2012 appropriation came through in December of last year, just basically a month before budgets were to be locked down. That, in addition to what we've talked about, discussed already in our statements about the Budget Control Act out year commitments, put us in a situation where we said let's—and it's documented in the President's budget itself, that the out year numbers in essence are a placeholder to reflect essentially the limits imposed by the Budget Control Act, giving us time to work with our DOD partners in order to work on the details of the out years, the details of the out years associated with making sure that we can fully support the life extension programs as we've laid out and requested in this budget, making sure that we can follow through on our commitments on infrastructure improvements for both UPF, the High Explosive Pressing Facility, and continue to do our plutonium capabilities.

The details of how the out years will look is being worked on. We have a joint team with the Defense Department to look at this, and there's a lot of concern, of course. I know, I recognize that both Departments, the NNSA and the Department of Defense having some challenges. Of course we have challenges. We have a very significant fiscal environment and we have a tremendous amount of work to do. But that's why we're working together on the same team in order to make sure that these out years are well identified and laid out.

We expect to have an update to what's now called the 1043 report, essentially which lays out those out years. We expect to have

that update report done jointly by the Defense Department and NNSA later this year.

Senator NELSON. When you say later, do you have some idea about how much later?

Mr. D'AGOSTINO. I know the teams are working to get essentially agreement some time this summer. The question would be exactly how much detail we put into it. We want the detail because, of course, we need it to get that fiscal year 2014 budget built. That's the key budget and out years that we want to make sure that we're all on the same page on. We're together on fiscal year 2013. We're working the out years together and we want to get this completed because we know we have a commitment to Congress in order to give you the 1043 report.

Senator NELSON. In the report, you're deferring the construction of the CMR Replacement Facility, which is a key tenet of the commitment to the Senate and Congress during the New START debate. You're adding $150 million to the budget for UPF instead. My understanding is it may cost $500 million over 5 years for such a deferral, and the director of Los Alamos has flatly stated that he cannot meet the DOD requirement for 50–80 plutonium pits per year. But yet you're proposing instead to ship plutonium all across the United States as an alternative.

Just how committed—how committed can we feel to this alternate plutonium strategy if during the course of Congressional investigation it's determined that it's just too costly and makes no practical sense to engage in it? Once the cost is known, it could very easily exceed the capabilities to cover it.

Mr. D'AGOSTINO. We're deeply committed to ensuring that the Nation has the plutonium capability it needs to do the job, do the job to support the nuclear weapons stockpile, do the job in order to do the nuclear forensics for emergency response, and do the job that we know needs to happen in order to satisfy our nuclear nonproliferation work.

We do have capabilities in our *Enterprise*. We have capabilities, significant capabilities, at Los Alamos. We have capabilities at Nevada at the Device Assembly Facility, and we have capabilities at Lawrence Livermore. What we plan on doing is making full use of these capabilities. We expect the deferral for five years of the CMR Nuclear Facility Project, not the cancellation but the deferral, to defer $1.3 billion of liability on the government while we fully utilize the capabilities that we have.

There are a couple of things that have changed from last year that I think are important to point out, because I do—it's very fair to ask the question, well, what's changed in the last year and why would we go about making this change since it was, as mentioned, I think, Senator Sessions, a cornerstone activity—or, Mr. Chairman, you might have mentioned that. A couple of things have changed. First of all, we now are implementing what is known as modern dose conversion factors into the safety basis analysis in our *Enterprise*. What that allows us to do is use modern, agreed-upon international standards for safety basis calculations. This in effect has allowed us to fully utilize the existing brand-new building that you have authorized and has been appropriated and we have done, which is the CMR Radiological Facility.

This just one simple change of using international standards, using modern international standards, has allowed us to significantly increase the amount of work we can actually do in a building that's brand new, that was just built for plutonium.

The second thing that's changed dramatically since last year is the laboratory has just done a marvelous job in reducing the amount of material inside the PF4, which is the 25-year-old roughly plutonium facility that exists. By reducing the amount of material significantly, this allows us to essentially—this was one of the key elements of the nuclear facility, to build a very large plutonium vault. Well, the need and the pressure to build that very large plutonium vault has decreased. We still need a modern plutonium vault, but what we can do is really take advantage of the existing vault that the Nation has right now.

Both of these changes, along with the fact that we have now new insight into our fiscal year 2012 appropriation, which is over $400 million less than what we needed to do the job, and we have the Budget Control Act out year limitations which put additional pressure, caused us to look, take a fresh new look at how we do business, not just programmatically, but also internally on how we do business.

I recognize you may have more questions on that, so I'll stop.

Senator NELSON. My time has expired, but was the decision to try to find more effective ways of space utilization driven by trying to control costs or was it just on its face making sense to utilize the space better? Sometimes the costs can drive it. What we don't want to see is costs driving us into a less than excellent way of handling this project.

Mr. D'AGOSTINO. Absolutely, Mr. Chairman. It's driven by a couple of things. Primarily it's driven by our recognition with the Defense Department that we have a tremendous amount of real work that we have to do on the stockpile. That's number one. Given the fact that we have this tremendous pressure on us, it has caused us to look at all of our business lines with increased scrutiny. That's my obligation to you, sir, and it's my obligation to the taxpayers, it's my obligation to the Secretary and the President, to go look at these things in a way that makes sure that we are capitalizing on what we currently have from a capabilities standpoint—that's the most important thing, having a plutonium capability to take care of the stockpile. I am convinced—and Don Cook can describe the work that he's specifically doing with the laboratory—that it's important to continue the work on the stockpile itself, particularly the life extension on the B61 bomb and the studies in order to get these things done, instead of just saying that we would build a large facility.

We want to exercise our scientists and engineers at our laboratories. It's like exercise, it's good, it's good for our brain and our brains are at the laboratories where they do the work for us.

Senator NELSON. Okay, thank you.

Senator Sessions.

Senator SESSIONS. Thank you.

Well, I would just say if you can make a proposal that shows that you can do the work without a multi-billion dollar new building, I'd be interested in hearing it. Perhaps you could. Everybody

would like a new building and sometimes you really could use one. Sometimes you could use one, but you can't afford one.

But we do have a mission we can't afford to miss, the mission of modernizing our nuclear facilities.

Mr. D'Agostino, how many facilities are there directly involved in the nuclear manufacture and modernization effort?

Mr. D'AGOSTINO. In the—I want to make sure I understand your question correctly, Senator Sessions.

Senator SESSIONS. You can define it as you'd like maybe.

Mr. D'AGOSTINO. Okay.

Senator SESSIONS. What do you think would be relevant to my question?

Mr. D'AGOSTINO. Well, I think we do—we have a real concern on uranium production and manufacture.

Senator SESSIONS. Well, I just asked how many are there.

Mr. D'AGOSTINO. Oh, how many facilities are there involved?

Senator SESSIONS. Yes.

Mr. D'AGOSTINO. In order to take care of our stockpile?

Senator SESSIONS. Right.

Mr. D'AGOSTINO. Hundreds of facilities, sir.

Senator SESSIONS. What about the manufacture and maintenance of them, the core labs and all that are involved? You can see where I'm going. My question is, we're having a BRAC. Probably we're looking at another BRAC, and I'm wondering if there could be savings from some consolidation for efficiency purposes in our historic operations.

Mr. D'AGOSTINO. We've looked at this question. I think it's a great question to ask, and I'll give you the insight of the analysis we have done over the last couple of years here.

Senator SESSIONS. Briefly.

Mr. D'AGOSTINO. Okay, absolutely. The most important thing for us is to maintain capabilities in all the disciplines that we need to take care of the assessment stockpile. So we look at where all of those capabilities exist around our whole *Enterprise*, and we've consolidated those particular capabilities. So we've BRAC'ed along not geographic bounds, but BRAC'ed along functional areas.

So we've decided that it's better to have one area in the country to do uranium work, one area in the country where we press large sizes of high explosives, one area in the country where we do environmental testing on our stockpile itself. What that's allowed us to do is consolidate nuclear material, save money on security costs, and focus our investments so that we don't at the same time we're building a high explosive press at the Pantex facility, we don't rebuild the high explosive pressing capability that exists at Los Alamos, that existed for many decades during the Cold War.

So we are BRAC'ing along these functional areas: high explosives, uranium, plutonium.

Senator SESSIONS. Well, you're doing that as you would like to reorganize, whereas in BRAC an independent commission ultimately tells the Department of Defense or recommends to the Congress how to do that, and of course takes inputs from the agency, the Department that's affected.

With regard to the current situation, you don't disagree, do you, that the budget you have does not meet the necessary DOD requirements?

Mr. D'AGOSTINO. I don't—I agree that the budget that we have before us meets the needs that we've laid out and with the Department of Defense on working on the B61, taking care of the W78 and the W76 warheads.

Senator SESSIONS. But they're not hampered—they don't believe that it fully meets their requirements, isn't that correct? I mean, your customer——

Mr. D'AGOSTINO. It depends on who the "they" are, sir.

Senator SESSIONS.—is the one you need to keep happy.

Mr. D'AGOSTINO. Absolutely.

Senator SESSIONS. So do you dispute that?

Mr. D'AGOSTINO. Well, I have to——

Senator SESSIONS. I mean, presently, as presently configured, the amount of money and the plans that you have to spend it don't meet the requirements that the DOD has said they need to be met.

Mr. D'AGOSTINO. The Nuclear Weapons Council, which represents the strategic commander, represents the Under Secretary for Acquisition, Technology, and Logistics in the Defense Department, the Under Secretary for Policy, and the Chairman and Vice Chairman of the Joint Chiefs of Staff agree that the President's budget that we've submitted addresses what needs to be done, and—I have to add the "and" here because I think it's an important piece of this—and that the Department of Energy and the Department of Defense need to work together, which we are doing, to study the out year concerns and making sure that we get the out years right.

That is—those are the requirements that we have before us and this budget actually does that.

Senator SESSIONS. Well, is it true that this budget would result in a two-year delay of the B61 life extension program, moving the first production unit from 2017 to 2019?

Mr. D'AGOSTINO. It's true that the B61——

Senator SESSIONS. Just yes or no? Does it do that?

Mr. D'AGOSTINO. It results in——

Senator SESSIONS. '17 is what the Defense Department said they needed, did they not?

Mr. D'AGOSTINO. No, the Defense Department in the fiscal year 2013—supports the fiscal year 2013 budget, which says 2019.

Senator SESSIONS. Is it true that this budget would delay the completion of the W76 life extension program by 4 years and that the Navy in response has publicly expressed concern over that?

Mr. D'AGOSTINO. It's true that this budget accurately shows that we have an adjustment in our W76 production rate in order to meet——

Senator SESSIONS. Four years.

Dr. D'AGOSTINO—in order to meet the Navy's operational requirements, and that there may be people—I don't have—I don't keep track of what every Navy person says publicly, but I'm former Navy, so I believe I can say that. But at the same time, we have a program and budget that is supported by the Nuclear Weapons Council.

Senator SESSIONS. Well, when you get to the last lick and the things are up before them and they have to sign off sometimes, I'm not sure that it's a matter of anything other than basically no choice.

Is it true that this budget would delay the previously agreed to schedule for the W78–88 life extension program by 3 years to 2023?

Mr. D'AGOSTINO. It's true that the budget that we have before us causes us to relook at the W78 cycle. These three items, the W78–88 study, the W76 production rate specifically, and the out years associated with that are a part of the study that we're doing with the Defense Department on our out year program.

Senator SESSIONS. Is it true that the budget did not provide the resources necessary to meet the DOD requirement for developing a pit production capacity and capability of up to a minimum of 50 to 80 pits per year in 2022?

Mr. D'AGOSTINO. This budget proposes a deferral of the CMR, which is a 5-year deferral of the 50 to 80 requirement that you mention.

Senator SESSIONS. That would be to 2027 from 2022?

Mr. D'AGOSTINO. The deferral has to do with the CMR, would have to do, depending on when the CMR Nuclear Facility starts construction.

Senator SESSIONS. Well, according to the OMB budget tables, over the next 10 years DOD will transfer $7.1 billion in budget authority to NNSA in support of the memorandum of agreement that was signed in May of 2010 dealing with stockpile modernization and the Chemistry and Metallurgy Research Replacement. And given that the NNSA budget no longer meets the terms of the DOD–DOE agreement, does NNSA intend to return the money back to the Department of Defense?

Mr. D'AGOSTINO. Given the fact that we've received significantly less appropriation by Congress in fiscal year 2012, over $400 million, it's very difficult to recover from that kind of an adjustment. And therefore that simple fact——

Senator SESSIONS. Well, you've told us these cuts, you're okay with them, everybody's fine, there's no problem with these cuts.

Mr. D'AGOSTINO. Senator, I said we have significant——

Senator SESSIONS. I'm showing you that you're delaying the plans significantly in critical function after critical function. You say everything's okay, everybody signed off on it. But we had an agreement at the time the START thing was done. Senator Kyl executed it. I don't think it's being met. I think it's being missed, and we need to have a conversation that's connected to reality.

The reality is that things have slipped significantly from what we thought we were heading toward. Isn't that true?

Mr. D'AGOSTINO. Senator, with great respect, the reality also is true that the NNSA was appropriated more than $400 million less than what we needed to do the job, and that you cannot jump back on the saddle. The President has been very clear for the last 2 years in this commitment. We've put forth and requested 10 percent increases to this particular program. The message we get back is that the environment doesn't exist to support that kind of an increase. We've gotten 5 percent increases consistently. Therefore it has caused us to relook at this program. That's the reality, unfortu-

nately, that I see from my end. And as a result of that, I want to take—we're taking a clean look, not at the program requirements—we are not backing down on the life extension program, we are not backing down on a very significant operationally needed infrastructure requirement on uranium processing. These are absolutely critical. In my view this is not about—this is about what does it take to get the job done to meet the DOD requirements.

And we are working very closely with the Defense Department. I recognize that our Departments, both the DOE and DOD, are large Departments, but we're working very closely at the core center to evaluate the out years situation. We want to solve this problem. We know we can solve this problem. It will require us to look at governance changes, of which I've got—there are many things we can do in the governance area, and I can describe some of them.

But that's what we have to do. We have to figure out how to address and meet the Nation's needs, and I'm committed to that, for nuclear security—

Senator SESSIONS. Well, my time is up, but we're all committed committed, but we need to understand that the funding is not followed through to maintain the goals that we'd set. We might as well be honest about that and put it out here.

I'm saying that if Department of Energy were run by private business I believe you'd be running more efficiently. That's just my opinion. And I don't know how many buildings we'd have to build. I don't know how many different facilities we'd have to keep out there to keep politicians happy. We all like it in our neighborhood. I'm an offender, too.

But we're at a crisis. We're running out of money and we need to do this as a core function of government. I do hope that as we go forward somehow we can get the Defense Department and the Energy Department together, make this occur with the least possible cost.

Thank you, Mr. Chairman.

Senator NELSON. Thank you.

Let me ask the question this way. Is it your opinion that, even though you're now walking away from, let's say, new construction, that what you're doing will not adversely impact the core function that we have of dealing with our nuclear warheads and the other structural requirements for those?

In other words, I thought we were going to have to have a new building because it was going to take the new building as a new—as something that is required to meet those functions. Now, I'm certainly not going to criticize you for finding other ways of doing it. As a matter of fact, I praise somebody that finds a cheaper way of doing the same thing to get the same result. But I think what the fear is that we don't get the same result here because we don't have enough money in the budget and we're patching rather than building. I don't know. That's the concern I think my colleague has and, frankly, I have it, too.

Mr. D'AGOSTINO. Mr. Chairman, you're absolutely—there's a term called "risk management" that we use. Sometimes we throw it around blandly, if you will. But this is something we looked at very closely. Dr. Cook has worked with the laboratory on this idea of deferral of the CMR, about looking at what capabilities exist

across our *Enterprise* in order to ensure that we are accepting the right amount of risk in order to meet the Nation's needs.

We're confident that a 5-year deferral is not going to impact our ability to take care of our stockpile. It will continue in our ability to do the material characterization and analytical chemistry work that we need to do to take care of the stockpile. The Nation will need ultimately a replacement capability because we have a 30-year-old facility right next door that's part of our manufacturing facility, we have a 50, close to 60-year-old facility that's doing the material characterization and analytical chemistry work that we have right now. But we're going to get out of that 60-year-old facility and we're going to use the new part of CMR that's actually built and done, with the changes that I have personally signed up to on using these modern safety codes, in order to allow us to ramp up the amount of work that actually can happen in this radiological facility.

That change alone has meant a lot to both laboratory directors, because they now know that they're in the business; they can do more with the facilities that they have this year and out in the future than they could have done last year. That buys down a lot of the risk.

Senator NELSON. Let's see. The fiscal year 2010 defense bill asked the National Academies of Science to examine how effectively NNSA was managing the quality of science and engineering at the National laboratories. I know you're familiar with this report and its findings. In the second report to Congress on the organization and operation of NNSA, dated February 25, 2002, Administrator Gordon laid out a very basic principle on the NNSA governance, stating: "Federal employees, with contractor input, will establish broad program objectives and goals. Contractors, in consultation with Federal employees, will be given the flexibility to execute programs efficiently and will be held accountable for meeting those goals and objectives."

He further went on to say: "NNSA will develop and implement a simpler, less adversarial contracting model that capitalizes on private sector expertise and experience of its contractors, while simultaneously increasing the accountability, with high performance and responsiveness."

Now, the 2002 report sounds like today. Do you think that NNSA today is meeting those original goals laid out by Administrator Gordon?

Mr. D'AGOSTINO. We've met some of them. We haven't met all of them, and our commitment is to meet all of those particular goals. If I could talk about, just for a second——

Senator NELSON. Sure.

Mr. D'AGOSTINO.—about the National Academy of Science report. One of the first recommendations of the report had to do with it reaffirmed essentially our vision to take a look at these, what previously had been called nuclear weapons laboratories, and we conscientiously said these are national security laboratories, these are laboratories that take care of a broad range of national security needs, not just in the Department of Energy, but also in the DOD, intelligence community, and Department of Homeland Security.

So we reaffirmed our commitment and the actions we were taking on that front, as well as to encourage more laboratory-directed research and development and work for all those activities.

On the particular point you raised, what we have decided to do, working together with our laboratories, we meet on a regular basis. I think it comes down to probably three core things. One is the directives, the Department of Energy directives and the directives we as Federal employees need in order to manage our contracts and make sure that the taxpayer gets what it needs. The second is trust, to build and maintain a level of trust between our organizations. And the third is a level and a consistency in governance.

On the directives side, the Department and the NNSA have separately, but it overlaps, taken a strong look at directives. If I could just give one example, in security, if one takes a look at the security budget request over the last three years, our security request has gone down significantly, over 10 percent in our security area. That's due to the fact that we've simplified, clarified our security directives. That's allowed us to save, essentially reduced our security request from $718 million to $643 million from fiscal year 2010 to 2011.

That savings, that difference of over $60, $70 million, is going right back into taking—to doing the scientific and programmatic work that we need to do. Are we going to stop there? We're going to continue on, because there's more we can do on cleaning up and simplifying our directives.

On the trust area, we've got our laboratory directors. I meet with our laboratory directors on the phone every week. No substitutes allowed. We can't have the deputy or the deputy of the deputy or someone down the line. It's a personal phone call. We have monthly video calls with the laboratory directors, as well as the whole *Enterprise* together, both the Federal and contractor team together, to work out these problems.

We recognize we have a lot more to do on the governance side. And on the governance side, we've taken action and as recently as within the past 12 months, to drive efficiencies by consolidating our contracts between Y12 and Pantex. We've now established a single site office, Federal site office. Instead of having two offices, one in Texas and one in Tennessee, we have an integrated office so that there's no question about a consistent set of documents and guidance and directives that are coming out. It makes it easier to ensure that the things that we talk about, my Deputy Administrator Neil Miller, on pushing forward the concept of integrating as one organization, making sure that actually gets to the contracting officer that has a day to day impact on our particular laboratory.

The final point—and I recognize time is limited—is that we've taken a look and we've brought on board—Admiral Donald was kind enough to allow one of his star performers, Michael Lemke, to come into, report directly to me, and take a look at all of our sites and drive consistency in how our Federal site offices are run, organized, and how they interface with their functional heads.

Previously the site office work was reporting within the weapons program itself, and that provides—that makes it a little bit more difficult for us to drive consistency on functional operations, like human resources, procurement, and contracting. Those types of ac-

tivities drive costs into our laboratories and plants, and that's a piece that we think is very ripe for helping out on.

Senator NELSON. Thank you.

Senator Sessions.

Senator SESSIONS. Mr. D'Agostino, I respect you and know that you're committed to doing the right thing.

Mr. D'AGOSTINO. Yes, sir.

Senator SESSIONS. And I'm pushing you to be aggressive in making progress. But I think you remember the debate over the START Treaty, and my colleague Senator Kyl, with whom I worked very closely, ranking Republican, he was one of the more active members of that entire effort. And he feels like that the agreement that was made in exchange for certain decisions about the START Treaty has been breached and it has not been honored by this budget.

It seems to me plain that that's correct. Am I wrong? Is there another way to look at that?

Mr. D'AGOSTINO. I think there's another way to look at it. I greatly appreciate Senator Kyl's commitment to this mission area. It requires——

Senator SESSIONS. He's leaving the Senate and his belief is that one of the critical issues facing America is to get out of this "we're not going to do anything about nuclear weapons, they're all going to go away one day and we don't have to invest any more money in it," and we have to do what experts have all told us, modernize the weapons systems.

You agree that's a good goal, I trust?

Mr. D'AGOSTINO. Absolutely.

Senator SESSIONS. And that's why it was such a big issue. This was not a little matter. This was—the wording of the thing was discussed with the White House in depth.

So I'm asking you, does not this budget break faith with that commitment?

Mr. D'AGOSTINO. It does not break faith with that commitment. The President has committed and if the fiscal year 2013 budget is authorized and appropriated as proposed there will be a 20 percent increase in essentially a 2-year period of time, or a 3-year period of time, to our program. This is a significant increase by any measure in a very complicated area. That is a——

Senator SESSIONS. The only question I'm asking is—I'm not saying did you have an increase or not. I'm saying did it meet the agreement that was entered into at that time.

Mr. D'AGOSTINO. It met the agreement in order to take care of the stockpile and recapitalize our *Enterprise*. We have, of course, as we've discussed, deferred the plutonium facility for the reasons that I've identified, and that is a prudent risk management approach, given that the laboratory directors and I had actually talked about this before the budget was released, that if faced with challenges the priority is work actually on the stockpile itself. That is why we're going forward with the fiscal year 2013 budget as proposed.

Senator SESSIONS. I'm going to look at the numbers. It won't be long, we'll figure out whose correct about that.

Mr. D'AGOSTINO. Yes, sir.

Senator SESSIONS. It's not going to be words. We've got real numbers on this situation.

Well, Mr. Chairman, we've got other witnesses coming. I won't utilize any more time. I do think it's important that Energy and Defense be more in sync here. I've had a fundamental concern that Energy's focus is too disconnected from the interests of the Nation in getting the system. It's just—to me, we don't have a real good, clear chain of command and interest that would help us.

I think these laboratories have provided fabulous service to America that has kept us in the forefront of the world. But when any institution ages over these many years, not only the building but the whole institutions and bureaucracies, frequently larger and larger numbers of people and efforts get spent on things that are not as critical as they might be. If you're in a competitive business environment, you go out of business if that's so. Sometimes in Washington, when you're not performing up to schedule you ask Washington for more money.

I don't know what the situation is. But it's really important. Thank you, Mr. Chairman, for letting us discuss it.

Senator NELSON. Thank you, Senator.

In that regard, I think there is a continuing question about the independent role of NNSA as it might relate to the Department of Energy, because when Congress created the NNSA in 1999 a principal concern at that time was to create a "semi-autonomous agency" that was free from the larger elements of the Department of Energy, so that it could focus on its core defense-related missions. In fact, if you read the first sentence of the statute it says: "There is established within the Department of Energy a separately-organized agency to be known as the National Nuclear Security Administration." That's exactly what it says.

Can you provide the committee, say maybe within the next 30 days, some legislative suggestions or technical drafting assistance on how the NNSA can still report to the Secretary of Energy, but be more independent of the rest of the DOE? Because I think it was supposed to be on the organizational chart out here [indicating], not down here [indicating]. That's as has been explained to me.

It's probably just sort of similar to the Federal Energy Regulatory Commission, or FERC, as it has a separate independent, semi-autonomous relationship. Could you give us some ideas of that, and then provide us with something if you agree?

Mr. D'AGOSTINO. Mr. Chairman, we'd be glad to work with the committee in any way possible to make sure that we accomplish the objectives of the NNSA Act and consistent with the Department.

I do want to say that we are a part of the Department. We absolutely depend on the Department, the broader Department of Energy's technical infrastructure in order to get our job done, whether it's our NNSA job or not. We are an integrated part of the Department. They need us; we need them.

The key, of course, is making sure that we have the right balance on governance—

Senator NELSON. Yes.

Mr. D'AGOSTINO. And the Secretary—I talked to him today, as a matter of fact, on this topic, because I knew it was important. The question of governance has come up a number of times in the press and now in the hearing today, sir, with both of you. The Secretary wanted me to—first of all, told me that he's committed to continuing to move forward. I can provide to the committee details on where we have moved forward in many areas and what we're planning on doing out in the future. So I'd be happy to work with you, sir.

Senator NELSON. Well, thank you.

Perhaps to put it a little bit differently, I know that you have a certain integration for the mutual responsibilities for your support with the Department of Energy, but Walter Mondale once commented that working from his office in the Old Executive Office Building, that he says "You might as well be in Baltimore." And that speaks volumes about location in this busy town.

I don't want to say that we ought to move your office necessarily, but there is something to be said about a disconnect that comes from different locations. Sometimes it's very, very positive; sometimes it's very negative. I don't think you have to answer that question. I just throw it out as an idea for consideration.

Senator SESSIONS. Mr. D'Agostino, looking at the numbers on the chart I have, I think these are official numbers, we were projected to have an appropriation for total weapons of $7.9 billion this year. It's going to be $7.5 billion; is that correct?

Mr. D'AGOSTINO. Yes, sir, about $7.5 billion.

Senator SESSIONS. This is just not—this is an inauspicious start, would you not agree? I mean, next year it's projected—was projected to go to $8.4 billion, the next year 8.7, the next year 8.9, 9, 9.3, 9.6, 9.8, 10.1 over the 10 years.

So I guess what I'm saying to you, if we're going to have this much of a miss in really the first year of our new agreement, I thought, to modernize our weapons, aren't we facing inevitably a failure to be able to complete what we've committed to do?

Mr. D'AGOSTINO. Senator Sessions, this is our third year of increases that we're asking for in this program. We've essentially received 10 percent increase the first year. We asked for a 10 percent increase the second year, did not get that 10 percent increase. We only got a 5 percent increase the second year. And on top of that, we have the Budget Control Act amendment kind of lid on top of it.

So as a result of that environment, we made adjustments. It would be irresponsible of me to—we have to start—remember, the fiscal year 2012 budget that was appropriated was not what we had asked for. It was over $400 million less, and as a result we received $7 billion. There was reasons for that. I'm not going to second-guess, tell Congress how to do authorizations and appropriations. I'm on the Executive Branch. I'm going to execute the program that's authorized and appropriated, and in fact that's what we're doing.

We do have to take off—you have to use fiscal year 2012, fiscal year 2012 as our jumping off point in order to put together the right program in the out years.

Senator SESSIONS. Well, looking at—how do I read this incorrect? Under the blue line at the bottom of this chart, it says 2012, $7.6 billion; 2013, it looks like we're coming in at 7.5. Why isn't that a decline? Help me on that? You didn't meet the 7.6 last year, either. So you missed the 7.6 last year, is that the answer?

Mr. D'AGOSTINO. We received—in fiscal year 2011, there was a year-long CR in the works. We received an anomaly for the weapons activities account that would allow us to get the full amount consistent with the President's promises. The Congress gave us the anomaly, which was very much appreciated.

In fiscal year 2012 we asked for a very significant increase in this program and we did not get it. The increase in the program was to do a broad scope of work and assumed increases into the out years. That of course was done in a different fiscal environment, and now we have a good handle on the kind of workload that's important to the Defense Department and important to what we need to get done. That is why we've asked for this essentially close to a 5 percent increase overall for the NNSA, and I think actually it's, separating out the defense programs piece, it might even be closer to 7 percent increase for the defense programs piece.

So it's a very strong request and a strong commitment to nuclear security, and particularly working on the stockpile.

Senator SESSIONS. It seems like the numbers just are not coming in to meet the requirement, and that's the whole concern I've got.

Mr. D'AGOSTINO. Yes, sir.

Senator SESSIONS. We don't want to just smooth it over and say, well, we can delay this or delay that. Pretty soon you just don't have the money to complete the mission you've been given, and I'm afraid that's where we are, which is contrary to what we thought we had agreed to after much discussion last year.

Maybe we'll pursue it and we'll submit you some questions for the record.

Mr. D'AGOSTINO. Senator, we're glad to take those.

Senator NELSON. You must feel like this: that we gave you $400 million less than you needed and now we're criticizing you for having $400 million less to deal with.

Mr. D'AGOSTINO. Something like that, sir.

Senator NELSON. Something like that. I understand.

Senator SESSIONS. Well, you need to say that. You need to say: You guys are not giving me enough money to meet the mission you gave me to meet. And if you won't say that it's hard for us to help.

Senator NELSON. Yes, because I was very uncomfortable seeing that $400 million disappear, with the representations that we've made to be fully funded to carry out the program. So my discomfort continues, and I commend you for trying to find ways to do the same amount that you needed to do in a different way with less. We're all faced with that. We just don't want to be critical. What we want to know is will—as some things slip, will the mission slip? And if you tell us no, the mission is not going to slip, even though you may defer some things, then I perhaps would feel better.

But I would have felt a lot more at ease with the $400 million being in your budget to do it the way we were initially representing to others that we were going to do it.

Mr. D'AGOSTINO. Thank you, Mr. Chairman.

Senator NELSON. Thank you.

I think, Dr. Cook—oh, I want the second panel. I guess let me do it the right way here. The second panel, we've got: the Honorable Donald Cook, Deputy Administrator for Defense; Admiral Kirkland Donald, Deputy Administrator for Naval Reactors and Director of Naval Nuclear Propulsion; and Dr. David Huizenga, Senior Advisor for Environmental Management, all from the Department of Energy. We appreciate your being here.

″Hie-ZEN-ga." I'll get it right one of these days. I may just call you "Doctor H," I don't know.

Mr. HUIZENGA. That will be fine, sir.

Senator NELSON. Let's see. Would you like to make some opening statements, brief? I know you have statements for the record, but please, if you would. Why don't we start with you, Admiral Donald, and move in that direction.

STATEMENT OF ADM KIRKLAND H. DONALD, USN, DEPUTY ADMINISTRATOR FOR NAVAL REACTORS AND DIRECTOR, NAVAL NUCLEAR PROPULSION, NATIONAL NUCLEAR SECURITY ADMINISTRATION, DEPARTMENT OF ENERGY

Admiral DONALD. Mr. Chairman, thank you very much, and Ranking Member Sessions. I do have an opening statement I would like to make if that's suitable to you. I appreciate the opportunity to testify before you today on the naval reactors fiscal year 2013 budget request. Our budget request is for $1.1 billion and this funding provides the resources required for the day to day work associated with the safe and reliable operation of 104 naval nuclear propulsion plants, plants which provide power to more than 40 percent of the U.S. Navy's major combatants.

The fiscal year 2013 budget also supports the President's national security strategy with the continued development of the *Ohio*-class replacement submarine and stewardship of our naval nuclear infrastructure. As you know, the Department of Defense has decided to delay the *Ohio*-class replacement by 2 years. The naval reactors fiscal year 2013 request reflects that shift and supports the Navy's revised shipbuilding schedule, while ensuring the continuity of a sea-based strategic deterrent.

The budget further provides funding for the land-based prototype refueling overhaul, a critical aspect of the development of a life-of-the-ship core for the *Ohio*-class replacement. Core manufacturing, development, and demonstration for a life-of-the-ship core will be performed as a part of this project. By constructing the replacement core for the prototype with the technologies we plan to use for *Ohio*-class replacement, we will mitigate technical, cost, and schedule risks associated with that ship construction program.

Finally, resources are requested for the recapitalization of the aging spent nuclear fuel handling facility at the Naval Reactors Facility in Idaho. As you may recall from previous testimony, we must remain in compliance with the 1995 Idaho settlement agreement for movement of our fuel from wet storage to dry storage and ultimately for disposal. While working to meet this commitment to the people of Idaho, that aging infrastructure must also support the demands of a challenging refueling schedule for our nuclear-powered fleet, most specifically our *Nimitz*-class aircraft carriers.

Mr. Chairman, the naval reactors budget for fiscal year 2013 is consistent with the goals set out for the Budget Control Act of 2011. However, as Mr. D'Agostino has pointed out, the out years with the placeholder numbers between fiscal years 2014 and 2017 is less than naval reactors' validated requirements and is subject to review between the Department of Energy and the Department of Navy.

Within these constraints, my first priority must be to safely sustain the naval reactors fleet support and regulatory oversight mission within our baseline funding, followed by continued progress on these major projects. Within the Budget Control Act funding constraints in the out years, I cannot deliver the very important projects and maintain the proven standards of oversight and technical support that will continue to ensure nuclear fleet safety and effectiveness. Given the vital importance of our nuclear ships, the growing challenges of both the high operational tempo and an aging fleet and the grave consequences of even the perception of eroding day to day standards and support, I must apply my resources as available to sustaining today's nuclear fleet, which prevents me from progressing on the new projects absent some additional funding to be addressed in the out years.

As a result, the fiscal year 2013 budget will maintain the land-based prototype refueling overhaul to be executed in 2018. The fiscal year 2013 request will support reactor design for the *Ohio*-class replacement on the Department of Defense revised schedule, but it will not support the recapitalization of the spent fuel handling infrastructure in time to support the existing plan for refueling of CVN–73, USS *George Washington.*

We're currently reviewing options as work-arounds, but all options will include some additional cost and risk. I will keep this committee apprised of that analysis.

In addition, I'm further forced to consider deferral of maintenance of facilities work, decontamination, and decommissionings across our infrastructure. But I understand the impacts of those and we judge those to be prudent risks to be taking at this time.

I recognize that we've come before you today in some very daunting fiscal constraints, some we haven't seen in decades. Prior to initiating these new projects in 2010, I embarked on a large-scale strategic alignment of funding as well as significant initiatives to streamline our support infrastructure and gain cost savings and efficiencies, such as combining the maintenance, management, and operations contracts for our two laboratories.

I respectfully ask that you consider the contributions of our program that we make every day to national security and will be required to make well into the future to meet our strategic objectives.

I would like to point out before I close one important milestone for naval reactors and for the Nation. This year marks the final deployment of the world's first nuclear-powered aircraft carrier, USS *Enterprise*. Commissioned in 1961, *Enterprise* will deploy—has deployed for the last time as of Sunday. No other ship better illustrates the successes and evolutions of the nuclear-powered Navy like the *Enterprise*. She has served us well since 1961. After her final deployment, she'll commence her inactivation in November 2012.

Chairman Nelson, pending your retirement and the completion of my term as the Director of Naval Reactors later this year, this will likely be the last time that I get to testify before you, and I thank you. It's been an honor to work with you and I thank you for all that you've done for my program and for the U.S. Navy.

My written statement has been submitted for the record and I look forward to responding to any questions that you may have.

[The prepared statement of Admiral Donald follows:]

Senator NELSON. Thank you, Admiral.

Dr. Cook—do you have a question? Sure.

The Senator has a 4 o'clock that he's got to take, and so he's got a question. We'll just go out of order and we can wait.

Senator SESSIONS. Thank you very, very much, Mr. Chairman.

Mr. Huizenga, the request for the fiscal year 2013 for environmental management is $5.49 billion. That is almost $500 million more than the level appropriated in fiscal year 2012. You and I briefly discussed it before. You indicated it was not an increase, but it seems to be delineated on page 377 of your Department of Energy budget manual, and that money is for a defense environmental cleanup contribution program.

Given the environmental management funding is part of the security spending, how do you justify that large an increase for environmental management while we're getting a $371 million reduction from Dr. Cook from the funding level that was planned for fiscal year 2013 for the weapons program? It appears to me that the National security requirements of weapons modernization has been reduced in favor of additional money in environmental cleanup; is that correct? And if you'd like to answer for the record, you could do that. But if you've got a brief response to that now, I'd be glad to take it.

STATEMENT OF DAVID G. HUIZENGA, SENIOR ADVISOR FOR ENVIRONMENTAL MANAGEMENT, OFFICE OF ENVIRONMENTAL MANAGEMENT, DEPARTMENT OF ENERGY

Mr. HUIZENGA. Sir, thank you for bringing that up. I think maybe I misunderstood before. Our overall request of $5.65 billion this year is down about 1 percent, or just a little bit more than 1 percent, from the request from last year. That's what I was referring to in our previous conversation.

I think that with the overall constraints that we do find ourselves in this year, we believe that our request will allow us to meet our compliance agreements and commitments to the citizens around these facilities that supported us in the Cold War efforts, and we think it's a responsible request, sir.

Senator SESSIONS. Well, I'll be glad to examine it and I may follow up with a more detailed question.

Thank you, Mr. Chairman. It's been an excellent hearing.

Admiral Donald, thank you for your work and your patriotism, all of you. All of those associated with the labs have done really great work. But it just may be in this point in history that it's time for a rigorous reevaluation of the massive amounts of moneys that are being handled. Maybe some of the bureaucracies need to be realigned and people reorganized and we could get more production and maybe save some money at the same time.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Huizenga follows:]

Senator NELSON. Thank you, Senator. I appreciate it.

Dr. Cook.

STATEMENT OF HON. DONALD L. COOK, DEPUTY ADMINISTRATOR FOR DEFENSE PROGRAMS, NATIONAL NUCLEAR SECURITY ADMINISTRATION, DEPARTMENT OF ENERGY

Mr. COOK. Chairman Nelson, Ranking Member Sessions: Good afternoon. I want to thank you for the opportunity to come here to testify before you on the President's fiscal year 2013 budget request.

The fiscal year 2013 budget request provides $7.57 billion for weapons activities. That's an increase of 5 percent. Within that, the amount for defense programs is $6.23 billion. That's an increase of $420 million in fiscal year 2013. NNSA, as you know, has the responsibility to maintain a safe, secure, and reliable nuclear weapons stockpile to help ensure the security of the United States and of its allies, to deter aggression, and to support international stability.

Maintaining safe, secure, and reliable stockpile necessitates continuing progress in mission-essential sciences to achieve accurate health and status assessments of our aging nuclear weapons systems. Over the last decade, NNSA has been devoted to filling this need.

The $17 million increase in this year's budget request for science campaigns further demonstrates the administration's support. The science and the experimental tools developed by defense programs allow our scientists, our technicians and engineers to perform the needed assessments of the weapons systems and the components within to ensure that the effects of aging have not deteriorated the desired performance levels and to guarantee the safety, the security, and the reliability of these systems without having to resort to a new underground nuclear weapons test.

I should note that September 2012 will mark the 20th consecutive year in which we have not required a nuclear test in order to ensure the safety, the security, and the reliability of our weapons stockpile. The stockpile stewardship program is working.

As these systems, designed in the 1960s and 1970s, continue to age, life extension activities are required to preserve the established safety, security, and reliability thresholds. The fiscal year 2013 budget request includes a $214 million increase to the directed stockpile work that supports the W76, B61, W78, and W88 life extension programs.

We've worked diligently with the Department of Defense and the Nuclear Weapons Council in crafting the programmatic schedule that is necessary to meet the NWC's requirements established for these systems. The B61 is a critical component of the U.S. strategic and of the extended nuclear deterrent. The current system is among the oldest in the stockpile. It's got key non-nuclear components that are reaching their end of life and in need of replacement. The B61 life extension program will allow consolidation of four variants into a single version of the B61 bomb, allowing the NNSA and the Department of Defense to save on long-term

sustainment costs, enable future stockpile reductions, ensure safety, and reduce the amount of special nuclear material used. The Nuclear Weapons Council has endorsed entry of the B61 life extension program into phase 6.3, the engineering development phase.

Defense programs is also charged with maintaining and replacing the infrastructure that provides the foundation and basis of the nuclear security *Enterprise*. Some of the facilities have survived beyond their lifespan and are in dire need of replacement. The efforts and activities executed within defense programs are vital to the Nation's nuclear deterrent and in order for this critical work to continue we have to have both a safe and a secure operational environment.

The President's budget request includes an increase of $179 million in fiscal '13, enabling accelerated construction of the Uranium Processing Facility at Y12. The completion of this facility will allow our personnel to vacate Building 9212 at Y12, which has already endured 63 years of operational use and it poses one of the highest programmatic and operational risks across the nuclear *Enterprise* should it fail. NNSA has determined that an acceleration of the Uranium Processing Facility at Y12 is required to ensure continuity of our sole uranium manufacturing capability.

We're also working with the General Services Administration on completing the construction of the Kansas City Responsive Infrastructure Manufacturing and Sourcing Campus, known as KCRIMS. We will begin transitioning to the new facilities in 2013. We will complete the transition in 2014.

We'll also finish the construction of the High Explosive Pressing Facility at Pantex in fiscal year 2017. That's designed to support the life extension programs. And we will start construction as well of the Transuranic Waste Facility Phase B at Los Alamos. The Resource Conservation Recovery Act, or RCRA, permit modification approval is expected by the State of New Mexico still in fiscal year 2012.

With all that said, however, under the Budget Control Act we now face new fiscal realities. Adding to this fiscal challenge is the fact that the funds appropriated to the NNSA weapons activities in fiscal year 2012 were $416 million less than the President's request and that forced us to make tough decisions on which projects can or cannot be executed at this time.

In light of these actions, we've been compelled to deviate from our previous strategy and to modify our programmatic schedule to meet the Nation's immediate military requirements. Through coordination with the Department of Defense and the Nuclear Weapons Council, we have selected a path forward within the Nation's budgetary limitations. One of the decisions selected is the deferral for at least five years of the Chemistry and Metallurgy Research Replacement Nuclear Facility Project planned for Los Alamos National Lab. Deferring CMRRNF, as we call it, will create an estimated $1.3 billion in cost avoidance over the next five years, permitting the funding of the most critical programs and capabilities, such as the weapons life extension programs I've already mentioned and an accelerated UPF construction profile.

We will continue to maintain our plutonium capabilities by utilizing facilities at Los Alamos, such as the PF4, Plutonium Facility

No. 4, and a part of the CMRR project already constructed, that is the radiological lab and utility office building. That building, incidentally, has been completed ahead of schedule and under budget.

In agreement with the Nuclear Weapons Council, we have delayed the first production unit of the B61–12 gravity bomb to 2019, but we will still meet the military requirements of the Nation. And despite the tough decisions made, we remain resolute in meeting the Nation's operational requirements, and we intend to remain vigilant in our mission to ensure the safety, security, and reliability of the Nation's nuclear weapons stockpile.

Lastly, we recognize that a critical element of our enduring mission is the need to maintain healthy relationships between the national labs, the production plants, the Federal site offices, and headquarters. We're implementing governance and oversight transformations in order to streamline how NNSA will do business, reduce the cost of operations, and increase productivity, and we will strive to maximize mission performance while maintaining or enhancing overall safety and security of the nuclear security *Enterprise*.

I want to thank you again for the opportunity. I'll look forward to answering questions.

[The prepared statement of Mr. Cook follows:]

[SUBCOMMITTEE INSERT]

Senator NELSON. Thank you.

I'm going to try to get it right: Dr. Huizenga.

Mr. HUIZENGA. Excellent, sir. It's a good Dutch name and you got it just right.

Senator NELSON. Thank you.

Mr. HUIZENGA. Chairman Nelson, I'm honored to be here today to discuss the positive things that we are doing for the Nation through our ongoing efforts of the environmental management program. Our request of $5.65 billion enables the Office of Environmental Management to continue the safe cleanup of the environmental legacy brought about from five decades of nuclear weapons development and government-sponsored nuclear energy research.

Our cleanup priorities are based on risk and our continuing efforts to meet our regulatory compliance commitments. Completing cleanup promotes the economic vitality of the communities surrounding our sites and enables other crucial DOE missions to continue. By reducing the cleanup footprint, we are lowering the cost of security and other overhead activities that would otherwise continue for years to come.

In August 2011, the Office of Environmental Management was aligned under the Office of the Under Secretary for Nuclear Security, as was pointed out by Under Secretary D'Agostino earlier this afternoon. This realignment promotes the natural synergies that exist between EM and NNSA. For example, at the Oak Ridge National Laboratory we're working with NNSA to accelerate the transfer of certain components of uranium-233 inventory. This inventory is valuable for national security applications and supports NNSA's missions related to safety, nuclear emergency response, special nuclear material measurement, and detection. This initiative will result in cost savings for EM and enable us to move for-

ward on a cleanup of nuclear facilities in the heart of the Oak Ridge National Lab.

Over the years the Office of Environmental Management has made significant progress in accelerating environmental cleanup across the departmental complex. For example, last December at the Defense Waste Processing Facility Savannah River site in South Carolina, we solidified a record 37 canisters of highly radioactive waste, marking the most canisters filled in 1 month in the facility's 15-year history.

Out West, at the Moab site in Utah we celebrated the removal of 5 million tons of uranium tailings from the site to a safe location away from the Colorado River. Through 2011 we safely conducted over 10,000 shipments of transuranic waste to the Waste Isolation Pilot Plant in New Mexico, the world's largest operating deep geologic repository.

As you can see from these accomplishments, the Office of Environmental Management has made great progress and will continue to do so with your help. We could not have achieved such notable accomplishments without an outstanding Federal and contractor workforce. The safety of our workers is a core value that is incorporated into every aspect of our program. We've maintained a strong safety record and continuously strive for an accident and incident-free workplace. We seek to continue improvements in the area of safety by instituting corrective actions and by aggressively promoting lessons learned across our sites. In collaboration with the Department of Energy's Office of Health, Safety, and Security and our field sites, we're working to achieve a stronger safety culture within the program, thereby improving the safety of our construction and operations facilities.

We will continue to identify opportunities to reduce the life cycle costs of our program, including the development of new technologies and other strategic investments. For example, in 2013 we will continue our efforts to develop technologies that allow for the segregation and stabilization of mercury-contaminated debris and improve groundwater monitoring.

We continue working with the Government Accountability Office to institutionalize improvements in contracting and project management. We have established project sponsors at headquarters for all of our capital asset projects and conduct regular peer reviews of our most complex projects. We're actually using U.S. Army Corps of Engineers personnel who have demonstrated experience in project and contract management on these project review teams. We are committed to becoming a best in class performer in this area.

Chairman Nelson, we will continue to apply innovative cleanup strategies so that we can complete quality work safely, on schedule, and within cost, thereby demonstrating our value to the American taxpayers.

Thank you, and I would be pleased, as the others, to answer any questions you may have.

Senator NELSON. Thank you. Thank you all three.

Admiral, what is it, fair seas and prevailing wind, or whatever; may I wish you that.

Admiral DONALD. Thank you.

Senator NELSON. Thank you for your service.

Dr. Cook, you mentioned the B61 gravity bomb, but it's my understanding you've been recently granted the go-ahead for the engineering work on the B61 gravity bomb. If that's true, it's good news and congratulations. Of course, the question that follows is when would you be able to provide us with a design definition and cost estimate study, or more commonly called a 6.2A study, for the life extension of the B61 that would come from this work?

Mr. COOK. The short answer is we expect to provide a full report by July. We're doing costing work now between NNSA and the Cost Analysis and Program Evaluation Group, or CAPE, of DOE. That work is aggressively under way, and it is a fact that the Nuclear Weapons Council Chairman Frank Kendall signed out the authorization letter, and so we're now going through the steps we require and are normal to begin the engineering work.

Senator NELSON. Very good. In connection with the extension, in DOD any major acquisition program requires by statute an independent cost estimate by the Cost Analysis and Program Evaluation Office. Do you believe that it's sound policy and likewise should be so for any major extension program or similar large engineering weapons effort in the NNSA as in the case of the B61?

Mr. COOK. I generally do, sir.

Senator NELSON. Also, what is the—Dr. Cook, what's the status of the 6.1 study on the W78 warhead, and do you think having a common warhead with the W88 is feasible?

Mr. COOK. The current status of the W78/88 study is that, first, it is joint. The study has both Air Force and Navy participation, certainly NNSA participation with our labs, and some elements of the production plants, as well as U.S. Strategic Command and DOD civilian participation. So we believe that we are likely to complete the 6.1 study this fiscal year and move into a 6.2 study. 6.2A comes later, but we still have more work to do. So that will be a topic for Nuclear Weapons Council determination later in the year.

Senator NELSON. It's my understanding that the DOE worked with the DOD to transfer some $8 billion budgetary authority over the next 10 years to perform a number of tasks, one of which was to complete design and begin construction of the Chemistry and Metallurgy Research Replacement and commence operations by 2022. As part of this transfer, my understanding is the DOE was to plan to produce 50 to 80 pits per year in 2022 in the Los Alamos PF4 facility which makes the plutonium pits. Do you still believe that there is the ability to produce 50 to 80 pits per year and that that's a valid requirement? And will you have to renegotiate the 2022 date for making those 50 to 80 pits per year based on your decision to defer the construction of the CMR replacement building?

Mr. COOK. If I could I'd address several points of your question, and I'll try to speak fairly quickly.

Senator NELSON. Yes, sure.

Mr. COOK. With regard to CMRR and the Uranium Processing Facility, I will link those, and the life extension programs, our strategy is a balanced strategy. We have worked it through with the Armed Services, with U.S. Strategic Command, and DOD. When we looked at the key priorities first for B61, would we start

that or not, for the Uranium Processing Facility and the CMRR Nuclear Facility, there was a very large body of work, and the requirement for providing cost for that to do all three in parallel did not look like it could be supported in the budget reality that we have. There was a change in '12, as you all know, and going forward we determined that we would choose not to delay the B61, and there's a sizable investment there.

We determined that the most cost-effective strategy for the Uranium Processing Facility, where we don't have another option because we make the secondaries in 9212, the best cost strategy would be to actually accelerate the UPF conventional construction. We'll deal with the tooling near the end of the project, but we want to move aggressively once the conventional construction is completed in the period of a few years to move out of 9212 because of the large operational and programmatic risk. It's our intent to begin that migration in 2019.

With regard to CMRR now, a piece that's already done is the radiological lab, as mentioned already. We will substantially complete the engineering design for CMRR in 2012 and we will tie that up with a cost estimate for that design when we then defer construction. But it's a rational point. And without that deferral on CMRR we could not do both the B61 and the Uranium Processing Facility. So it was a conscious choice.

With regard to now the pit numbers, it's a fact that what we're doing with the W76 life extension, known as the 76–1, and what we intend to do with the B61–12 is pit reuse. There are three different approaches here. They're certainly written in our program plans. One is pit reuse, one is pit refurbishment, and one is manufacturing newly manufactured pits, but of existing design. No new military requirements or characteristics that are essential.

So to get to the end of the answer, we do believe that we can continue conducting a very aggressive modernization program for life extension programs by using all three of those. But the real impact of the decision to defer CMRR by five years means that it will not be operational by, the correct number was 2023, as we laid out in the last set of reports last year. That will now not be sooner than 2028.

But I again will emphasize, as the Administrator has, we've not cancelled it. We have decided that the immediate need was to support the B61 life extension program as it is the oldest weapons system that we have in our stockpile. I think I've mentioned the rest.

Senator NELSON. Thank you. Do you agree with Mr. D'Agostino's risk management and risk assessment and risk analysis comments about that this will not impair the ability to move forward with the missions that are being undertaken?

Mr. COOK. I absolutely do. I'll state that we have made conscious decisions to have a balanced program, and part of those decisions has been to accept a higher risk and to manage that risk. So we have many talented people. They understand the decisions that we've taken and we're going forward with the priorities that we have agreed at the Nuclear Weapons Council.

Senator NELSON. Can you explain the differences in numbers for the B61 and W76 warhead life extension programs? In your fiscal year 2012 budget submission you were going to request for fiscal

year 2013 about $279 million for the B61 and $255 million for the W76 life extension programs. This year, for the fiscal year 2013 request we see you requested $361 million for the B61, $82 million more than you thought you'd need last year, and $175 million for the W76 life extension program, actually about $80 million less than you thought you'd need last year.

Mr. COOK. That is accurate. So this is part of the trade study that we did and the balance. We recognized we had—as more work was done on the B61–12, when we went through the options in the decisionmaking process for the Nuclear Weapons Council, we wound up taking, not the largest cost option and not the lowest cost option, which would not have been a life extension program but only replacing limited life components. The latter would have driven us into either needing to take that weapons system out of service in a matter of time or we would have just kicked down the road for a few years, maybe 5 years, possibly 10, a more aggressive life extension program for the B61.

So you see that that larger cost estimate for the B61 is reflected in the President's request for fiscal year 2013.

With regard to the W76, the strategy is that we will build the hedge for the W76–1s after we have supported all operational requirements. Once again, there's no question that we are taking a somewhat higher risk. We have used up some of the margin that we might otherwise have in building ahead should we have an operational difficulty in manufacturing the 76–1s, and the budget reflects having a rate of manufacturing and production which is comparable to the current rate, extending the hedge-building at the end of the operationally deployed weapons.

Senator NELSON. What is the effect of this lower request number for fiscal year 2013 on the W76 program with the Navy's submarine fleet?

Mr. COOK. I'll say where we are in the President's request. We believe that we have a manageable program, but there is very little margin for error. So NNSA is working with the Navy to understand some of the details now of the Navy requirements, at the same time that we're sharing in a very open and transparent way what our operating plans are at Pantex for assembly or at Kansas City site for components.

We're working that together. If we determine that there's something that has a risk that we feel we cannot manage, that the risk is too large, then we'll make accommodations for that when we determine it. At this point we've not yet found a major stumbling block.

Senator NELSON. So this is a dynamic effort that could change depending on what risk assessment you might do as you engage in the life extension?

Mr. COOK. That is correct.

Senator NELSON. Admiral Donald, from our discussion the other day I understand the Department of Defense is moving the construction of the first *Ohio*-class replacement submarine by 2 years to 2021, which saves some $4.3 billion over the next 10 years. And I understand this has also impacted your budget profile, such that last year you were going to ask for $149.7 million for fiscal year 2013 and this year it is now $89.7 million, down some $60 million.

Can you explain to us what impact this will have on the funding reduction and whether it affects any other portions of the naval reactors program?

Admiral DONALD. Yes, sir, Mr. Chairman. The decision was, to extend the OHIO replacement, delay it 2 years, was part of a larger discussion to address the Budget Control Act reductions with the Department of Defense overall. I participated in that decision-making process both from my point of view as the hat in the United States Navy, but also with great interest from my role in NNSA. I agreed with that decision, acknowledging there's risk, and I'd characterize the risk in two categories.

First is programmatic risk, and implicit in the decision is that the resources would be made available to conduct the work so that we can start construction on the ship in 2021 with a sufficiently mature design, such that we can control cost, schedule, and deliver a quality product. On the Department of Navy side, the DOD side, that is the case. In fiscal year 2013 and beyond, the resources are there for us to execute that program as we deem necessary and effective.

On the NNSA side, fiscal year 2013 I'm comfortable with the resources I have. But, as Mr. D'Agostino pointed out, the placeholder numbers that are in the fiscal year 2014 through 2017, if they were to remain in place I would not be able to fulfil that obligation to deliver the reactor plant for that ship on time. That's acknowledged both in the Department of Defense and NNSA, and the work to resolve that is ongoing right now.

Senator NELSON. Is that part of what you would call the appropriations risk?

Admiral DONALD. Yes, sir.

Senator NELSON. That's not a risk—it's a risk you assume, but not one you have a lot of control over, right?

Admiral DONALD. Yes, sir.

Senator NELSON. It's on this side of the desk we've got to reduce that risk; is that a fair way of saying it?

Admiral DONALD. Yes, sir.

Senator NELSON. I understand.

Admiral DONALD. The second element of risk is operational risk, and what that delay entails is that the number of SSBNs available for the strategic mission when you get out to 2029 to 2041, a long way off obviously, but that's when the first of the *Ohio*-class replacements will be coming on line with the delayed schedule, that will result during that period of a time when we only have 10 SSBNs available to fulfil the strategic mission.

Now, remember we've reduced the number of SSBN's required from 14 to 12. That was based on our action to develop the life-of-the-ship core so we could eliminate the midlife refueling, minimize the time in maintenance, and improve the operational availability. So there was already some risk associated with that. Then this further adds to that risk.

So it's acknowledged that that—if the strategic requirement does not change, there will be some periods of challenge during that window of time with that number of ships out there to meet STRATCOM's requirements for ships at sea and ships available on notice.

The second aspect of that operational risk is a recognition that in 2029—that's right before the first *Ohio*-class replacement comes on line—the average age of the ballistic missile submarine force will be 37 years. That is well—that is in excess of, on a class basis, of anything we've ever done in the past. We acknowledge that that does come with some risk. We are certainly committed to mitigating that risk and we do take good care of these ships to ensure they last for their full life expectancy.

But, as with anything that arrives at that age with that operational tempo that they fulfil, there is a certain risk that ships may not be available because of things that—material problems and things of that sort. That tends to be the situation with ships of that age.

Senator NELSON. Is it fair to say that—this goes to Dr. Cook as well—that in life extensions, we're able to make those life extensions because as time goes by we develop new ways, new methods of life extension? In other words, some things we can't change, but other things that we learn we can improve? And is that one of the reasons why we get life extensions beyond where the original projections?

Admiral DONALD. I would say there's a couple of issues that are a part of being able to extend the life. First, it starts off with a good design from the beginning, and if you look at the *Ohio*-class submarines that was a very well designed ship. It was designed to be maintained over a long lifetime. That facilitates our ability to maintain it and maintain it effectively.

Second, you do have to invest in the maintenance as you go along. It's not one of these things where you can periodically—it's just like changing the oil in your car. If you do that when you're supposed to, you're going to get the life out of it that you would fully expect to get for an investment of that nature.

The third thing is, you do in fact learn things as you get more experience with the design, as life goes on. We see that even today in such mundane things as how do you prevent rust and corrosion and add life. You get a sense of the operational tempo of the ship and how much fatigue stress and things like that. So you do learn as you go along.

But the fourth thing, and I think it's critically important, is applicable both to Dr. Cook and to me as well, is that you have the technical resources at your disposal to address issues as they arise, and they do. Unexpected things do come along. You do have to address those types of things with knowledgeable people, with engineers, designers who understand that, who have the experience to deal with those types of things. Hence the importance of the intellectual capital that we have in our laboratories to go and address those. We see that to this very day.

Senator NELSON. Very good.

Doctor?

Mr. COOK. If I can follow up to Admiral Donald, I agree that many of the things he's mentioned are correct in weaponland as well. When we talk about science and weapons science, we could use words such as the "core capability" for the national lab directors to do annual assessments of the existing stockpile. That's one of the most important jobs that we have. And you could tell from

my voice we are proud that the stockpile stewardship program has given us 20 consecutive years of not having to go back to do underground testing.

The fact that these weapons systems are so thoroughly surveilled—and you are well aware and you supported a more aggressive surveillance program for the past few years—that gives us an ability to determine with data which parts of these weapons systems give us the most concern, and by the people, as Admiral Donald said, who are most technically able to do that for weapons within the weapons labs.

So that's the choice. In fact, sometimes we say we can go further on because some of the concerns have not grown more severe, where in other systems something unanticipated happened, but, thankfully, corrosion or whatever occurred was noticed and now we know we need to adjust our schedules.

Senator NELSON. Admiral Donald, I know you maintain a large fleet of reactors at sea that's funded by the Navy. Can you explain any impacts that the Budget Control Act might have on these reactors?

Admiral DONALD. Yes, sir. I in my opening statement discussed my first priority is to ensure the safety and effectiveness of those reactors that are operating at sea, the two that we have in land-based locations, and the two that we have in shore facilities as well. That's my charter, that's my responsibility, and when it comes to applying my resources that's where they will be applied first. That is my strategy right now for dealing with, if there should happen to be some shortfalls in the overall budget, that I will first make sure that the fleet is operating safely and has what they need to continue to operate, and then I will apply my resources to the projects, whether they be the replacement for the *Ohio*-class, the land-based prototype refueling, or the expended core facility in Idaho. I will deal with those next in order.

Senator NELSON. But there could be some implications to the rest of the budget, that you might have to rob one account to take care of the other account to take care of the safety of the reactors; is that fair to say?

Admiral DONALD. That's correct, yes, sir. The first priority is safety of those reactor plants.

Senator NELSON. Admiral Donald, can you explain the status of the construction of the new spent fuel pool at the Idaho National Laboratory?

Admiral DONALD. Yes, sir. The spent fuel handling facility recapitalization project that's in my budget, I do have $28.6 million this year to do some conceptual work and also some environmental studies. This facility is vital to our business. This is where all of our spent fuel goes to be examined and ultimately processed into dry storage. It allows us to—the facility allows us to meet our commitments to the State of Idaho, but also to support the operating fleet, to ensure that the cores that we load into these ships perform as we expect them to perform.

This facility is aging. It's 50 years old in many parts of it. It has its challenges, whether it be seismic certifications, whether it be leaks and things of that sort, that we manage on a day to day

basis. But it is aging and needs to be replaced, and that's the project that we're here to undertake.

Senator NELSON. So you're not going to be in a position where you can use both simultaneously? One will replace the other? I understand that there's already another spent fuel pool at the Idaho Laboratory, but that you're designing for a new one. My question is will you be able to use both or will the new one replace the old one?

Admiral DONALD. We have an existing facility that needs to be replaced. There is also another water pit facility.

Senator NELSON. That's operational?

Admiral DONALD. That's operational. It's Building 666, as it's referred to in Idaho. We have looked at that as a potential source for us to use during—whether during the interim as a part of the transition from our old facility to the new facility. We found it to be unsatisfactory. It doesn't meet our requirements from a capability point of view, from a capacity point of view, and from a timing point of view.

Specifically, the water pit is not configured properly to handle the fuel that we're bringing, we will be bringing off of our aircraft carriers. It's not deep enough. The fuel is in a configuration that's too long. There are a couple of locations in the water pit where it would handle that longer fuel, but those locations are currently occupied by existing spent fuel that won't be out of that water pit until the 2023 time frame. And even if it were available, it wouldn't be of sufficient capacity to deal with the flow that we have coming off the ships.

The other aspect of this facility is, even if we tried, there'd be some significant facility modifications that would be required, whether in additional cranes, raising the height of the building to support the extra length of the fuel. All of that would have to be done in a radiologically controlled area, which would add significantly to the cost.

So we looked at it both in 2005 and 2009 and concluded that, no, it did not meet the need. And ultimately it doesn't—we'd still have to have a new facility at our facility anyway to deal with this 50-year-old facility we've got right now.

Senator NELSON. I understand. Thank you.

Dr. Huizenga, I understand you've recently taken over the job of managing the DOE's Office of Environmental Management. Congratulations again.

Having said that, what is the status of the Hanford Waste Treatment Plant and when will you begin to drain the high-level waste tanks into the plant to produce what are called, I guess, glass logs?

Mr. HUIZENGA. Thank you, sir. You did point out we were on the front page of USA Today in your opening remarks, and I will try to address that. It's a complicated, extremely large facility, of course, with many different individual facilities. The good news is that four out of the five major facilities we're making steady progress on. I think it's fair to say that we do have some issues with the final one, the pretreatment facility, and we're indeed in the process now of trying to work through some testing to ultimately prove that that facility will be able to mix these complicated wastes in a satisfactory fashion.

So we are making steady progress on some, we're working on testing for the others. The fiscal year 2013 funding level will allow us to continue to make steady progress and do this testing and also work on the tank farms that are associated with this facility that will ultimately feed liquid into these facilities. So we think we've got a solid strategy for success.

Senator NELSON. What's the status of the salt waste processing facility at the Savannah River site? I understand there may have been some cost overruns and some delays in that project.

Mr. HUIZENGA. Yes. As a matter of fact, I was down there earlier this week with Under Secretary D'Agostino. We had an opportunity to walk through that facility personally and ask a lot of questions, make sure that we are indeed understanding what needs to be done.

The biggest problem that we have there, frankly, is we have some complicated vessels that are being manufactured and we've had some delays in receipt of those vessels. We hoped to—we were supposed to have received them late last year. Now it looks like we'll be receiving them in the next month or so.

The Under Secretary I know made a trip to this vendor to actually make sure that they were focused. We haven't had this discussion with Admiral Donald, but I know they're doing some work for him as well. So they've got a lot of work on their plate and we're trying to get them—nudge them forward to make sure that they deliver.

But the bottom line is we've had to leave a hole in the top of the facility and kind of do some work-arounds in order for us to be able to lower those vessels—there's 10 of them, 6 in 1 area and 4 in another—in order to lower those down onto the floor and then go ahead and put the ceiling or the roof in place.

So we don't know for a fact what it's going to do to our schedule. We still think that we can bring this home some time around October 2015, which is our baseline. When we get the vessels in, we're going to have to address what it will do to our overall costs.

Senator NELSON. In the 2011 DOE financial report, it lists the cleanup liability for former Cold War production sites at some $250 billion over the next 75 years. Some of these are highly contaminated sites that will require, once cleaned up, even continued monitoring into perpetuity. We're now in a world of flat or declining budgets, and yet your office is driven by legally enforceable milestones with the States where many of these sites, like Hanford, reside in.

How are we going to make it work? How are we going to, over a longer strategy, make the dollars work to do the obligations, to meet the obligations we've undertaken?

Mr. HUIZENGA. I think it's fair to say, Mr. Chairman, that we're going to have to continue to look for efficiencies and technology improvements, to look for basically some game-changers in the way we do business as these budgets flatten out. It's been tough for the last couple years. I know you've had a lot of things to balance up here, and we've indeed had some reductions in our requests, and to that extent we're looking now strategically across the complex at a way that we might rebaseline our efforts over the next few years to accommodate what is likely to be a flatter budget portfolio.

I think again there are some bright spots. When we were down in Savannah River, we were talking to them about the fact that they're developing some new solvents that will help remove radioactivity from one vessel or one solution and bring it into another one to be resolidified in these glass logs. There are ways that you can do this that can actually increase the effectiveness and reduce the time of operations of the facilities by several years and save several billions of dollars. So we're looking for ways to improve the way we're doing business.

Senator NELSON. Obviously, that is going to be required, because—and it's not to say that we can't get smarter as we have more experience moving forward. So hopefully there will be some cost savings achieved with better techniques as we learn more about what we're doing.

Then finally, what's the status of the greater-than-Class C waste environmental impact statement? I understand this type of waste is particularly troublesome and, as difficult as everything else is, this is perhaps even more so.

Mr. HUIZENGA. We issued an environmental impact statement on the greater-than-Class C waste in February 2011, and we conducted a 120-day public comment period. We got over 5,000 comments. We're in the process right now of reviewing those and taking those into consideration. We hope to issue a final environmental impact statement later this year, and we're going to consult with Congress, as is required by the Energy Policy Act of 2005. When we develop our preferred alternatives, we'll be up here talking to you about ways that we hope to move forward.

This is another area of the synergies between the NNSA and the environmental management program, because ultimately when we can develop a preferred place to dispose of these materials you know that the NNSA has been collecting materials that could be used for dirty bombs. Some of those are greater than Class C, sealed sources, and those we'd hope to be able to dispose of permanently and take them out of harm's way.

Senator NELSON. Well, I wish you good luck in doing that. While I don't have a strong portfolio in science, I do have to point out that I was president of the science club in high school.

Mr. HUIZENGA. Well, we might come to you with some questions then, sir. [Laughter.]

Senator NELSON. I knew a few things back then and that's probably where it all stayed.

I want to thank you particularly, Admiral Donald, for your continuing service over the years. Thank you for service to our country. To all of you, thank you for what you're doing for our country in a very vital area. We want to work with you, with budgets. Obviously, we're going to ask serious, deep, probing questions, deep for us at least, to try to understand more about what it is you're doing and also how we can help you do what you need to do to reduce the appropriations risk that you always face. The requirement will be there. You need to have the adequate resources to be able to meet those requirements, and sometimes when they don't quite match we need to work together to find different ways of doing it.

So thank you all. The hearing is adjourned. Thank you.

[Whereupon, at 4:42 p.m., the subcommittee adjourned.]