APRIL 3, 2014

BUDGET HEARING: DEPARTMENT OF ENERGY, NATIONAL NUCLEAR SECURITY ADMINISTRATION NUCLEAR NONPROLIFERATION AND NAVAL REACTORS

U.S. HOUSE OF REPRESENTATIVES, COMMITTEE ON APPROPRIATIONS, SUBCOMMITTEE ON ENERGY AND WATER DEVELOPMENT, AND RELATED AGENCIES

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Chairman Mike Simpson

Subcommittee on Energy and Water Development, and Related Agencies, House Committee on Appropriations

FY 2015 Budget Hearing on Naval Reactors and Defense Nuclear Nonproliferation Programs
April 3, 2014
Opening Statement As Prepared

I'd like to call this hearing to order. This morning, we examined the portion of budget for the National Nuclear Security Administration that carries out the critical programs to sustain our nuclear weapons stockpile. This afternoon, we will focus on the Department's two other important national security programs: nuclear nonproliferation, and naval reactors.

I'd like to welcome back the Honorable Bruce Held, Acting Administrator for the NNSA. Mr. Administrator, the breadth of programs that NNSA oversees is truly impressive and I'd like to thank you for dedicating your entire day to testify before this Subcommittee. I'd also like to welcome both Admiral Richardson and Ms. Anne Harrington. It's good to see you both again, as well, and I look forward to hearing from you on your programs.

Admiral Richardson, this is your second appearance before this Subcommittee. I think I can speak for my colleagues when I say that you have this Subcommittee's full support for your critical work and we greatly appreciate your service. In the past, we've depended on you to make some tough decisions so that we can meet our defense needs under tight fiscal constraints. Even though the Ryan-Murray budget deal provided us with a plan for discretionary spending in fiscal year 2015 and most importantly removed the damaging across-the-board sequestration cuts for the upcoming year, overall defense spending will be essentially flat. That means it is more important than ever to hear from you on your priorities and how we can ensure that the Navy receives the support it needs to continue to operate its nuclear fleet. The fiscal year 2015 budget request for Naval Reactors is $1.377 billion, an increase of $282 million or 26% over last year's enacted level. This afternoon, we will consider some of the details of that request and how those activities are needed even during this period of budget austerity.

The budget request for the NNSA's Defense Nuclear Nonproliferation is $1.555 billion, a decrease of $398 million or 20% from last year's enacted level. Ms. Harrington, you run programs around the world to keep fissile material out of the hands of those who would do us harm. The NNSA's cooperative nuclear security activities in Russia and the former Soviet states have been some of the big successes of the post-Cold War era. Now, many of those programs are ending or ramping down and the nature of our cooperation with Russia has started to change. These changes began even before the recent events in Ukraine and are likely to continue given Russia's belligerent actions. We look forward to hearing from you on how these programs are evolving and how the NNSA's strategies will actively and effectively advance U.S. and global security goals.

Ms. Harrington, we must also hear from you today on the elephant in the room: the project to construct, or not construct, the MOX facility at Savannah River. In the past, the Subcommittee has been highly critical of the NNSA's management of the project. The fiscal year 2015 budget request says that the Department is placing the project in cold standby. I hope we are able to hear more details from you on your plans and rationale for scuttling this project, after fifteen years of design and construction and nearly $6 billion in taxpayer dollars already spent.

Please ensure that the hearing record, responses to the questions for the record, and any supporting information requested by the Subcommittee are delivered in final form to us no later than four weeks from time you receive them. I also ask that if Members have additional questions they would like to submit to the Subcommittee for the record, that they please do so by 5:00 PM tomorrow.

With those opening comments, I would like to yield to our ranking member, Ms. Kaptur, for any opening comments that she would like to make.

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Statement of Bruce Held
Acting Administrator
National Nuclear Security Administration
U.S. Department of Energy
on the
Fiscal Year 2015 President's Budget Request
Before the
Subcommittee on Energy & Water Development
House Committee on Appropriations

April 3, 2014

Chairman Simpson, Ranking Member Kaptur, and Members of the Subcommittee, I come before you today to present the President's FY 2015 Budget Request for the Department of Energy's (DOE) National Nuclear Security Administration (NNSA).

The FY 2015 budget request for the DOE is up 2.6% to $27.9 billion. The NNSA, which comprises over 40% of the DOE's budget, is up $451 million or 4%, to $11.7 billion. In today's fiscal climate, this increase is an indication of the President's unwavering commitment to nuclear security, as outlined nearly four years ago in Prague, and reaffirmed last June in Berlin. Support in this year's budget request is also due to an unprecedented level of transparency and discussion within the interagency on how the NNSA can best support implementation of the two key goals of the Nuclear Posture Review (NPR): to prevent nuclear proliferation and terrorism and to maintain a safe, secure and effective deterrent while we reduce the number of nuclear weapons in the stockpile. This budget request also supports the major initiatives of Naval Reactors, makes investments in physical and cyber security, and funds critical infrastructure recapitalization to support effective operations across the nuclear security enterprise.

Within that context, the Secretary and NNSA Leadership understand that we have an enduring responsibility to steward the taxpayers' dollar effectively and efficiently, and we simply must do better. Therefore, NNSA is looking at ways to improve our governance through a public interest model that will incentivize mission effective and cost efficient solutions to the highest risk nuclear security challenges facing our country. We look forward to seeing the interim recommendations of the Congressional Advisory Panel on the Governance of the NNSA, as well as to reviewing recommendations from other panels focused on governance, including the Secretary of Energy's Advisory Board and the independent commission to study the DOE Laboratories as directed in the FY 2014 Consolidated Appropriations Act.

Another primary area of focus to support effective and efficient implementation of our mission will continue to be project management and improving our cost assessment and estimation capabilities. The Secretary has reorganized the Department to elevate Management and Performance to one of three Under Secretary positions. Within this framework, the NNSA is committed to effectively managing its major projects and has been driving continued

enhancements to contract and project management practices through a reorganized Office of Acquisition and Project Management (APM). In 2013 GAO recognized progress at DOE in execution of nonmajor projects under $750 million, and narrowed the focus of its High Risk List for DOE to mega-scale, unique nuclear construction projects costing more than $750 million. APM is leading the NNSA's effort to deliver results by strengthening rigorous and well-justified alternative assessments and evaluations, providing clear lines of authority and accountability for federal and contractor personnel, and improving cost and schedule performance. NNSA is also applying lessons learned from the Office of Science project management methods and is collaborating across the DOE. At its core, DOE/NNSA's ultimate project management goal is to deliver every project on schedule, within budget, and fully capable of meeting mission performance, safeguards and security, quality assurance, sustainability, and environmental, safety, and health requirements.

The Department has just released its new Strategic Plan for 2014-2018, with the goal to "Secure our Nation" and the strategic objective to "enhance national security by maintaining and modernizing the nuclear stockpile and nuclear security infrastructure, reducing global nuclear threats, providing for nuclear propulsion, improving physical and cyber security, and strengthening key science, technology, and engineering capabilities." The Bipartisan Budget Agreement (BBA) sets firm caps on national security spending in FY 2015, and the President's Budget request adheres to them so tough choices had to be made across the NNSA. While Weapons Activities is up 6.9% from FY 2014 enacted levels, and the DNN account is down 20.4%, the Administration and DOE/NNSA remain firmly committed to our nonproliferation efforts and to implementing a robust program following the end of the four-year effort to secure nuclear material. In addition, modernization of the nuclear security enterprise and sustaining the science and technological base directly supports our nonproliferation and counterterrorism missions, so there is great synergy between the Weapons and Nonproliferation programs that we will continue to leverage. Details of the FY 2015 President's Budget Request for the NNSA follow.

Weapons Activities

The Weapons Activities account request for FY 2015 is $8.3 billion, an increase of $534 million or 6.9% over FY 2014 enacted levels. It is comprised not only of the Defense Programs portfolio, which is responsible for all aspects of stockpile management, but also our physical and cyber security activities, our emergency response and counterterrorism and counterproliferation capabilities, and enterprise-wide infrastructure sustainment. Each element is addressed in detail below.

Defense Programs

The Defense Programs portion of the Weapons Activities account is up $499.5 million, or 7.8% from FY14, to $6.9 billion. It funds the Nuclear Weapons Council (NWC) approved "3+2" strategy with some schedule adjustments, which aims to implement NPR guidance to reduce the number and types of weapons in the stockpile while maintaining a safe, secure and

effective deterrent. The request also continues to invest in the scientific and engineering foundation and in critical infrastructure. Building on last year's jointly conducted planning process for nuclear weapons modernization activities, DOE/NNSA and DoD agreed on a prioritized plan to meet requirements within current fiscal constraints of the Bipartisan Budget Act. Specifically, the FY 2015-19 Budget proposal requests funding for the following modernization activities:

- Complete production of the W76-1 warhead by FY 2019;
- Achieve the B61-12 life extension program (LEP) First Production Unit (FPU) by second quarter FY 2020;
- Achieve the W88 ALT 370 FPU by first quarter FY 2020;
- Defer the interoperable warhead (W78/88-1) LEP FPU by five years to FY 2030;
- Delay the Long-Range Standoff warhead FPU by one to three years to FY 2025-2027;
- Continue funding engineering design and to study alternative approaches to deliver the Uranium Processing Facility by 2025.

The Directed Stockpile Work request at $2.7 billion supports transitioning to a smaller, modernized nuclear stockpile while continuing sustainment efforts. The requested increase reflects the ramp up of Phase 6.3 activities for the B61 LEP and an increase for Stockpile Systems, including maintenance, surveillance, plutonium sustainment, and tritium program requirements.

In support of the Research, Development, Test, and Evaluation (RDT&E) program, the Campaigns request is $1.8 billion to provide increased technical resources needed for the certification of the existing stockpile and qualification of LEP options and components. For example, within the Inertial Confinement Fusion and High Yield Campaign, the National Ignition Facility (NIF) has achieved recent success with a stockpile stewardship experiment that exhibited significant "self heating," which is an important step essential to achieving ignition on the NIF. This platform will be used for years to come in studying a multitude of physical processes of relevance to nuclear weapons. Today, these physics environments are only accessible on laboratory-based high energy density facilities, such as the NIF, since the U.S. has been under a unilateral testing moratorium since 1992. The FY 2015 request for the NIF is $328.5 million.

Another area of significant investment by the DOE is in exascale computing. NNSA's Advanced Simulation and Computing Campaign (ASC) provide leading edge, high-end modeling, and simulation capabilities that capture and allow us to apply all that we know about weapons physics and engineering. The FY 2015 ASC budget request includes $50 million for the Advanced Technology Development and Mitigation sub-program, established in FY 2014, which funds projects that pursue long-term simulation and computing goals relevant to both exascale computing and the broad national security missions of the NNSA. Both the NNSA and DOE's Office of Science continue to collaborate in this area of advanced computing systems, with the Office of Science request providing $91 million towards the development of capable exascale systems.

Two decades after its beginning, the Stockpile Stewardship Program continues to deliver tangible results from the combined use of our leading edge computation and experimental tools. Specifically our level of understanding of how nuclear weapons work is far greater today than when we were testing. A core mission of the DOE remains to certify the safety, security and effectiveness of the nuclear deterrent; this is done each year by the Lab Directors and STRATCOM Commander, which continues to support our unilateral testing moratorium consistent with the Comprehensive Test Ban Treaty.

Infrastructure

The Readiness in Technical Base and Facilities (RTBF) request at $2.1 billion supports the underlying physical infrastructure and operational readiness for the nuclear security enterprise. The request includes funds to upgrade nuclear safety systems, improve the workplace environment for plant and laboratory employees, and reduce safety and mission risks across the enterprise in support of operational readiness. The Site Stewardship request of $82.4 million also ensures the overall health and viability of the enterprise.

Specifically, RTBF construction supports continued design activities for the Uranium Processing Facility Project (UPF) at $335.0 million, an increase of $26 million from FY 2014, while assessing whether there are alternative designs to accomplish the mission incrementally and at an affordable pace. NNSA remains concerned about the cost growth and sequestration impacts facing the UPF Project. In January 2014, NNSA chartered Oak Ridge National Laboratory Director Thom Mason to lead a team to develop and recommend an alternative approach to the UPF Project. NNSA is committed to our build to budget strategy to deliver the UPF Project by 2025, with Building 9212 capabilities, for not more than $4.2-6.5 billion.

The NNSA continues to pursue steps to maintain continuity of plutonium capabilities at Los Alamos National Laboratory (LANL)--to include analytical chemistry (AC) and materials characterization (MC) capabilities--with a commitment to cease programmatic operations in the 62-year old Chemistry and Metallurgy Research (CMR) facility by 2019. NNSA has developed a three-step Plutonium Infrastructure Strategy, to include: 1) Maximizing the use of the Radiological Laboratory Utility Office Building (RLUOB); 2) Reusing laboratory space in Plutonium Facility (PF)-4; and 3) Evaluating options for modular additions to PF-4. The first two steps allow the NNSA to move programmatic operations from the CMR facility; the third addresses the PF-4 lifetime while enabling production capability and analytical support enhancements to meet requirements. NNSA also continues to pursue investments in upgrading safety system in PF-4 as part of the overall approach to maintaining plutonium capability.

NNSA's request reflects the partnership between NNSA and DOD to modernize the nuclear deterrent, and as in last year's Budget, DoD is carrying a separate account for the outyears that contains funds for NNSA's Weapons Activities and Naval Reactors. These funds are transferred to NNSA during budget development and underscore the close link between these activities and DoD nuclear requirements and missions. We urge your subcommittee's support for

alignment of the appropriations process and allocations, including the 302(b) allocation, with the President's Budget. The requested allocation, within the spending caps set by the Bipartisan Budget Act, support these NNSA and DoD priorities. If not achieved, it could place modernization funding and implementation of our long-term stockpile sustainment strategy at risk.

Physical and Cyber Security

Improving the effectiveness and efficiency of Departmental operations is a top priority. Shortly after beginning his tenure, the Secretary of Energy directed the Department to undertake a thorough review of our security management. It became clear that DOE's approach to securing the Department's assets, including the special nuclear materials, could be strengthened by establishing greater accountability and clearer lines of authority.

Therefore, in February, the Secretary announced his new vision for enhancing the Department's health, safety, security and independent assessments. First, we have put in place a Chief Security Officer (CSO) under each of the three Under Secretaries, each empowered and held accountable for managing all security operations within their organizations. The CSOs will form the nucleus of a new DOE Security Committee, chaired by the Associate Deputy Secretary, which will develop unified security strategies across the DOE complex and raise the focus on protecting our people and DOE physical and information assets. Second, we are moving the Department's key support functions for security, health and safety under the leadership of the Under Secretary for Management and Performance in order to improve the effectiveness and efficiency of Departmental operations. Third, we are establishing a new Office of Independent Enterprise Assessments (IEA), reporting directly to the Office of the Secretary. This reorganization will set us on a stronger course to achieving our goals and mission more effectively, efficiently and safely.

In light of these reforms, the primary mission of NNSA's Office of Defense Nuclear Security and the Chief Security Office is to develop and implement sound security programs to protect Special Nuclear Material, people, information, and facilities throughout the nuclear security enterprise. The NNSA's Defense Nuclear Security request is $618 million to provide protection from a full spectrum of threats for NNSA personnel, facilities, nuclear weapons, and information.

The Information Technology and Cybersecurity (renamed from "NNSA CIO Activities") request is substantially increased to $179.6 million to provide protection against increasing cyber security threats. Information Technology and Cybersecurity supports the national nuclear security enterprise by providing information technology and cybersecurity solutions such as enterprise wireless capabilities and continuous monitoring technologies to help meet security and proliferation resistance objectives. The increase reflects expenses for items such as improvement to the cyber infrastructure at the NNSA sites, requirements for classified computing, and Identity Credential and Access Management.

Emergency Response and Counterterrorism

The Nuclear Counterterrorism Incident Response (NCTIR) request of $173.4 million applies technical assets from the nuclear security enterprise to resolve and manage nuclear and radiological incidents, especially those involving terrorism. It addresses this threat by maintaining and using response teams to manage the consequences domestically or internationally should an attack or incident result in radiation exposure to the public. NCTIR conducts training programs to train and equip response organizations and uses strategies that integrate NNSA expertise with law enforcement or military capabilities to locate, identify, and disable a terrorist nuclear device.

The Counterterrorism and Counterproliferation (CTCP) program request is $76.9 million to provide the foundation for the U.S. Government's capability to understand and counter nuclear terrorism and nuclear threat devices. The program also provides a technical understanding of foreign nuclear weapons outside of state control. Based on this expertise, the program informs national policies and international guidelines, as well as enabling domestic and international nuclear counterterrorism engagements.

Defense Nuclear Nonproliferation

The Defense Nuclear Nonproliferation (DNN) request is $1.6 billion, a decrease of $398.8 million, or about 20.4%, from the FY 2014 level. The programs under DNN have been accurately described as “defense by other means.” The majority of the decrease is due to the decision to place the Mixed Oxide (MOX) Fuel Fabrication Facility construction project at the Savannah River Site in cold stand-by to allow further study of more efficient options for plutonium disposition. Other decreases reflect the conclusion of the President’s four year effort to secure nuclear materials worldwide and bring the FY 2015 request in line with funding levels before the acceleration needed to implement the four-year effort.

We have met — and in some cases exceeded — the goals set in April 2009 following the President’s Prague speech by:

- removing or confirming disposition of 5,113 kilograms of highly enriched uranium (HEU) and separated plutonium from 41 countries and Taiwan (enough material for more than 200 nuclear weapons and in excess of the target of 4,353 kilograms);
- completing material protection, control and accounting (MPC&A) upgrades at 32 buildings containing metric tons of weapons-usable material in Russia (for a cumulative total of 218 buildings secured in the former Soviet Union since 1994); and
- working with Russia and former FSU countries to establish effective and sustainable MPC&A capabilities at the national level.

Going forward in FY 2015, the Administration remains firmly committed to disposing of surplus weapon-grade plutonium. Over the past year, we have been working closely with the MOX project contractor and others to determine if there are opportunities to make the current MOX fuel approach for plutonium disposition more efficient. During the same time that we were

analyzing the current MOX fuel approach, we have been analyzing alternatives to accomplish the plutonium disposition mission, including reactor and non-reactor based approaches. DOE expects to complete the options analysis and an external independent review in the next 12-18 months. It is now clear that the MOX approach will be significantly more expensive than anticipated—at a $30 billion lifecycle cost estimate—even with potential contract restructuring and other improvements that have been made to the MOX project. As a result, the MOX project will be placed in cold stand-by, meaning we will cease all construction activities in order to minimize costs. The Fissile Materials Disposition request is $311 million, including $221 million to put the MOX project in cold stand-by, while assessing more cost effective options. NNSA must immediately take prudent actions to commence lay-up to preserve our investment while minimizing costs. The remaining funding will continue to support activities for disposition of plutonium and highly enriched uranium.

While much was accomplished under the four-year effort, serious threats still remain. Significant stockpiles of HEU still exist in too many places, and global inventories of plutonium are steadily rising. DNN programs, working closely with a wide range of international partners, key U.S. federal agencies, U.S. national laboratories, and the private sector will continue to remove and/or dispose of the dangerous nuclear materials that are still very much a part of our world today. The FY 2015 budget request for other DNN programs provides funding to continue remaining high-priority nuclear and radiological threat reduction efforts, following completion of the accelerated four-year effort activities. This includes $333 million for the Global Threat Reduction Initiative (GTRI) and $305 million for the International Material Protection and Control (IMPC) program. FY 2015 priority efforts include the removal of an additional 125 kilograms of HEU and plutonium from high priority countries; the protection of an additional 105 buildings with high-activity radioactive sources; the consolidation of all category I/II material into a new high security zone at a nuclear material site in Russia; preventing illicit trafficking by closing key gaps in the radiation detection architecture through the provision of fixed and mobile detection equipment; and the initiation of new nuclear security activities in the Middle East.

Another core program is DNN Research & Development (R&D) program, at $361 million in the FY 2015 budget request. DNN R&D develops new technologies and methods that advance national and international capabilities to detect and characterize foreign nuclear weapons production activities and detonation events and the movement of special nuclear material (SNM). DNN R&D is a national-level program providing applied research and development in nuclear security and treaty verification technology leveraged by interagency partners at the Departments of Homeland Security, Defense and State, and the throughout broader U.S. Government.

Finally, the Nonproliferation and International Security (NIS) program request is $141 million, which supports activities that prevent and counter WMD proliferation, including continued support of U.S. efforts to address proliferation by Iran, North Korea, and proliferation networks; implementation of statutory export control requirements; support for treaty verification and transparency; implementation of the Next Generation Safeguards Initiative to strengthen

International Atomic Energy Agency safeguards; and efforts to reduce proliferation risks associated with the expansion of nuclear power.

These activities are carried out in support of an interagency strategy for nuclear threat reduction and in close coordination with related programs in the Department of Defense, Department of State, and other agencies. Though difficult choices are inevitable in the current budget environment, NNSA continues to strongly support the nuclear nonproliferation mission. We are proud that the Office of Defense Nuclear Nonproliferation is responsible for delivering the majority of the pledges made by the United States under the Nuclear Security Summit process. The President and Energy Secretary recently represented the United States at the third such Summit in The Hague, where they highlighted additional commitments the United States intends to meet by the 2016 Summit, which will be hosted in the United States, and continued to encourage international commitment to and investment in meeting these critical nonproliferation challenges.

Naval Reactors

The budget request for Naval Reactors is $1.4 billion, an increase of $282.1 million, about 25.8% from the FY14 level. The request includes the base funding required to safely maintain, operate and oversee the Navy's 83 nuclear-powered warships. The Naval Reactors budget request includes three high priority programs: OHIO-class Replacement submarine; refueling of the Land-Based Prototype reactor plant; and the Spent Fuel Handling Recapitalization Project. These new projects are essential to maintaining a credible sea-based strategic deterrent, to maintain the research and training capabilities of the Land-based Prototype, and to maintain the capability to safely inspect, store and package naval spent nuclear fuel.

NNSA Program Direction—Federal Salaries and Expenses

NNSA Federal Salaries and Expenses (FSE), formerly "Office of the Administrator," request is $411 million, an increase of $34 million or 9% from the FY 2014 level. The increase reflects two requirements: a $20 million one-time cost to fund the move of the NNSA Albuquerque Complex to a different leased facility, and a $12 million increase associated with the transfer of Corporate Project Management from the Weapons Activities account, consistent with Congressional direction in the FY 2014 Consolidated Appropriations Act. The FY 2015 Budget Request provides support for 1,710 Federal FTEs – a 9.3 percent reduction relative to FY 2012 enacted levels – in response to today' constrained budget environment. FSE remains critical to supporting the NNSA mission and workforce.

Separately in the FY 2015 budget request, the Administration has proposed an additional $56 billion in funding across the Government through the Opportunity, Growth and Security Initiative (OGSI). The OGSI supports the President's broad vision for investing in growth, opportunity, and national security and advancing important Presidential goals while respecting the budgetary consensus developed under the Bipartisan Budget Agreement of December

2013. The OGSI allocates around $600 million to further support NNSA's critical mission and infrastructure investments.

Conclusion

The NNSA implements a vital mission, responsible for nuclear security at home and abroad, and delivering the technology, capabilities and infrastructure essential to a 21st century organization. An emphasis on mission effective and cost efficient nuclear security solutions will be critical for the NNSA to succeed in today's fiscal climate where difficult choices must be made but where our workforce continues to rise to the challenge and deliver.

Statement of Admiral John Richardson
Deputy Administrator for Naval Reactors
National Nuclear Security Administration
U.S. Department of Energy
on the
Fiscal Year 2015 President's Budget Request
Before the
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Naval Reactors' request for FY15 is $1.377 billion, an increase of $282 million (26 percent) over the FY14 enacted funding level. The requested funding permits Naval Reactors to support the design, construction, operation, maintenance and disposal of the U.S. Navy's nuclear-powered fleet. This Fleet includes 55 attack submarines, 14 ballistic missile submarines, 4 guided missile submarines, and 10 aircraft carriers, or over 40 percent of the U.S. Navy's major combatants. The program also operates two nuclear powered land-based prototypes to conduct research and development, and when coupled with two Moored Training Ships, train over 3000 Sailors per year for entry into the nuclear fleet. Over 15,000 nuclear-trained Navy sailors safely maintain and operate the propulsion plants in nuclear powered warships, which operate in support of U.S. national interests.

The FY15 budget request supports three national priority projects and the technical support base. The projects are:

- Designing a new reactor plant for the OHIO-class SSBN Replacement
- Refueling the Research and Training Reactor in New York
- Recapitalizing the spent fuel handling infrastructure in Idaho

Naval Reactors has requested an increase in funding in FY15 to support these projects, and to fund necessary maintenance, equipment, construction, and reactor technology development in the technical support base that have been delayed or deferred due to appropriation shortfalls over the last five years.

Supporting the nuclear-powered fleet to safely and reliably protect our national interests while forward deployed requires that Naval Reactors maintain a substantial technical base - laboratories, training reactors and spent fuel handling capability – to anticipate and immediately respond to fleet problems before they become operationally limiting. This technical base thoroughly and quickly evaluates all fleet technical issues that arise while also supporting design, manufacture, operation, maintenance, and development of improved technologies. Ultimately, this technical base and laboratory infrastructure ensures the safety of the crew and the public without impacting the mission of our nuclear-powered fleet. Uncompromising and timely support for safe nuclear fleet operation continues to be the highest priority for Naval Reactors.

Over the last 5 years, Naval Reactors' appropriation has been below requirements by over $450M. For example, in FY14, Naval Reactors was funded $151M below the request. As a result, Naval Reactors will be required to shut down one of the two prototype reactor plants in upstate New York during the second quarter of FY15 due to insufficient maintenance funding. This shutdown results in 450 sailors that will not be trained and will not be sent to the Fleet next year. This directly translates to more work at sea and in port for our nuclear-trained sailors further stressing them and their families. This reactor will remain shut down until this maintenance can be performed. The funding shortage has also made impossible the purchase of vital capital equipment and postponed infrastructure improvements, most notably defunding High Performance Computing capacity that is needed to deliver the OHIO-class Replacement reactor design on time and to support the existing fleet. Cancelling this computer purchase in FY14 has resulted in at least a 6-month delay to reactor core manufacturing, impacting the OHIO-class replacement lead-ship construction schedule.

Another portion of the requested increase in funding is required to support an increased level of effort for designing a new reactor plant for the OHIO-class SSBN Replacement. Activity this year includes reactor plant design and component development to support procurement of long lead components starting in FY19. Progress in these areas in FY15 will ensure the cost of those components is controlled as the program moves forward to construction beginning in FY21.

Related to OHIO-class Replacement, the FY15 request continues to progress the Land-based Prototype Refueling Overhaul in upstate New York. In FY14 and FY15, Naval Reactors continues the core manufacturing development work needed for the Refueling Overhaul which also enables timely construction of the life-of-ship core for OHIO-class Replacement and reduces cost and schedule risk. Further plant service life engineering design will be completed in FY15 to ensure that the Land-based Prototype plant overhaul, performed concurrently with refueling (that starts in FY18), supports 20 additional years of research, development and training in upstate New York.

In addition to underfunding operations and infrastructure activities described above, the FY14 appropriation again provided no funds to initiate preliminary design for the Spent Fuel Handling Recapitalization Project (SFHP). This project, already delayed by two years, is needed to replace the aging facility in Idaho that processes our spent naval nuclear fuel from aircraft carriers and submarines. This processing includes receipt, preparation, temporary storage, and packaging of naval spent nuclear fuel for dry storage and disposal. The new SFHP is urgently required for three primary reasons:

1. The existing Expended Core Facility (ECF) is more than 55 years old and the water pool that stores naval spent nuclear fuel is the oldest pool of its type in the nation. This old facility is showing accelerating signs of deterioration, including leaking water pool walls and cracked floors. While the ECF continues to be maintained and operated in a safe and environmentally responsible manner, repair and refurbishment actions required to sustain operations in the ECF are costly and becoming more expensive each year. The risk associated with the degrading condition of the ECF is exacerbated, not only by the delay in bringing on the new SFHP facility, but also because the FY14 shortfall in operations and infrastructure reduced funding for maintenance on the existing ECF. Any disruption

to operations in processing naval spent nuclear fuel at the ECF would require costly and time-consuming emergent measures, and would directly impact Naval Reactors' ability to support the Navy's nuclear-powered fleet refueling and defueling schedules.

2. The new SFHP facility is required to receive, prepare, temporarily store, and package full-length aircraft carrier spent nuclear fuel. The current ECF facility cannot handle this fuel. In order to prevent impact to the operating fleet due to the delay in bringing SFHP on line, the Navy must procure extra, otherwise unnecessary, M-290 shipping containers that will be used to temporarily store naval spent nuclear fuel, to return aircraft carriers to sea until the new SFHP can be built. In addition to inherent cost increases associated with delaying the SFHP by two years these extra containers will cost $200M.
3. The SFHP is required to ensure Naval Reactors meets its commitments to the State of Idaho for processing spent naval nuclear fuel. Without this new facility, Naval Reactors' ability to process fuel in the timeframe directed by agreements with the State will be jeopardized.

The FY15 request for the SFHP – $145M – is essential to the operational availability of aircraft carriers and submarines. Without new start authority and funding in FY15, the project will be further delayed, requiring extended operation of an aging facility and incurring additional unnecessary shipping container costs of approximately $100M – $150M for each year of delay.

At the requested funding level, Naval Reactors can safely maintain and oversee the nuclear-powered fleet. Naval Reactors can also continue to progress the OHIO-class Replacement and Land-based Prototype Refueling Overhaul, renew progress on the Spent Fuel Handling Recapitalization Project, and maintain its environmental responsibilities.

Naval Reactors has a history of fiscal responsibility in its day-to-day operations, and continues to look for cost saving initiatives to further drive financial efficiencies at its laboratories. For example, Naval Reactors consolidated its laboratory and procurement prime contractors into single contracts, resulting in savings of $24M per year. Naval Reactors developed a more efficient assembly process for the USS GERALD R FORD reactor core, saving $50M in ship construction. Careful maintenance of refueling equipment has enabled Naval Reactors to save $19M in repurchases that would have been required for the upcoming prototype refueling. Aggressive management has enabled Naval Reactors to save $6M over the life of a Major Construction Project in Idaho, and we look forward to similar successes in other construction projects. Finally, the new life-of-ship core that will fuel the OHIO-class Replacement will enable the Navy to save an estimated $40B over the life of that class of ships. The continued cost performance and cost reduction is greatly enhanced by stability and sustained commitment to these long-term, multi-year efforts. The uncertainty and instability of the past years has resulted in significant disruption, distraction, and increased costs. Full funding in FY15 would send a strong signal about the commitment to the critical work Naval Reactors is planning to perform.

With the help of Congress, Naval Reactors is committed to executing our projects on time and on budget, and to continue to search for the safest and most cost effective way to support the nuclear fleet.