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
Subcommittee on Energy and Water Development
House Committee on Appropriations

April 3, 2014

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.