Statement of Admiral Kirkland Donald
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National Nuclear Security Administration
U.S. Department of Energy
on the
Fiscal Year 2013 President's Budget Request
Before the
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Subcommittee on Energy and Water Development
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The request for this appropriation is $1.089 billion; an increase of almost one percent over the FY 2012 appropriation. The program directly supports all aspects of the U.S. Navy's nuclear fleet, which encompasses the Navy's submarines and aircraft carriers, over 40 percent of the U.S. Navy's major combatants. Currently, the nuclear fleet is comprised of 54 attack submarines, 14 ballistic missile submarines, 4 guided missile submarines, and 11 aircraft carriers. Over 8300 nuclear-trained Navy personnel safely operate the propulsion plants on these ships all over the world, and their consistent forward presence protects our national interests. At any given time, about half of these ships are at sea.

2011 was a successful year for Naval Reactors. The nuclear-powered fleet surpassed 148 million cumulative miles safely steamed, providing the Navy with a consistent forward presence, capable of rapid response to emerging world events. The endurance, forward-presence, and instant readiness enabled by nuclear propulsion plants were on full display during Operation Odyssey Dawn, with deployed submarines launching over half of the initial salvo of cruise missiles, just one of this year's 57 submarine missions of significance to national security. Naval Reactors has also surpassed important milestones in the OHIO Replacement reactor design, including sufficient completion of design and manufacturing development of core materials to support the 2012 core materials decision. In Idaho, the Program loaded its 50th spent fuel dry storage canister, with a third of the Navy's current spent fuel inventory now ready for shipment to a permanent repository. Finally, as highlighted by the commissioning of the USS CALIFORNIA (SSN 781) and the christening of the PCU MISSISSIPPI (SSN 782), VIRGINIA-Class submarines are consistently delivered under-budget and ahead of schedule. Throughout all these significant efforts, Naval Reactors also contributed to the relief in response to the tragic earthquake, tsunami and resultant events at the Fukushima Dai-ichi nuclear power plant in Japan.

Continued safe and reliable Naval nuclear propulsion requires that Naval Reactors maintains the capability to anticipate and respond to small problems before they become larger. The technical base and laboratory infrastructure allows thorough and quick evaluation of technical issues that arise from design, manufacture, operation and maintenance with technically-sound dispositions, ensuring crew and public safety without unnecessarily restricting the important missions of our nuclear powered-ships. Through careful collection and meticulous technical analysis of fleet operational and inspection data, and rigorously engineered designs, as well as prudent maintenance and modernization, the Program maintains a record of over 60 years of safe and

effective operations. Uncompromising and timely support of the nuclear fleet continues to be the highest priority for Naval Reactors. This focus will prove even more important as the nuclear fleet, whose oldest ship, USS ENTERPRISE (CVN 65), recently celebrated her 50th birthday, continues to increase its average age. Day-to-day activities include oversight and operation of two laboratories across multiple sites, including a prototype site with two operating reactor plants, and a spent nuclear fuel processing and handling facility. This budget funds all required facilities, maintenance, capital equipment, compliance, and remediation for these facilities. The work at these facilities enables complete lifecycle support for every nuclear-powered warship, from construction through inactivation. Technical work is conducted in areas such as structural mechanics, electrical engineering, nuclear engineering, materials science, reactor servicing, chemistry, and spent fuel management.

In addition to fleet support, Naval Reactors has embarked on important new projects: namely, the refueling overhaul for the S8G Land-Based Prototype reactor, the design of the OHIO Replacement reactor plant, and recapitalization of our naval spent nuclear fuel infrastructure. Each of the projects is critical to fulfillment of the Navy's longer term needs.

The Budget Control Act of 2011 established discretionary caps, which are delaying several of the Administration's nuclear modernization initiatives. Of the three new projects, only the S8G Land-Based Prototype Refueling Overhaul remains on the originally envisioned schedule that was presented to Congress last year. The Prototype reactor plant has served Naval Reactors' needs for research, development, and training since 1978, and the reactor provides a cost-effective testing platform for new technologies and components before they are introduced to the Fleet. Equally important, it provides an essential, hands-on training platform for the fleet's reactor plant operators, every one of whom qualifies on an operating reactor before their assignment to a submarine or aircraft carrier. To continue vital research capabilities, as well as train sufficient operators to man the Fleet, the S8G Land-Based Prototype Refueling Overhaul must begin in 2018. This budget fully funds the FY13 effort required for the upcoming refueling overhaul of the S8G Land-Based Prototype. The new prototype reactor core work will be used to test the manufacturability of new core materials required for the OHIO Replacement submarine.

The OHIO Replacement reactor plant design continues and the FY13 requested amount supports continuing this work to meet the Navy's revised schedule and procurement of reactor plant components in 2019 (to support a 2021 lead-ship procurement). This represents a two-year delay compared to the schedule presented to Congress last year, which the Navy considers the best balance between BCA constraints and operational risk. The current OHIO-Class ballistic missile submarines are reaching the end of their operational life and will begin to retire in 2027. Naval Reactors is designing and developing a life-of-ship core to ensure continuous and credible strategic deterrence, as well as enable substantial cost savings. The planned life-of-ship core will have a longer reactor life than any previous core, and will eliminate the need for a mid-life refueling, enabling the Navy to reduce maintenance requirements by shortening the mid-life overhaul. This increased SSBN operational availability will reduce strategic deterrence submarine procurements by two. Full funding for this program is crucial to support designing, building, and testing of systems for a new design of a nuclear reactor plant on the identified schedule. Completion of this work drives the overall design maturity of the reactor plant, which,

as demonstrated by the successful construction of VIRGINIA-Class submarines, is vital to minimizing risk and cost during component procurement and ship construction. The request is sufficient for OHIO Replacement development through FY13 and we are working with DOD to address the out-years.

Finally, the Spent Fuel Handling Recapitalization Project is needed to maintain the capability to manage naval spent nuclear fuel in a cost-effective way that does not impede the refueling of active ships and their return to operations. This project includes receipt, inspection, processing, packaging, and secure dry storage. The existing facility is more than 50 years old, and was never designed for its current primary mission of packaging naval spent nuclear fuel for permanent dry storage. Although the current Expended Core Facility continues to be maintained and operated in a safe and environmentally responsible manner, it no longer efficiently supports the nuclear Fleet. Uninterrupted receipt of naval spent nuclear fuel is vital to the timely refueling and return of warships to full operational status. Due to the fiscal constraints of the Budget Control Act, Naval Reactors is reviewing the schedule for the SFHP and developing a revised profile. Delays past 2020 will require the procurement of additional M-290 shipping containers to store CVN fuel until it can be unloaded at a new facility. These additional containers will be procured using Department of the Navy funds at an estimated cost of $200 million.