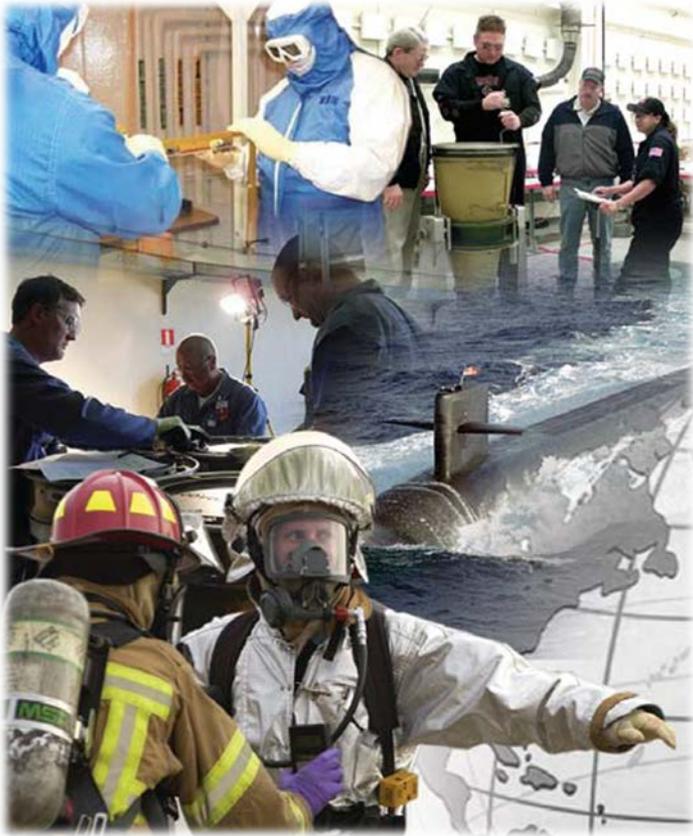




National Nuclear Security Administration



FY 2016-2020 Congressional Budget Request

February 3, 2015



Message from the Administrator



"NNSA's vision is "Mission First; People Always." Our missions are essential and enduring; and, they are accomplished through the hard work and innovative spirit of a highly capable workforce committed to service in the public interest. The FY 2016 President's Budget reflects strong and abiding Administration support for maintaining a safe, secure, and effective nuclear deterrent; preventing, countering and responding to evolving and emerging threats of nuclear proliferation and terrorism; supporting the capability of our nuclear Navy to protect American and Allied interests around the world; and, modernizing our scientific, technical and engineering infrastructure to meet future needs. In all that we do, we are mindful of our obligation to continually improve our business practices and be responsible stewards of the resources that Congress and the American people have entrusted to us."

Frank G. Klotz
Administrator

"Mission First; People Always"





Department of Energy (DOE) Mission and Goals



Enhance U.S. security and economic growth through transformative science, technology innovation, and market solutions to meet our energy, nuclear security, and environmental challenges.

DOE Goals

Science and Energy

Goal 1: Advance foundational science, innovate energy technologies, and inform data driven policies that enhance U.S. economic growth and job creation, energy security, and environmental quality, with emphasis on implementation of the President's Climate Action Plan to mitigate the risks of and enhance resilience against climate change.

Secure Our Nation

Goal 2: *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 cybersecurity, and strengthening key science, technology, and engineering capabilities.*

Management and Performance

Goal 3: Position the Department of Energy to meet the challenges of the 21st century and the nation's Manhattan Project and Cold War legacy responsibilities by employing effective management and refining operational and support capabilities to pursue departmental missions.



NNSA Key Strategic Objectives



- **Maintain the safety, security and effectiveness of the Nation's nuclear deterrent without nuclear testing** by conducting science-based stockpile stewardship and completing life extension programs.
- **Reduce global nuclear threats** by securing the most vulnerable nuclear materials worldwide, preventing illicit trafficking, developing counterterrorism capabilities, and maintaining emergency response.
- **Provide safe and effective nuclear propulsion** by supporting the fleet, developing the reactor for the Ohio-class submarine replacement, refueling the land-based prototype, and ensuring the capability to handle spent fuel.
- **Strengthen key science, technology, and engineering capabilities.**
- **Modernize the Nations nuclear security infrastructure** to meet mission requirements now and for the long-term.
- **Drive an integrated and effective enterprise** through improved governance and business models, as well as the recruitment and retention of highly skilled professionals.



NNSA Budget Summary

(\$ in thousands)



| | FY 2014 Current | FY 2015 Enacted | FY 2016 Request | \$ Change vs FY 2015 | % Change vs FY 2015 |
|---|--------------------|--------------------|--------------------|----------------------------|---------------------------|
| Weapons Activities | 7,854,197 | 8,231,770 | 8,846,948 | 615,178 | 7.5% |
| Defense Nuclear Nonproliferation | 1,941,983 | 1,641,369 | 1,940,302 | 298,933 | 18.2% |
| Naval Reactors | 1,101,500 | 1,238,500 | 1,375,496 | 136,996 | 11.1% |
| NNSA Federal Salaries & Expenses | 370,500 | 370,000 | 402,654 | 32,654 | 8.8% |
| Total, NNSA Program | 11,268,180* | 11,481,639* | 12,565,400 | 1,083,761 | 9.4% |
| Rescission of Prior Year Balances* | -64,000 | -82,605 | 0 | 82,605 | -100% |
| Total NNSA, Net of Rescissions | 11,204,180 | 11,399,034 | 12,565,400 | 1,166,366 | +10.2 % |

* The FY 2014 appropriation included a one-time rescission of prior year balances of \$64,000,000 for Weapons Activities. The Consolidated and Further Continuing Appropriations Act, 2015, includes one-time rescissions of prior year balances as follows: \$413,000 for Federal Salaries and Expenses, \$51,411,000 for Weapons Activities, \$26,121,000 for Defense Nuclear Nonproliferation, and \$4,660,000 for Naval Reactors.



NNSA Future-Years Nuclear Security Program (FYNSP)



(\$ in thousands)

| | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 |
|-------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Weapons Activities | 8,846,948 | 9,282,292 | 9,484,527 | 9,717,748 | 9,829,656 |
| Defense Nuclear Nonproliferation | 1,940,302 | 1,943,195 | 1,975,316 | 1,982,605 | 2,021,701 |
| Naval Reactors | 1,375,496 | 1,435,120 | 1,467,751 | 1,778,387 | 1,778,317 |
| NNSA Federal Salaries & Expenses | 402,654 | 410,393 | 418,406 | 428,260 | 437,326 |
| Total* | 12,565,400 | 13,071,000 | 13,346,000 | 13,907,000 | 14,067,000 |

*The annual totals include an allocation to NNSA from the Department of Defense's five year budget plan. The amounts included are \$1.60 billion in FY 2017, \$1.66 billion in FY 2018, \$1.70 billion in FY 2019, and \$1.73 billion in FY 2020.



Nuclear Security: Effective Stewardship of The Nuclear Deterrent



Accomplishments, examples

- ✓ Maintained a safe, secure, and effective nuclear weapons stockpile without testing (for over 20 years)
- ✓ Passed halfway mark in Life Extension Program (LEP) for the W76-1 warheads for Navy
- ✓ Conducted successful first integration testing of B61-12 LEP for Air Force
- ✓ Selected W80 as warhead for Air Force's Long Range Stand-Off system (LRSO)
- ✓ Completed the new Kansas City Responsive Infrastructure Manufacturing and Sourcing (KCRIMS) facility
- ✓ Significantly increased quarterly shot rate at the National Ignition (NIF) and achieved experimental results in closer alignment with modeling predictions

FY 2016 Highlights

- Complete production of W76-1 LEP warhead by FY 2019 (\$244M)
- Deliver B61-12 LEP First Production Unit (FPU) by FY 2020 (\$643M)
- Deliver W88 ALT 370 FPU (w/ conventional high explosive refresh) by FY 2020 (\$220M)
- Accelerate W80-4 LEP FPU by two years to 2025 (\$195M)
- Implement a disciplined, "modular" approach for constructing Uranium Processing Facility (UPF) at Y-12 (\$430M) and the Chemistry and Metallurgical Research Replacement Facility (CMRR) at Los Alamos (\$156M)



Nuclear Security: Effective Stewardship of The Nuclear Deterrent (continued)



- Stays on track to meet the NNSA goal of dismantling by FY 2022 all weapons retired from the stockpile prior to FY 2009
- Supports collaboration with DOE Office of Science on critical technologies leading ultimately to exascale computing capabilities for national security and other uses
- Sustains physical security and cybersecurity to support effective operations



Nuclear Security: Controlling and Eliminating Nuclear Materials Worldwide



Accomplishments, examples

- ✓ Completed removal or disposal of a total of 190 kilograms of vulnerable nuclear material
- ✓ Helped prevent illicit trafficking of nuclear and radiological materials, technology and expertise by installing 37 fixed and 22 mobile radiation detection systems worldwide
- ✓ Obtained pledge from Japan at the 2014 Nuclear Security Summit in The Hague to remove and dispose of all highly-enriched uranium and separated plutonium from the Fast Critical Assembly in Japan

FY 2016 Highlights

- Increase overall funding for nonproliferation (\$1.9B)
- Enhance NNSA structure by reorganizing program into four business lines: Global Material Security (\$427M); Materials Management and Minimization (\$312M); Nonproliferation and Arms Control (\$137M); and Nonproliferation Research and Development (\$419M)
- Strengthen Counterterrorism and Emergency Response by consolidating these efforts with Nuclear Nonproliferation programs in one account
- Continue mixed-oxide (MOX) project at the FY 2015 appropriation funding level while completing Congressionally-directed studies on plutonium disposition (\$345M)



Nuclear Security: Advancing Navy Nuclear Propulsion



Accomplishments, examples

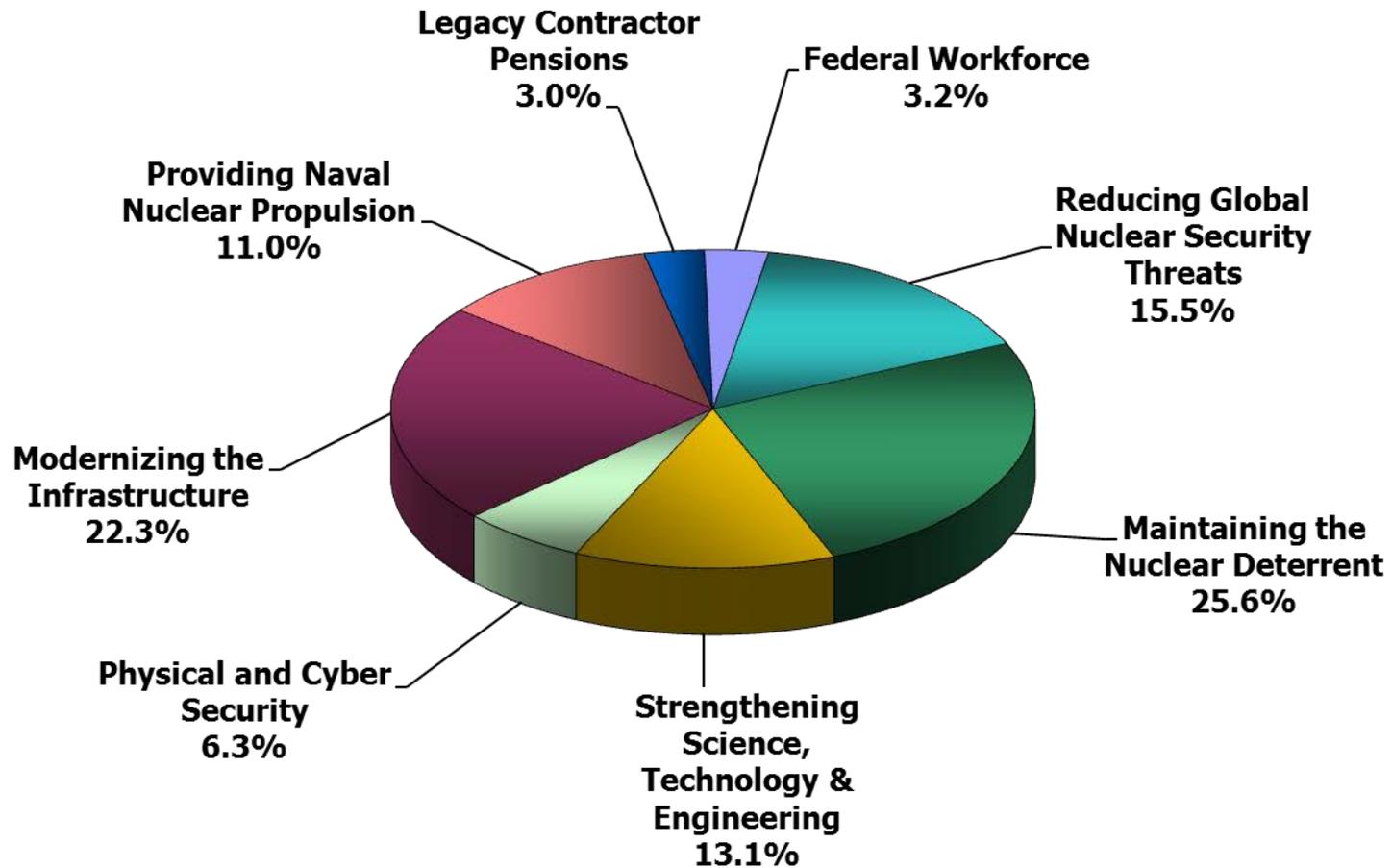
- ✓ Provided technical resolution support while nuclear fleet steamed over 2 million miles
- ✓ Advanced the Ohio-Class Replacement and the S8G Prototype Refueling projects
- ✓ Delivered the first unit of the next-generation A1B aircraft carrier reactor plant for initial testing

FY 2016 Highlights

- Continue development of the Ohio-class Replacement Reactor (\$187M)
- Initiate Refueling of the Land-Based Prototype reactor (\$133M)
- Continue construction of a new Spent Fuel Handling Recapitalization Project (\$86M)

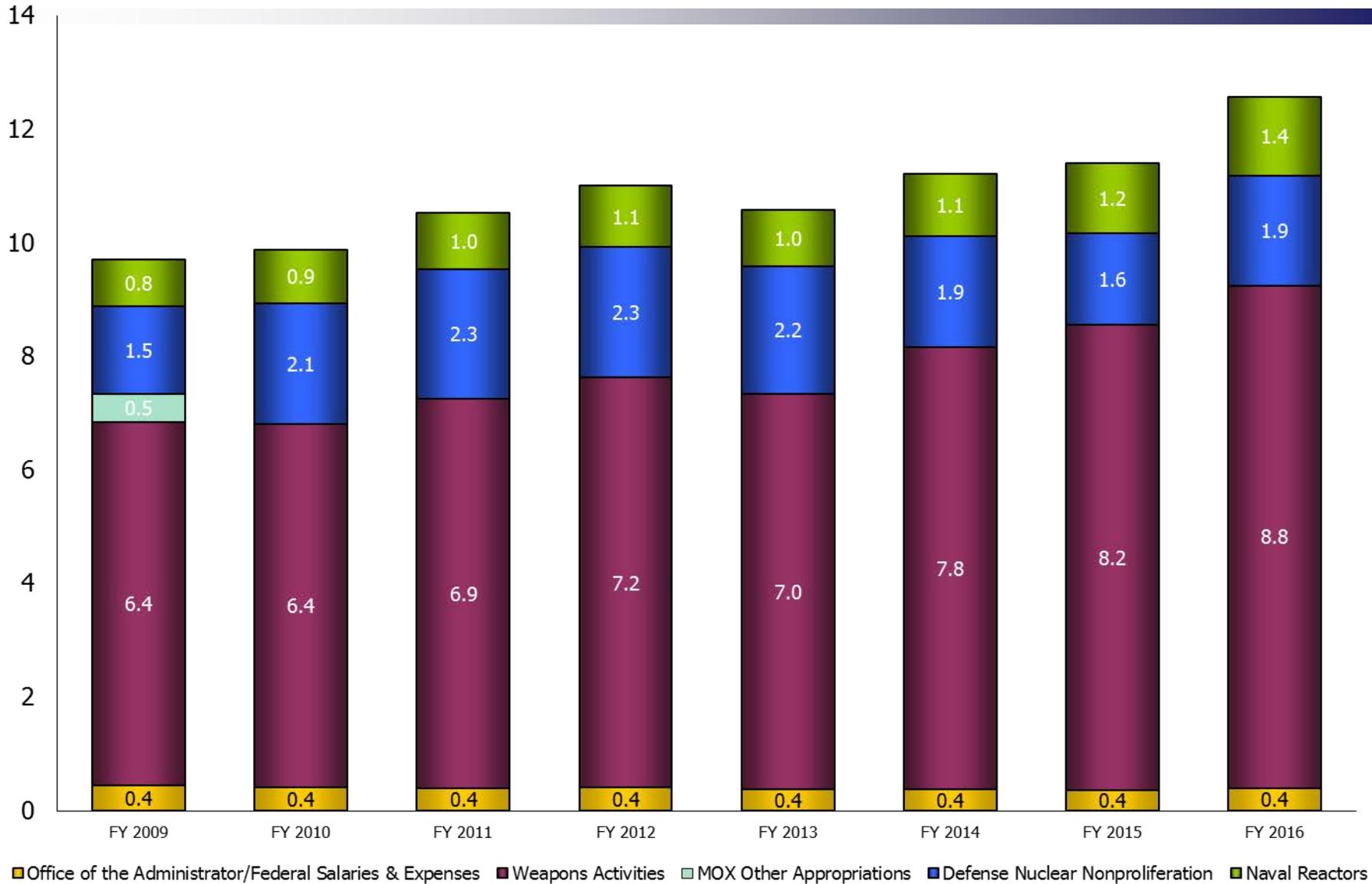


FY 2016 Budget Request = \$12.6B





NNSA Funding FY 2009 – FY 2016





NNSA Site Funding Estimates FY 2016 Congressional Budget

(\$ in Millions)



| Site | FY 2014 Current | FY 2015 Enacted | FY 2016 Request | \$ Change vs FY 2015 | % Change vs FY 2015 |
|---|--------------------|--------------------|--------------------|-------------------------|------------------------|
| Kansas City | 540.7 | 583.9 | 631.5 | +47.6 | +8.1% |
| Kansas City Plant | 533.9 | 576.8 | 624.3 | +47.5 | +8.2% |
| Kansas City Field Office | 6.8 | 7.1 | 7.2 | +0.1 | +0.7% |
| Livermore | 1,088.6 | 1,080.6 | 1,125.0 | +44.4 | +4.1% |
| Lawrence Livermore National Laboratory | 1,071.7 | 1,063.7 | 1,107.9 | +44.2 | +4.2% |
| Livermore Field Office | 16.9 | 16.9 | 17.1 | +0.2 | +0.9% |
| Los Alamos | 1,708.7 | 1,597.6 | 1,660.3 | +62.9 | +3.9% |
| Los Alamos National Laboratory | 1,693.6 | 1,582.3 | 1,644.1 | +61.9 | +3.9% |
| Los Alamos Field Office | 15.1 | 15.3 | 16.2 | +1.0 | +6.4% |
| NNSA Production Office | 1,813.4 | 1,753.1 | 2,046.7 | +293.6 | +16.7% |
| NNSA Production Office (M&O Contractor) | 0.0 | 1,726.8 | 2,021.7 | +294.9 | +17.1% |
| NNSA Production Office (Field Office) | 26.9 | 26.3 | 25.0 | -1.3 | -4.9% |
| Pantex Plant | 599.1 | 0.0 | 0.0 | 0.0 | - |
| Y-12 National Security Complex | 1,187.4 | 0.0 | 0.0 | 0.0 | - |
| Nevada | 453.8 | 374.0 | 400.6 | +26.7 | +7.1% |
| Nevada National Security Site | 361.8 | 288.4 | 309.9 | +21.5 | +7.5% |
| Nevada Field Office | 92.0 | 85.6 | 90.7 | +5.2 | +6.0% |
| Sandia | 1,648.2 | 1,663.7 | 1,646.0 | -17.5 | -1.1% |
| Sandia National Laboratories | 1,627.4 | 1,642.0 | 1,630.0 | -11.9 | -0.7% |
| Sandia Field Office | 20.8 | 21.7 | 16.0 | -5.6 | -26.1% |
| Savannah River | 766.2 | 645.9 | 705.7 | +59.9 | +9.3% |
| Savannah River Operations Office | 440.0 | 336.2 | 349.0 | +12.8 | +3.8% |
| Savannah River Site | 320.6 | 303.2 | 351.7 | +48.6 | +16.0% |
| Savannah River Site Office | 5.6 | 6.5 | 5.0 | -1.5 | -22.9% |

FOR MORE INFORMATION:

<http://nnsa.energy.gov/mediaroom/pressreleases/fy-2016-budget>

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