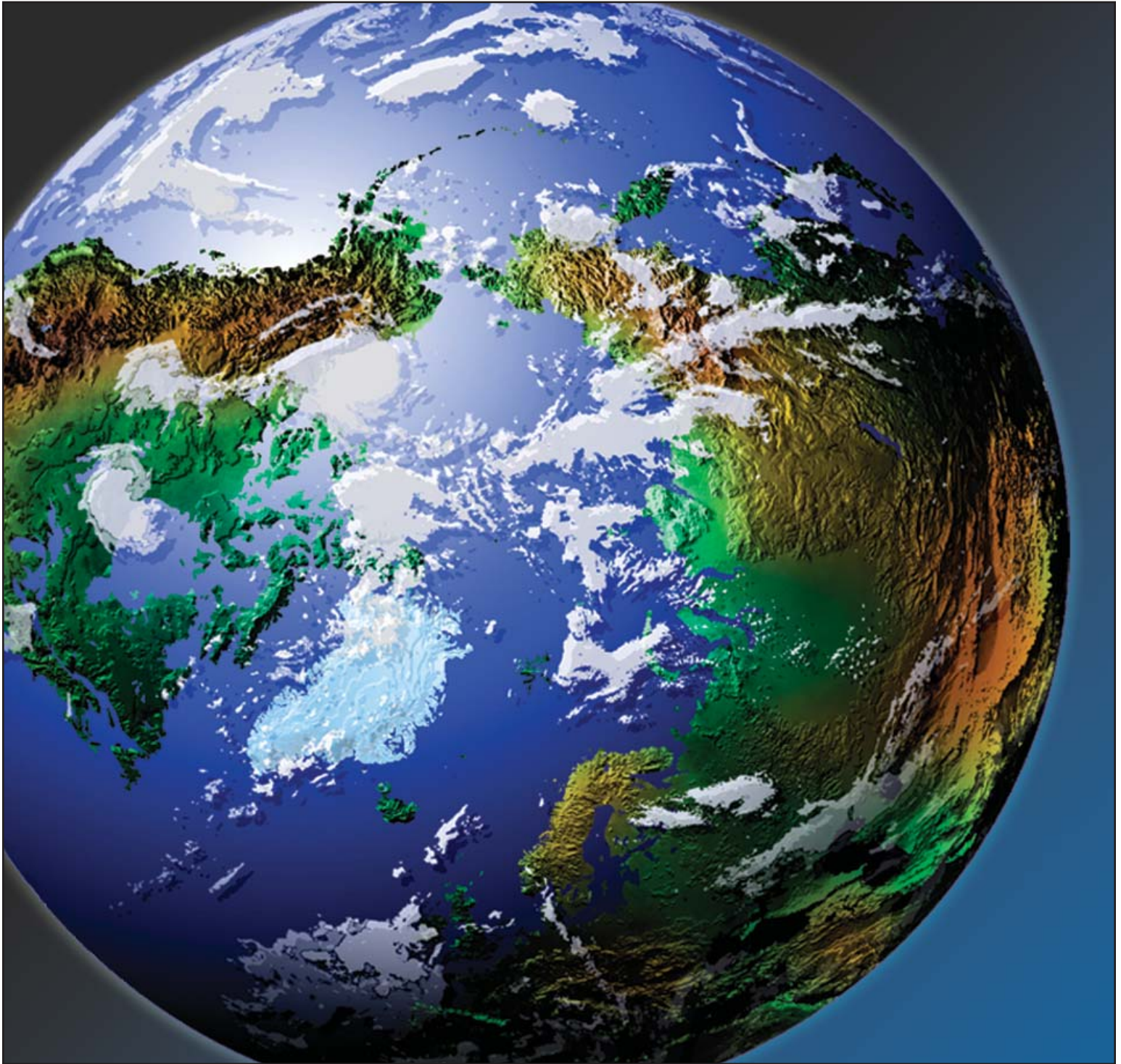




National Nuclear Security Administration
Office of Defense Nuclear
Nonproliferation



*Detect, Secure, and Dispose of
Dangerous Nuclear Material*

Securing Civilian Nuclear and Radiological Materials Worldwide

- Converted 57 reactors in 32 countries from high-enriched uranium (HEU) to low-enriched uranium (LEU) (an additional 5 shutdown).
- Returned over 765 kg of Russian-origin HEU; over 1,196 kg of U.S. HEU; and over 145 kg of other HEU material.
- Secured more than 540 buildings overseas with high priority nuclear and radiological materials; recovered over 18,700 radiological sources domestically.

Securing Russian Nuclear Weapons Material

- Completed MPC&A upgrades at 87% of Russian nuclear material and warhead sites of concern; Bratislava work to be completed by the end of 2008.
- U.S.-Russian plan identifies the requirements for Rosatom to sustain security upgrades.

Detecting and Deterring Illicit International Nuclear Transfers

- Equipped 160 Russian border crossings with radiation detection equipment with Russia equipping an approximately equal number.
- Outside of Russia, radiation detection systems are operational at 19 Megaports with work underway in over 20 additional Megaports; and also operational at 53 international border crossings (land, rail, air and feeder ports) in 12 countries.
- Reviewed 7,241 export licenses/requests for proliferation risk last year, recommending denial of 197.

Strengthening International Nonproliferation Efforts And Regimes

- Repacked and removed 550 MT of uranium and 4,000 curies of radiological sources from the Tuwaitha Nuclear Research Complex in Iraq.
- Launched the Next Generation Safeguards Initiative to strengthen nuclear safeguards applied by the IAEA; strengthened the Nuclear Suppliers Group export control guidelines and control lists.
- Completed "123 Agreements" on nuclear cooperation with India and Turkey.
- Oversaw disablement activities at North Korean facilities; worked to dismantle Libya's WMD program.
- Engaged thousands of former weapons scientists and engineers in the FSU, Libya and Iraq, helping redirect them to the civilian sector, impeding the flow of WMD know-how.
- Trained over 6,400 domestic export enforcement officials in WMD awareness and over 11,000 international export control officials on WMD identification and strategic trade controls since 9/11; trained over 250 foreign officials annually on physical protection of nuclear materials and facilities and trained over 1,300 foreign technical personnel on nuclear safeguards and nuclear infrastructure development.
- Trained over 1,100 Russian and FSU personnel in the physical protection and material control and accounting of nuclear materials at three Rosatom training facilities.

Eliminating Weapons-Usable Material

- Monitored downblending of over 350 MT of former Soviet weapons-origin HEU for use in U.S. power plants, providing 10% of U.S. electricity.
- Downblended over 102 MT (enough for approximately 2,250 nuclear weapons) of surplus U.S. HEU into LEU for use as nuclear reactor fuel, with an additional 15 MT packaged and shipped for downblending (total of over 117 MT). Also converted almost 11 MT of Russian non-weapons excess HEU into LEU.
- Downblending an additional 17.4 MT of HEU for the Reliable Fuel Supply initiative.
- Working to dispose of at least 68 MT of U.S. and Russian weapons-grade plutonium by converting it into mixed-oxide (MOX) fuel for commercial nuclear power reactors. Continuing construction of the U.S. MOX Fuel Fabrication Facility.
- Ended 43 years of weapons-grade plutonium production in Seversk by shutting down two reactors, eliminating nearly a ton of weapons-grade plutonium production annually. Completed about 35% of the Zheleznogorsk fossil fuel plant to replace the last reactor, which will eliminate all weapons-grade plutonium production in Russia.
- Monitoring the safe storage of over 9 MT of Russian weapons-grade plutonium (nearly 1,125 warheads) to ensure that it is not used in the Russian nuclear weapons program.

Research and Development

- Advanced the state-of-the-art in timely and accurate analysis of nuclear proliferation related materials.
- Developed novel materials to significantly improve detection of illicit nuclear materials.
- Delivered ground and space based systems to detect nuclear detonations.
- Transferred 40 advanced safeguards technologies to strengthen IAEA safeguards; began 85 ongoing nuclear safeguards research and development projects in 15 countries.



DEFENSE NUCLEAR NONPROLIFERATION GLOBAL PROGRAMS



- Afghanistan
- Albania
- Algeria
- Argentina
- Armenia
- Australia
- Austria
- Azerbaijan
- Bahamas
- Bahrain
- Bangladesh
- Belarus
- Belgium
- Bolivia
- Brazil
- Bosnia & Herz.
- Bulgaria
- Burkina Faso
- Cambodia
- Canada
- Chile
- China
- Colombia
- Dem. Rep. Congo
- Costa Rica
- Croatia
- Cyprus
- Czech Rep.
- Denmark
- Dominican Rep.
- Ecuador
- Egypt
- El Salvador
- Estonia
- Ethiopia
- France
- Georgia
- Germany
- Ghana
- Greece
- Guatemala
- Haiti
- Honduras
- Hungary
- India
- Indonesia
- Iraq
- Israel
- Italy
- Jamaica
- Japan
- Jordan
- Kazakhstan
- Kenya
- Kuwait
- Kyrgyzstan

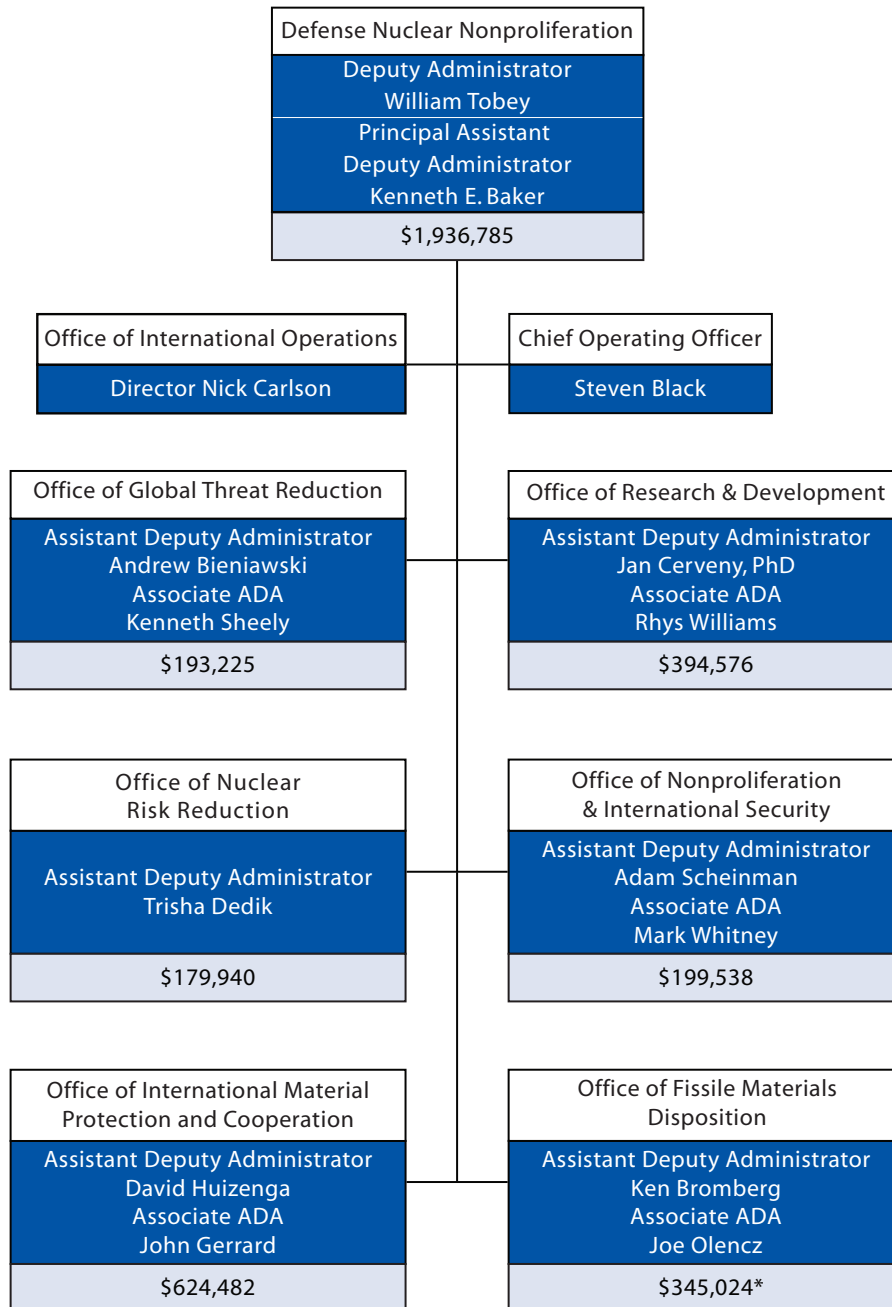
- Latvia
- Libya
- Lithuania
- Luxembourg
- Macedonia
- Malaysia
- Malta
- Mexico
- Moldova
- Mongolia
- Montenegro
- Morocco
- Nepal
- Netherlands
- Nicaragua
- Nigeria
- North Korea
- Oman
- Pakistan
- Panama
- Papua New Guinea
- Peru
- Philippines
- Poland
- Portugal
- Romania
- Russia
- Saudi Arabia
- Serbia
- Singapore
- Slovakia
- Slovenia
- South Africa
- South Korea
- Spain
- Sri Lanka
- Sweden
- Switzerland
- Syria
- Tajikistan
- Tanzania
- Thailand
- Tunisia
- Turkey
- Turkmenistan
- Uganda
- Ukraine
- UAE(Dubai)
- United Kingdom
- United States
- Uruguay
- Uzbekistan
- Venezuela
- Vietnam
- Yemen

Plutonium Producing Reactor Shutdown (1)	Convert HEU Fueled Research Reactors (43)
Global Initiatives for Proliferation Prevention (8)	Protect Nuclear/Radiological Materials (54)
Confidence Building Measures and Engagement (12)	Remove Nuclear/Radiological Materials (73)
Warhead Dismantlement and Transparency (5)	Second Line of Defense (21)
Highly Enriched Uranium Purchase Agreement (1)	Megaports (27)
International Nuclear Safeguards and Engagement Program (18)	Civilian Site Security (8)
International Nonproliferation Export Control Program (58)	Rosatom Nuclear Materials Security (1)
Physical Protection (26)	Plutonium Disposition (2)
Nuclear Noncompliance Verification (7)	
Cooperative Border Security Program (5)	

(#) Represents number of countries

Scope of Commitment

- \$2 billion budget (FY08 appropriation more than doubles 2001 appropriation).
- Engaging over 100 countries and the International Atomic Energy Agency (IAEA), through 19 programmatic activities.
- Contributed \$50 million to the IAEA to facilitate the creation of an international nuclear fuel bank.
- Nearly \$45 million in international contributions and pledges from 7 countries.
- 3 Service to America Award winners.



Budget figures in the \$1,000s - FY08 Appropriation

* Includes \$278,789 appropriated for the MOX program in the Nuclear Energy account.

Contact Information



U.S. Department of Energy
 National Nuclear Security Administration
 Office of Defense Nuclear Nonproliferation
 1000 Independence Ave., SW
 Washington, D.C. 20585
 (202) 586-0645

http://nnsa.energy.gov/nuclear_nonproliferation