Reported Accomplishments of Selected Threat Reduction and Nonproliferation Programs by Agency for Fiscal Year 2013

Ashley L. Kobi

This annual report summarizes the activities and accomplishments of cooperative threat reduction and nonproliferation programs around the globe by the Departments of Defense and Energy. These departments provide progress reports in their annual budget requests, Congressional testimony, and other public sources. This report aggregates that information and supplements the data with targeted outreach. Historically, this report has also included a summary of the Department of State’s relevant activities. However, a lack of public information regarding the accomplishments of these programs in the Fiscal Year 2013 (FY13) has prevented their inclusion in this year’s report.

Notably, the legal agreement enabling U.S. threat reduction work in Russia by the Departments of Defense, Energy, and State, (commonly known as the Nunn-Lugar Cooperative Threat Reduction Umbrella Agreement), expired on June 17, 2013. In its place, the United States and the Russian Federation signed a bilateral Protocol to the 2003 Framework Agreement on a Multilateral Nuclear Environmental Programme in the Russian Federation (MNEPR) in June 2013. While the new framework agreement covers U.S. threat reduction work with Russia’s civil nuclear agency, Rosatom, it excludes work with the Russian Ministry of Defense.

Consequently, cooperation between the U.S. and Russia on ballistic missile elimination, chemical weapons destruction, and nuclear warhead protection systems has ceased. Bilateral cooperation under the MNEPR Framework Agreement continued in a number of nuclear security and nonproliferation program areas, including securing nuclear and radiological materials, recovering and securing radioactive sources, consolidating nuclear materials, converting excess highly-enriched uranium (HEU) and HEU reactors to low enriched uranium (LEU), controlling nuclear and radiological materials at customs, and dismantling nuclear submarines.

For details on the last 13 years of threat reduction program accomplishments and background on legacy programs, please see the following annual reports issued by the Partnership for Global Security (PGS).

- 2013
- 2012
- 2011
- 2010
- 2009
- 2008
- 2007
- 2006
- 2005
- 2004
- 2003
- 2002
- 2001
- 2000
The Department of Defense’s (DoD) Cooperative Threat Reduction (CTR) program’s overarching mission is to partner with willing countries to reduce threats from weapons of mass destruction (WMD) and related materials, technologies, facilities, and expertise. The CTR program focuses on eliminating, securing, and consolidating WMD, related materials, and associated delivery systems and infrastructure at their source in partner countries. The CTR program also focuses on building partner capacity to prevent the proliferation of WMD materials in transit across international borders. The CTR program contributes to the DoD’s efforts by:

- Supporting a layered defense approach to countering WMDs
- Building strategic relationships with key international partners that enhance threat reduction on a global scale
- Supporting the resilience of the global nonproliferation framework by building partner capacities to enforce the tenets of that framework

The CTR program’s three objectives are:

- Reverse WMD programs by dismantling and destroying stockpiles of nuclear, chemical, or biological weapons, equipment, or means of delivery that partner countries own, possess, or that is in their control
- Account for, secure, and safeguard nuclear, chemical, and biological materials, equipment or expertise, which, if vulnerable to theft or diversion, could result in WMD threats
- Prevent and detect acquisition, proliferation, and use of nuclear, chemical or biological weapons, equipment, or means of delivery and knowledge

The CTR program is currently authorized to operate in the Former Soviet Union (FSU), Afghanistan, Africa, China, India, Pakistan, Iraq, Southeast Asia, Libya, and the Middle East. Furthermore, it operates world-wide for the transport of nuclear weapons and nuclear weapons components and the disposition of interdicted WMD and WMD-related materials.

CTR destruction activities and progress in other areas are outlined in the following table, known as the “Nunn-Lugar Scorecard.” The final update to this scorecard was made on June 30, 2014 due to the expiration of the CTR Umbrella Agreement on June 17, 2013 that ended threat reduction cooperation with the Russian Ministry of Defense.
## Nunn-Lugar Scorecard

<table>
<thead>
<tr>
<th>Program</th>
<th>Reductions as of June 30, 2013</th>
<th>2018 Target</th>
<th>% Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warheads Deactivated</td>
<td>7,616</td>
<td>9,265</td>
<td>82.2%</td>
</tr>
<tr>
<td>ICBM’s Destroyed</td>
<td>930</td>
<td>1,288</td>
<td>72.2%</td>
</tr>
<tr>
<td>ICBM Silos Eliminated</td>
<td>498</td>
<td>652</td>
<td>76.4%</td>
</tr>
<tr>
<td>ICBM Mobile Launchers Destroyed</td>
<td>197</td>
<td>359</td>
<td>54.9%</td>
</tr>
<tr>
<td>Bombers Eliminated</td>
<td>155</td>
<td>155</td>
<td>100%</td>
</tr>
<tr>
<td>Nuclear ASMs Destroyed</td>
<td>906</td>
<td>906</td>
<td>100%</td>
</tr>
<tr>
<td>SLBM Launchers Eliminated</td>
<td>492</td>
<td>612</td>
<td>80.4%</td>
</tr>
<tr>
<td>SLBMs Eliminated</td>
<td>695</td>
<td>748</td>
<td>92.9%</td>
</tr>
<tr>
<td>SSBNs Destroyed</td>
<td>33</td>
<td>40</td>
<td>82.5%</td>
</tr>
<tr>
<td>Nuclear Test Tunnels/Holes Sealed</td>
<td>194</td>
<td>194</td>
<td>100%</td>
</tr>
<tr>
<td>Declared CW Agent Destroyed (Metric Tons)</td>
<td>4,127.8</td>
<td>5,476.6</td>
<td>75.4%</td>
</tr>
<tr>
<td>Nuclear Weapons Transport Train Shipments</td>
<td>616</td>
<td>829</td>
<td>74.3%</td>
</tr>
<tr>
<td>Nuclear Weapons Storage Site Security Upgrades</td>
<td>24</td>
<td>24</td>
<td>100%</td>
</tr>
<tr>
<td>Cooperative Biological Engagement Laboratories Secured</td>
<td>52</td>
<td>82</td>
<td>63.4%</td>
</tr>
</tbody>
</table>

### Strategic Offensive Arms Elimination

The Strategic Offensive Arms Elimination (SOAE) program eliminates WMD delivery systems and associated infrastructure. This program supports destruction of strategic weapons delivery systems and associated infrastructure in Russia and Ukraine. The CTR program provides equipment and services to destroy or dismantle Intercontinental-range Ballistic Missiles (ICBM), ICBM silo launchers, road-mobile launchers, Submarine-Launched Ballistic Missile (SLBM), SLBM launchers, nuclear reactor cores of strategic Ballistic Missile Submarines (SSBN), and WMD infrastructure. This collaborative work in Russia will continue under the MNEPR Framework Agreement. In Ukraine, DoD provides assistance with the storage and elimination of solid rocket motors (SRM) from dismantled SS-24 ICBMs. This includes the provision of selected maintenance, consumables, and technical assistance to ensure the proper operation of the elimination facility, which Ukraine intends to use to remove solid propellant through water washout and to subsequently incinerate the SRM cases. SOAE maintains readiness to respond to any WMD delivery systems elimination in other countries.

FY2013 funds executed over three years will:
- Complete dismantlement of nuclear reactor cores and launcher sections of 1 Delta III-class SSBN and eliminate 16 SLBM launchers
- Assist Ukraine by financing 45 empty SRM cases
- Store Ukraine’s remaining SRMs
- Continue maintenance and repair of SRM storage facilities
- Provide logistical, administrative, and advisory support

**Chemical Weapon Destruction**

The Chemical Weapons Destruction (CWD) program works with partner nations to reduce the threat from chemical weapons (CW) by securing and destroying CW stockpiles and eliminating chemical agent research capabilities and production facilities. The CWD program is assisting the government of Libya in meeting its commitment to the Organization for the Prohibition of Chemical Weapons (OPCW) to destroy its chemical weapons stockpile. The CWD program also is providing safety and security improvements to the Ruwagha Chemical Weapons Storage Facility (CWSF) in the form of physical upgrades and ongoing destruction operations. The CTR program is the primary source of funding for destruction and external security in assisting the OPCW with respect to destroying Syrian chemical weapons. Contingency planning continues in order to be prepared to support CW nonproliferation and elimination activities elsewhere.

FY2013 funds executed over three years will:
- Provide physical security and safety improvements for chemical weapons storage and guard force training
- Assist with Libyan and Syrian chemical weapons elimination operations
- Prepare U.S. Navy ship for Syria CW destruction project, provide packaging for Syrian CW and dangerous precursors
- Provide technical and procurement advice and assistance support in other regions to eliminate and improve safety and security of chemical weapons
- Support contract closeout for projects in Russia
- Provide logistical, administrative, and advisory support

**Global Nuclear Security**

The Global Nuclear Security (GNS) program consolidates ongoing efforts to secure nuclear weapons and materials in the Former Soviet Union (FSU) and new initiatives to secure nuclear materials across the globe in support of the President’s Global Nuclear Lockdown Initiative. This program will augment security enhancements identified for Russia and expand nuclear security cooperation to new countries and regions, consistent with legislation and in coordination with the efforts of other United States Government (USG) Departments and international partners.

This program also helps establish Centers of Excellence and conducts technical exchanges with partner countries to enhance training capabilities consistent with international best practices. Areas of focus include nuclear security, material control, inventory management, transportation security, emergency response capabilities, and other activities important to improving nuclear security.

The GNS program transitioned remaining responsibility for safe and secure warhead transportation and physical security sustainment to the RF Ministry of Defense (MOD) in June 2013. The GNS program plans to continue to work with Russia to improve nuclear security.
Technical exchanges with the MOD will continue under a DoD Joint Staff – MOD General Staff Memorandum of Understanding (MOU), while work on nuclear materials security with Rosatom will be conducted under the MNEPR Framework Agreement. Outside Russia and the FSU, the GNS program works closely with the Department of Energy (DoE) and partner countries under various agreements and MOUs in accordance with existing authorities and determinations.

FY2013 funds executed over three years will:

- Establish and support technical exchanges with the Russian MOD on nuclear weapons security topics with the goal of enhancing and improving security systems, procedures, and best practices
- Continue support for Nuclear Security Centers of Excellence
- Provide equipment and training for partner countries to secure vulnerable weapons and useable material or special nuclear material
- Provide equipment and training to enhance nuclear security capabilities of partner countries to perform key security functions such as secure transportation, inventory management, and emergency response
- Support shipments of Spent Nuclear Fuel (SNF) and other nuclear material that meets the IAEA criteria as “weapons-useable” to consolidate and facilitate the disposition of the nuclear material
- Provide logistical, administrative, and advisory support

Cooperative Biological Engagement

The Cooperative Biological Engagement Program (CBEP) supports the “National Strategy for Countering Biological Threats” (Presidential Policy Directive-2, signed by the President on November 23, 2009), which seeks to prevent terrorists or non-state actors from accessing biological material of security concern or expertise that could contribute to a biological weapons capability. The program builds upon the indigenous capacities of regions and partner countries to safely and rapidly detect and report dangerous infections, enhances biorisk management, consolidates and secures pathogens of security concern, and establishes and enhances international research partnerships. The program builds regional and bilateral partnerships to mitigate biological risks and initiate timely and effective measures to contain trans-border disease threats.

The program trains partner country experts in current best practices across clinical, epidemiology, laboratory, veterinary, and environmental vector surveillance disciplines to detect, diagnose, report, and predict new and emerging disease threats rapidly and effectively. The program supports training and exercises for national response teams, thereby enhancing responses to and identification of, the cause of outbreaks. These findings are subsequently reported to appropriate international bodies such as the World Health Organization (WHO).

FY2013 funds executed over three years will:

- Fund biological safety and security enhancements in the following regions:
  - **Former Soviet Union**
    - Continue biological safety and security upgrades to human and veterinary laboratories in Armenia and Ukraine
    - Complete construction of a Ministry of Health training center in Uzbekistan
- Continue construction of the Central Reference Laboratory in Kazakhstan
- Continue oversight of Azerbaijan Central Reference Laboratory construction and installation of Biological Safety and Security (BS&S) systems and equipment
- Continue the programmatic development and country-specific implementation of BS&S Standard Operating Procedures in Armenia, Azerbaijan, Georgia, Kazakhstan, Ukraine, and Uzbekistan
- Continue the provision of Biorisk Management training in Armenia, Azerbaijan, Kazakhstan and Ukraine

Africa
- Initiate BS&S upgrades to human and veterinary laboratories in Kenya
- Install Pathogen Asset Control System (PACS) at key laboratories and conduct PACS training in South Africa
- Conduct Biorisk Management training in Kenya, Uganda, Tanzania, and South Africa

Middle East/South Asia
- Initiate laboratory upgrades in Iraq and Afghanistan
- Conduct Biorisk Management training for scientists from Iraq and Afghanistan
- Demonstrate electronic reporting system in Iraq

Southeast Asia
- Conduct Biorisk Management workshops in Malaysia
- Install BS&S equipment and conduct associated operation and maintenance training in Laos People’s Democratic Republic, Cambodia, and Vietnam

- Fund disease detection, diagnosis and reporting enhancements in the following regions:
  
  Former Soviet Union
  - Continue human and veterinary training in epidemiology, laboratory management, and disease diagnosis in Armenia, Azerbaijan, Georgia, Kazakhstan, and Ukraine
  - Continue cooperative biological research activities in Armenia, Azerbaijan, Georgia, Kazakhstan, Russia, and Ukraine
  - Continue transition of sustainment of laboratories in Azerbaijan, Georgia, Kazakhstan, and Ukraine
  - Continue Electronic Integrated Disease Surveillance System implementation, training, and upgrades in Armenia, Azerbaijan, Georgia, and Kazakhstan

Africa
- Conduct training in epidemiology, laboratory management, and disease diagnosis in Kenya, Tanzania, and Uganda
- Continue laboratory equipment upgrades in Kenya, Tanzania, and Uganda
- Initiate research activities in Uganda, Tanzania, and South Africa
- Continue research activities in Kenya and West Africa

Middle East/South Asia
- Install Electronic Integrated Disease Surveillance System and conduct associated training at multiple locations in Baghdad and Iraq
- Install laboratory diagnostic equipment in Iraq and Afghanistan and conduct associated operation and maintenance training in Iraq
- Conduct epidemiology training in Iraq and Afghanistan
Southeast Asia
- Install laboratory diagnostic equipment in Laos, Cambodia, and Vietnam as well as conduct associated operations and maintenance training
- Conduct laboratory management training in Cambodia and Vietnam
- Continue laboratory diagnostic training and capacity building activity in Cambodia

Proliferation Prevention
The Proliferation Prevention Program (PPP) builds partner countries’ capacity to interdict illicit trafficking of WMD and related components and technology. The program assists Armenia, Moldova, Georgia, Ukraine, the Middle East, and Southeast Asia to develop self-sustaining, multi-agency capabilities to prevent the proliferation of WMD materials, components, and technologies across their borders. The funds are used to develop PPP’s partners’ capacity in non-proliferation, counter-proliferation, border security and interdiction, disposition, and other areas related to chemical, biological, radiological, and nuclear (CBRN) identification, security, and incident response. The funds provide for equipment, training, and related assistance.

This program complements ongoing USG and international counter-proliferation assistance provided by the DoE Second Line of Defense Program, the Department of State (DoS) Export Control and Related Border Security Program, and the DoD’s International Counterproliferation Program. The program also complements the assistance provided by other USG and international partners that enhance counter-smuggling capacities, enhance border security, and increase maritime domain awareness and interoperability. Projects are leveraged with other U.S. and international programs to avoid duplication of effort.

Beginning in FY2013, the program began expansion outside of the FSU to Southeast Asia and the Middle East. In FY2014, the PPP will continue expansion activities in the Southeast Asia region on a bilateral and regional basis and will expand work with partners in the Middle East.

FY2013 funds executed over three years will:
- Continue improvements to Armenian Border Guard command and control, communications, surveillance, WMD detection and interdiction capabilities, and sustainment along the Georgian green border
- Continue to increase WMD Proliferation Prevention command and control, communications, surveillance, detection and interdiction capabilities, and sustainment in the Philippines, the South China Sea, and in other regional waters
- Begin engagement in the Hashemite Kingdom of Jordan along the Syrian green border to enhance WMD Proliferation Prevention detection and interdiction capabilities in order to prevent the illicit flow of WMD and related components to ensure resilience in the event of a WMD incident
- Assess potential similar engagements in Turkey, Iraq, and Lebanon if the security situation allows
- Support WMD Proliferation Prevention projects and activities in regions and countries in accordance with authorities and determinations
- Provide logistical, administrative, and advisory support
**Threat Reduction Engagement**

The Threat Reduction Engagement Program (TREP) supports activities that are linked to advancement of CTR program efforts. The CTR program issued new policy and program guidance in July 2012 and encourages proposals from Combatant Commands with a specific focus on bio-engagement and proliferation prevention in Sub-Saharan Africa, Pakistan, Afghanistan, and Iraq. The program also encourages proposals on bio-engagement, proliferation prevention and nuclear security in Southeast Asia. The CTR Program is also working with interagency partners to ensure that TREP-funded activities complement and leverage other USG engagements with partner countries’ respective Areas of Responsibility. New guidance now allows non-military/defense personnel participation, as long as their participation or attendance directly supports the execution of approved TREP events.

According to CTR’s Performance Criteria and Evaluation Summary, FY2013 through FY2015 funds will continue to support specific relationship-building opportunities with existing FSU countries, while shifting towards engagements and expansion of CTR Program areas with partners in new geographical areas.
Department of Energy, National Nuclear Security Administration

Defense Nuclear Nonproliferation (DNN) is the lead USG element for developing and implementing programs to limit or prevent the spread of nuclear and radiological materials and associated technology and expertise, to advance technologies that detect nuclear and radiological proliferation worldwide, and to eliminate or secure inventories of surplus materials and infrastructure usable for nuclear weapons. It is housed within DoE’s semi-autonomous National Nuclear Security Administration (NNSA).

DNN implements its mission by drawing broadly on the scientific and technical expertise of DoE, as well as the DNN capacity for international outreach and engagement and its project management, implementation, and policy expertise. In addition, DNN draws upon the core competencies of other elements of NNSA and DoE, particularly the Office of Nuclear Energy, the Office of Environmental Management, and the Office of Science.

DNN carries out this mission in a dynamic global security environment characterized by the persistence and escalation of regional conflicts; continued diffusion of dual-use technology and information; continued expansion of civilian nuclear energy; ongoing challenges related to managing existing nuclear and other radiological materials; increased sophistication of trafficking networks; continued evidence of terrorist interest in procuring nuclear materials; challenges to the nonproliferation regime, and the growth of cyber threats that can directly affect nuclear safeguards and security.

DNN is a strong contributor to interagency and international nuclear security efforts. In the United States, DNN works in partnership with other U.S. Government agencies, most notably the Departments of State and Defense, and the Nuclear Regulatory Commission. Internationally, DNN has a strong and long-established partnership with the International Atomic Energy Agency (IAEA). DNN also has active bilateral program coordination, as well as multilateral program coordination consultations, through forums such as the Nuclear Security Summit, the Global Initiative to Combat Nuclear Terrorism, and the Global Partnership against the Spread of Weapons and Materials of Mass Destruction.

Key FY2013 accomplishments include:

- Exceeded the target of 3,835 kilograms (kg) for FY2013 by 1,182 kg, including removing or verifying the disposition of 1,555 kg of HEU for a cumulative total of more than 5,017 kg of HEU and plutonium
- Converted or verified the shutdown of six research reactors or isotope production facilities from HEU fuels/targets to LEU, for a cumulative total of 88
- Recovered more than 8,500 radioactive sources from around the world, including high-activity sources in Philadelphia, Boston, and Juarez, Mexico, as well as removing the remaining Russian radioisotope thermoelectric generators from the Northern Sea Route
- Achieved 8-year goal of demonstrating the next generation of technologies and methods to detect Special Nuclear Material movement
- Delivered three Global Burst Detector payloads to the Air Force Space and Missile Systems Center for integration on the Final Global Positioning System (GPS) IIF satellite and the first two next-generation GPS III satellites for space-based nuclear detonation detection
• Monitored the conversion of 26 metric tons (MT) of Russian weapons-origin HEU to LEU for a cumulative total of 488 MT down-blended and verifiably eliminated
• Facilitated Burma’s (Myanmar) decision to sign and implement an Additional Protocol with the IAEA, allowing for expanded access to facilities and requiring greater information sharing with the IAEA about its nuclear activities
• Negotiated and signed a new bilateral nuclear security agreement and a new Agreement on Cooperation in Nuclear-and-Energy-Related Scientific Research and Development with the Russian Federation
• Deployed fixed radiation equipment to 20 sites in 7 countries and provided 16 mobile detection systems to 7 countries, all including the provision of training and initial sustainability support
• Completed first 12.1 MT of HEU down-blending for the MOX back-up LEU inventory and signed the 5 MT contract extension
• Produced 150 kg of certified plutonium oxide at Los Alamos National Laboratory as feedstock for the U.S. plutonium disposition program for a cumulative total of 592 kg

**Global Threat Reduction Initiative**

The Global Threat Reduction Initiative (GTRI) program reduces and protects vulnerable nuclear and radiological materials located at civilian sites worldwide that could be used by terrorists to make an improvised nuclear device or a radiological dispersal device. GTRI activities directly support DoE’s strategic objectives by enhancing nuclear security and reducing global nuclear dangers. This is accomplished through efforts to convert research reactors and medical isotope production facilities from the use of HEU to LEU, remove and/or eliminate excess nuclear and radiological materials, and secure nuclear and radiological materials. The GTRI program pursues these objectives through three subprograms: (1) Highly Enriched Uranium Conversion, (2) Nuclear and Radiological Material Removal, and (3) Nuclear and Radiological Material Protection.

Key FY2013 accomplishments include:

• Converted or verified the shutdown of six research reactors or isotope production facilities from HEU fuels/targets to LEU to meet the year’s cumulative target of 88 facilities
  • Exceeded the year’s target of removing or disposing of a cumulative total of 3,835 kg of vulnerable HEU and plutonium by reaching a cumulative total of 5,017 kg
  • Exceeded the year’s target of protecting a cumulative total of 1,603 buildings with high priority nuclear and radiological material by reaching a cumulative total of 1,675 buildings

**Defense Nuclear Nonproliferation Research and Development**

The Defense Nuclear Nonproliferation Research and Development (DNN R&D) program reduces global nuclear security threats through the innovation of unilateral and multi-lateral technical capabilities to detect, identify, and characterize foreign nuclear weapons programs, illicit diversion of special nuclear materials, and global nuclear detonations. The program leverages the unique facilities and scientific skills of the NNSA, other DoE national laboratories,
academia, and industry to perform research, conduct technology demonstrations, develop prototypes for integration into operational systems, and develop operational systems. The DNN R&D program pursues these objectives through two subprograms: (1) Proliferation Detection and (2) Nuclear Detonation Detection.

Key FY2013 accomplishments include:

- Met the 90% target for cumulative percentage of progress toward demonstrating the next generation of technologies and methods to detect plutonium production activities
- Met the 75% target for cumulative percentage of progress toward demonstrating the next generation of technologies and methods to detect Uranium-235 enrichment activities
- Met the 100% target for cumulative percentage of progress toward demonstrating the next generation of technologies and methods to detect Special Nuclear Material movement
- Met the 90% target for its annual index that summarizes the status of all NNSA nuclear detonation detection R&D deliveries that improve the nation’s ability to detect nuclear detonations

Nonproliferation and International Security

The Nonproliferation and International Security (NIS) program focuses on strengthening the nonproliferation regime in order to reduce proliferation and terrorism risks. This is accomplished through the application of its unique expertise to develop and implement programs to help strengthen nuclear safeguards and security; control the spread of dual-use WMD material, equipment, technology, and expertise; verify nuclear reductions and compliance with nonproliferation and arms control treaties and agreements; and develop and implement cross-cutting DoE/NNSA nonproliferation and arms control policy. The NIS program pursues these objectives through four subprograms: (1) Nuclear Safeguards and Security, (2) Nuclear Controls, (3) Nuclear Verification, and (4) Nonproliferation Policy.

Key FY2013 accomplishments include:

- Met target of 31 for cumulative number of countries where the International Nonproliferation Export Control Program (INECP) is engaged that have export control systems that meet critical requirements. Critical requirements are defined as having (1) control lists consistent with the WMD regimes; (2) initiated outreach to producers of WMD-related commodities; (3) developed links between technical experts and license reviewers and front-line enforcement officers; and (4) begun customization of educational materials and technical guides
- Exceeded target of 492 MT by reaching 493 cumulative MT of Russian weapons-usable HEU that U.S. experts have confirmed as permanently eliminated from the Russian stockpile under the HEU Purchase Agreement
- Met target of 5 for annual number of safeguards systems deployed and used in international regimes and other countries that address an identified safeguards deficiency
International Material Protection and Cooperation

The Office of International Material Protection and Cooperation (IMPC) employs a two-tier strategy to implement its mission through its Material Protection Control and Accounting (MPC&A) and Second Line of Defense (SLD) programs. As a first line of defense, the MPC&A program works with partner countries to improve security at nuclear facilities. MPC&A teams provide physical security system and nuclear material control and accounting upgrades as well as support for training and best practices technical exchanges. To complement these efforts, IMPC’s Second Line of Defense (SLD) program works to strengthen the capacity and commitment of foreign governments to deter, detect, and interdict illicit trafficking of nuclear and other radioactive materials domestically, across international borders, at internal checkpoints, and within the global maritime shipping system. SLD works in partnership with foreign governments to deploy fixed site and mobile radiation detection systems. It also provides training, maintenance, and sustainability assistance to support the mission of the global nuclear detection architecture to deter and detect the illicit trafficking of nuclear material. In the long term, each partner country must be able to sustain its ability to secure, reduce, and interdict nuclear materials. Therefore, IMPC works to improve indigenous nuclear security infrastructure at the site and national level by providing support in areas such as regulations and inspections, training, maintenance, performance testing, life-cycle planning, and nuclear security culture.


Key FY2013 accomplishments include:

- Secured a cumulative total of 218 buildings containing weapons-usable material with completed MPC&A upgrades
  - This is below the year’s target of completing upgrades at 229 buildings as a result of suspended cooperation with Rosatom while the MNEPR Framework Agreement and its implementing arrangements were being finalized
- Met target of a cumulative total of 513 SLD sites installed, including 45 Megaports
  - The FY2013 target was decreased to 513 sites from 531 sites as a result of a strategic review that resulted in a new funding profile for SLD installations

Fissile Materials Disposition

The Fissile Materials Disposition (FMD) program plays an important role in enhancing global nuclear security by disposing of surplus weapons-grade plutonium and HEU in a safe and secure manner, allowing the United States to meet our international disarmament and nonproliferation commitments. FMD achieves this by overseeing all activities relating to the disposition of HEU and plutonium which are excess to U.S. national security needs and assisting Russia in its efforts to eliminate its surplus weapons-grade plutonium. The program also plays an important role in international discussions aimed at developing plutonium management strategies with international partners.
The FMD program pursues these objectives through four subprograms: (1) U.S. Plutonium Disposition, (2) U.S. Uranium Disposition, (3) Construction, and (4) Russian Surplus Fissile Materials Disposition.

Key FY2013 accomplishments include:

- Exceeded the target of 143 cumulative metric tons of surplus U.S. HEU down-blended or shipped for down-blending by 0.8 MT
- Met the target of 592 cumulative kilograms of plutonium metal converted to oxide at Los Alamos National Laboratory
- Exceeded the target of 87% of design, construction, and cold start-up activities completed for the Waste Solidification Building by reaching 90% cumulative completion

Sources


