



Brig. Gen. Sandra Finan Named Principal Assistant Deputy Administrator for Military Application

Brig. Gen. Sandra E. Finan has been named Principal Assistant Deputy Administrator for Military Application at NNSA. Finan assists Don Cook, NNSA's deputy administrator for Defense Programs, in directing the Stockpile Stewardship Program.

"Gen. Finan's successful track record and extensive experience with our nation's strategic deterrent make her a perfect match for NNSA's Defense Programs," Cook said.

Finan most recently served as the Inspector General of the Headquarters Air Force Global Strike Command (AFGSC) at Barksdale Air Force Base. She was responsible for conducting independent, impartial and professional inspections on all matters affecting AFGSC readiness, discipline, efficiency and economy.

"I am excited to join the NNSA team at this critical time of advancement in our nuclear enterprise," Finan said. "I am honored to get to work with our nation's foremost experts as we maintain our nuclear stockpile, modernize the complex, and implement national policy."

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NNSA Honored for Project Management Excellence

This month, NNSA was recognized for excellence in project management with the 2010 Distinguished Project Award from the Project Management Institute (PMI), the world's leading professional membership organization for project managers. NNSA was given the award for developing G2, a state-of-the-art project management information system, created to manage NNSA's Global Threat Reduction Initiative (GTRI). NNSA is one of only 11 organizations to receive this award in PMI's history.

"I am extremely proud that NNSA has been recognized by the world's experts in project management for the excellent work being carried out by our very talented staff to implement the President's nuclear security agenda," said NNSA Administrator Thomas D'Agostino.

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NNSA MAJOR MILESTONE: Scientists from the Sevastopol National University of Nuclear Industry load S-36 Fuel Pins containing fresh highly enriched uranium (HEU) into a TK-S15 Container. See pages 4 and 5 for more on NNSA's successful removal of Ukraine HEU.

Administrator's Corner

A new year is always an opportunity to take a fresh look at what is working well and what we can do better. In that spirit, I'd like to start the year by speaking directly to you about where we are heading.



As you have heard me say many times, for the first time in years we have a broad national consensus on the role we play in keeping the American people safe and the resources we need to complete our mission. In short, we have our marching orders. Now it's time to get the job done.

For us here at headquarters, that starts with making sure we are building the enterprise we need to do the nuclear security work of tomorrow.

With your help, we have been transforming a Cold War nuclear weapons complex into a smaller, more efficient, and safer nuclear security enterprise. We have been working to ensure that we have the right contracting strategy in place. We have been working to build modern facilities and attract the next generation of nuclear scientists and engineers to our mission. And we have been working to streamline our oversight model so we can direct more resources to critical mission work.

As the next step, Principal Deputy Administrator Neile Miller and I recently announced that we are reorganizing the way our headquarters staff is structured. Our goal is to move this agency forward, remaking and realigning our program and mission support offices to better carry out the NNSA's work. I encourage you to look at the new organizational chart at <http://nnsa.energy.gov/aboutus/ourleadership>.

I think you will agree: this new structure more accurately reflects the way we operate and better positions NNSA to carry the successes of our first ten years into our next decade.

Tom D'Agostino

NNSA Honored for Project Management Excellence *(continued from page 1)*

"As we work in more than 100 countries to keep the American people safe and enhance global security, we are committed to ensuring we have highly effective project management practices in place and that we are good stewards of taxpayer money."

NNSA established GTRI in 2004 to consolidate efforts to prevent the acquisition of nuclear and radiological materials for use in weapons of mass destruction (WMD) and other acts of terrorism. In April 2009, President Obama announced his intention to lead a global campaign to secure all vulnerable nuclear material around the world within four years, placing renewed emphasis on NNSA and GTRI.

In addition to dramatically accelerating GTRI's work, the increased Presidential leadership was followed by significant increases in the program's budget. The President's Fiscal Year 2011 budget request sought \$558.8 million for GTRI, an increase of more than 67 percent from the previous year. With increased resources, a dramatically accelerated work load, and a global organizational structure, NNSA recognized the need for an integrated suite of program

management tools to successfully manage and carry out its mission. To address these complex challenges, NNSA developed a new project management information system called G2.

The goal of the G2 project is to incorporate all the project management tools into a single, comprehensive, and agile IT platform. For the first time, G2 allows NNSA project managers to quickly and effectively filter and analyze large amounts of real-time, geo-spatial linked information and integrate that data with scope, schedule, cost and infrastructure information for the entire portfolio of GTRI projects. As a result of G2, NNSA was able to increase the scale of its work and manage large increases in resources committed to GTRI without having to hire additional staff.

"NNSA is a model for organizations that value project management as a discipline that increases success rates, creates efficiencies and aligns with demanding strategic requirements," said Mark A. Langley, president and CEO of PMI. "Few organizational missions demand excellent project execution more than the NNSA G2 project. It is extremely deserving of a 2010 PMI Distinguished Project Award."

This is the second time in 2010 that PMI recognized a major NNSA program for excellence in project management. In October 2010, PMI awarded NNSA's National Ignition Facility the prestigious Project of the Year Award, citing groundbreaking technical achievement and exemplary management.

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Y-12 Begins B83 Dismantlements

Y-12 has completed the dismantlement of the first secondary from a retired B83, one of the biggest recent weapon systems ever built. The B83 was introduced into the U.S. nuclear stockpile in 1983. While the B83 remains in service, some of its components have been replaced and some retired B83s have been removed from the stockpile.

"Dismantlement of the first B83 secondary is an important demonstration of our nation's commitment to reducing the size of the nation's nuclear stockpile in support of our arms reduction treaty commitments and our nuclear nonproliferation objectives," said Don Cook, Deputy Administrator for Defense Programs. "I applaud the men and women at Y-12 and across the enterprise who have worked so hard to ensure the highest standards of safety as we continue to find ways to implement our program."

Y-12 has been working aggressively to prepare for B83 dismantlements for the past several years. Significant upgrades were made to key facilities, equipment, and tooling; and new dismantlement personnel were hired and trained to support this program.

Significant facility upgrades include electrical and utility improvements. Equipment deployment includes advanced machining equipment and specialized material handling systems and intricate tooling, most of which was designed and fabricated at Y-12.

These new equipment and facility upgrades will ensure the highest level of personnel safety and enable Y-12 to continue to meet dismantlement production requirements. As an added benefit, these upgrades are expected to cut processing times by more than 50 percent when compared to similar operations in the past.



DISMANTLEMENT COMPLETE: Y-12 has completed the dismantlement of the first secondary from a retired B83, one of the biggest weapon systems ever built. The B83 was introduced into the U.S. nuclear stockpile in 1983. While the B83 remains in service, some of its components have been replaced and some retired B83s have been removed from the stockpile.

Gen. Harencak Receives NNSA Gold Medal

Before leaving NNSA, Brig. Gen. Garrett Harencak (right) was presented with the Gold Medal of Excellence for Distinguished Service by NNSA Administrator Thomas D'Agostino in recognition of the general's exceptional leadership and service to NNSA. The medal is the highest honorary award granted by the agency.

Since March 2009, General Harencak served as NNSA's Principal Assistant Deputy Administrator for Military Application.

D'Agostino recognized Harencak for his success in leading Defense Programs at a time when the organization was playing a critical role in shaping the Nuclear Posture Review, negotiating the New START Treaty, and putting together the President's FY2011 Budget Request.

This month, Harencak took over the command of Air Force Nuclear Weapons Center at Kirtland AFB, N.M. That unit oversees both the 377th Air Base Wing and 498th Nuclear Systems Wing.



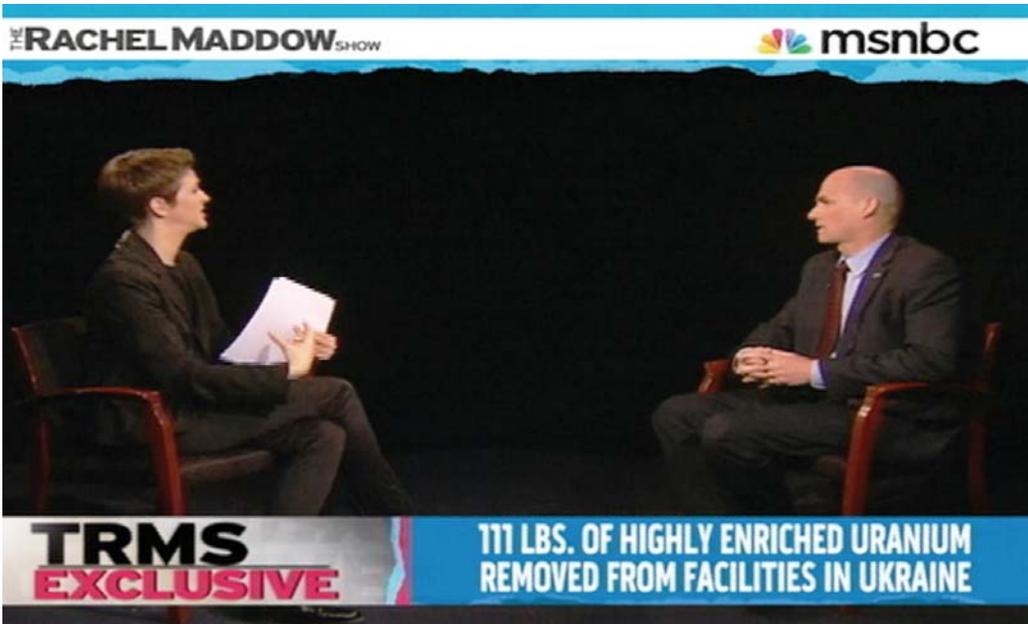
NNSA Achieves Major Milestone With Recent Removal of HEU From Ukraine

Last month NNSA successfully removed approximately 50 kilograms (111 pounds) of highly enriched uranium (HEU) fresh fuel from three sites in Ukraine. The shipments were completed in a joint effort with the Ukrainian government as part of President Yanukovich's pledge to remove all of Ukraine's HEU by 2012.

The Ukrainian President made this commitment at President Obama's April 2010 Nuclear Security Summit. "The removal of this highly enriched uranium from Ukraine is a major milestone that brings us one step closer to achieving President Obama's goal of securing all nuclear material around the world within four years," said NNSA Administrator Thomas D'Agostino. "At the Nuclear Security Summit in April, world leaders pledged to take action and make nuclear security a global effort.



TRANSPORTING RECOVERED HEU: A cask containing the fresh highly enriched uranium removed from the Kiev Institute for Nuclear Research is loaded onto an Ilyushin-76 cargo plane for a flight to Russia.



SECURING NUCLEAR MATERIAL: Rachel Maddow interviewed NNSA Administrator Thomas D'Agostino for a 15 minute segment on her show. The interview focused on NNSA's efforts to fulfill President Obama's commitment of securing all vulnerable nuclear material around the world.

Ukraine's contributions are a key part of that effort. These shipments were completed in close partnership with Ukraine, which has demonstrated leadership in the global effort to secure and consolidate highly enriched uranium to prevent it from falling into the wrong hands." In these latest fuel shipments, NNSA worked closely with Ukrainian authorities, the International Atomic Energy Agency, the Russian Federation, and the United Kingdom to safely and securely

transport the fuel. The HEU was transported by plane in specially-designed casks from Ukraine to Russia for secure storage and final disposition.

Earlier last year, NNSA and Ukrainian authorities successfully removed 56 kilograms of Russian-origin HEU spent fuel. Joint efforts are underway to ensure all remaining HEU is removed from Ukraine by 2012 in keeping with President Yanukovich's pledge made in April 2010.

Prior to removing the HEU, NNSA completed two air shipments of low enriched uranium (LEU) to replace the HEU located at the Kiev Institute for Nuclear Research and the Kharkiv Institute for Physics and Technology.

In addition to replacing the HEU that was returned to Russia with LEU that cannot be used for nuclear weapons, NNSA also provided the Ukrainians with new safety equipment and agreed to work with Ukraine and Russia to build a state-of-the-art neutron source facility at the Kharkiv Institute.

Joint efforts are currently underway to remove all remaining HEU from Ukraine before the next Nuclear Security Summit in 2012.

In a speech in Prague in April 2009, President Obama called for an international effort to secure all vulnerable nuclear material around the world within four years.

Shipments like these recently completed from Ukraine result in permanent threat reduction because they eliminate weapons-usable nuclear material at civilian sites. With the successful completion of these shipments, NNSA has now removed or assisted with the disposition of 3,085 kilograms of HEU and plutonium - enough material to make more than 120 nuclear weapons.



JOINT EFFORT: NNSA and Ukrainian experts load fuel assemblies containing fresh highly enriched uranium (HEU) into shipping casks at the Sevastopol National University of Nuclear Industry and Energy. In December 2010, NNSA removed 50 kgs of fresh HEU from Ukraine.

NNSA Announces All HEU Removed from Serbia

The removal in December 2010 of 13 kilograms (approximately 28 pounds) of Russian-origin highly enriched uranium (HEU) spent fuel from the Vinca Institute of Nuclear Sciences in Serbia was the culmination of an eight-year effort to remove all HEU from Serbia. With this shipment, Serbia is the sixth country to eliminate all of its HEU since President Obama's Prague speech in April 2009.

NNSA worked in partnership with the Republic of Serbia, the IAEA, the Nuclear Threat Initiative (NTI), the Czech Republic, the Russian Federation and the European Union on this critical mission.

In addition to the 13 kg of HEU spent fuel, the shipment also included approximately 2.5 metric tons of low-enriched uranium spent fuel.

The United States and Serbia share a long history of cooperation on nuclear nonproliferation issues. International cooperation at the Vinca Institute began in August 2002 when the U.S. government, Russia, and the IAEA removed 48.4 kilograms (more than 100 pounds) of HEU fresh fuel as part of the first shipment of Russian-origin HEU back to Russia. NTI also played a crucial role in gaining agreement for this shipment and providing financial support.

The Science of Nuclear Security

Kansas City Plant Develops Mobile Training Kit to Combat WMD Smuggling

Last month, NNSA delivered a mobile training kit to the State Customs Service of Ukraine in order to assist customs and border agents with the identification of dual-use chemical and biological equipment. The kit, one of eight produced for foreign partner countries, was developed and deployed as part of NNSA's International Nonproliferation Export Control Program (INECP) to familiarize customs and border security agents with dual-use commodities used in the development, production, testing, and delivery of nuclear, missile, chemical and biological weapons of mass destruction.

The new training kits, developed by the KCP's National Secure Manufacturing Center in collaboration with other DOE National Laboratories, contain nearly 70 sample items from 32 different companies, including some items specifically designed for the training.

Each kit contains demonstration materials, chemical identification and warning placards, commodity posters, and examples of biological and chemical production, testing, and delivery equipment. The kits are an important part of NNSA's training curriculum because they provide a hands-on approach to identifying dual-use chemical and biological materials and equipment. With the help of this innovative equipment, NNSA is improving international export control training for border security and customs agents around the world.

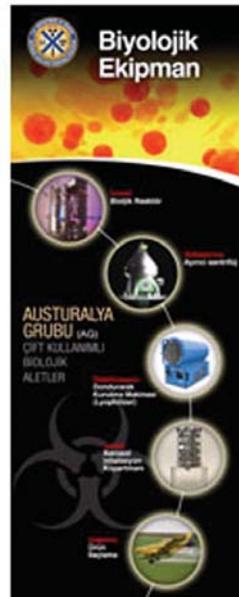
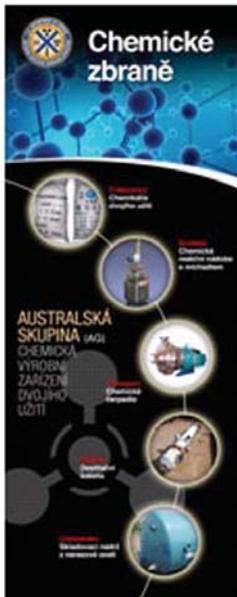


Japanese

Arabic

Czech

Turkish



EXPORT CONTROL TRAINING: Mobile training kits were developed at KCP to assist customs and border agents around the world to identify potentially dangerous equipment being transported through their territory. The kits contain demonstration materials, chemical identification and warning placards, commodity posters, and examples of dual-use biological and chemical production, testing, and delivery equipment

NNSA Hosts Third Annual International Meeting on Next Generation Nuclear Safeguards

In mid-December, the NNSA's Next Generation Safeguards Initiative (NGSI) hosted the third International Meeting on Next Generation Safeguards.

International nuclear safeguards are a central pillar of the nuclear nonproliferation regime as the primary vehicle for providing assurances to the international community that states party to the Nuclear Non-proliferation Treaty (NPT) are not diverting nuclear material from peaceful activities to nuclear weapons programs. NGSI is a key component of NNSA's effort to support those important safeguards.

This year's meeting, focused on discussing the Safeguards by Design (SBD) concept, brought together approximately 100 safeguards policy makers and technical experts from the nuclear regulators, operators and nuclear industry of 13 countries, as well as representatives from the International Atomic Energy Agency

NGSI is a key component of NNSA's effort to work with our international partners to strengthen nuclear safeguards intended to ensure the safe, secure and peaceful implementation of civil nuclear energy programs.

(IAEA), the European Atomic Energy Agency (Euratom), and Brazil-Argentine Agency for Accounting and Control of Nuclear Materials (ABACC).

The IAEA describes SBD as a concept in which broad international safeguards considerations and specific features are taken into account in the design of a new nuclear facility "from initial planning through design, construction, operation, and decommissioning." The achievement of these goals would save both industry and the IAEA time, money and effort.

This meeting was an extension of NGSI efforts to study and identify SBD best practices and lessons learned, engage industry on facilities planned in the United

States, and coordinate with the IAEA and industry to develop practical guidance documents for the application of SBD.

Meeting participants worked together to draft guidance outlining specific ways that SBD can be applied to four different nuclear fuel cycle facilities: enrichment, reactors, reprocessing and fuel fabrication.

NNSA launched NGSI in 2008 to develop the policies, concepts, technologies, expertise, and infrastructure necessary to sustain the international safeguards system as it evolves to meet new challenges over the next 25 years. NGSI is designed to revitalize and strengthen the U.S. safeguards technical and human capital bases.



DESTINED FOR CERTIFICATION:

Sandia National Laboratories Health Physicist Michael Spoerner and Sandia Site Office Waste Engineer Dave Rast watch two TRUPACT containers destined for certification at Idaho National Laboratory as part of an effort to remove all transuranic waste from Sandia by the end of Fiscal Year 2011. This is the first shipment of transuranic waste from Sandia in support of the DOE milestone to deinventory Small Quantity Sites.

Technology Transfer Awards for Livermore, Los Alamos and Sandia National Laboratories

Lawrence Livermore National Laboratory, Los Alamos National Laboratory and Sandia National Laboratories received a combined total of five 2011 Federal Laboratory Consortium (FLC) Awards for Excellence in Technology Transfer. The awards honor scientists and research organizations that successfully advance their technologies from the laboratory to the marketplace.

"The ability to commercialize products that result from the outstanding science and research happening across our enterprise is clear evidence that our nation's investment in nuclear security is providing the tools to tackle a broad range of global challenges," said Don Cook, Deputy Administrator for Defense Programs.

FLC recognized researchers at LLNL for developing an Environmental Sample Processor (ESP) with PCR Module, a compact device that will help identify new marine organisms and improve instruments for space exploration. Livermore was also recognized for developing the UWB Intracranial Hematoma Detector, an ultra wide band-based medical diagnostic device that can help first responders more quickly identify life-threatening health conditions in emergency situations, that demand a rapid response thus improving a victim's chance of survival.

LANL was recognized for supporting the development of Adaptive Radio Technology for Satellite Communications, a radio communications system prototype for use on miniature satellites, as well as the Genie Pro (GENetic Imagery Exploitation). LANL's Genie Pro software technology is a general purpose, interactive, adaptive tool for automatically labeling regions and finding objects in image data.

Sandia was recognized for developing a water disruptor, a device that shoots a blade of water to disable deadly improvised explosive devices, or IEDs. Sandia licensed the patent-pending technology to a small minority-owned business, TEAM Technologies Inc. Soldiers who had served in Afghanistan and Iraq field-tested the device during training and suggested improvements while the product was being developed.

FLC is the nationwide network of federal laboratories that provides the forum to develop strategies and opportunities for linking laboratory mission technologies and expertise with the marketplace.

Sandia Saves Taxpayer Money

NNSA and Sandia National Laboratories recently disposed of several surplus machine tools, saving the taxpayers more than \$100,000 in the process.

By avoiding the expense associated with characterizing, packaging, transporting and disposing of these tools, Sandia and NNSA demonstrated their shared commitment to being effective stewards of tax dollars.

"The removal of the surplus machine tools has generated significant savings to Sandia, NNSA and the American taxpayers," said Ken Powers, NNSA's Associate Administrator for Infrastructure and Environment. "This project is another example of our commitment to identifying creative ways to improve the efficiency of our operations as we work to transform a Cold War-era nuclear weapons complex into a 21st century national security enterprise."

The machine tools were used to support various national defense related projects at Sandia. The tools were used for the demilitarization of sensitive and classified hardware for which there was no longer an intended use. Alternate strategies for managing unneeded sensitive and classified hardware are now being employed, which resulted in these machine tools becoming surplus.

Working with NNSA and a Nuclear Regulatory Commission Agreement State-licensed vendor authorized to possess and process items contaminated with radioactive materials, Sandia was able to transfer title of the equipment at no cost to NNSA. The licensed vendor provided all transportation, logistics and dispositioning services as compensation to NNSA for the equipment.

The vendor will reuse this equipment for its intended purpose as machine tools in accordance with its radioactive materials license.

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