



National Nuclear Security Administration Monthly News

# Vice President Promotes Administration's Nuclear Security Agenda

In a speech at the National Defense University, Vice President Joe Biden outlined and reiterated President Obama's commitment to the nuclear security agenda he laid out in Prague last year, repeated in his



State of the Union address, and reflected in his FY 2011 budget request for the National Nuclear Security Administration.

"He made clear we will take concrete steps toward a world without nuclear weapons, while retaining a safe, secure and effective arsenal as long as we still need it," Biden said of the President's agenda. "We will work to strengthen the Nuclear Non-Proliferation Treaty. And we will do everything in our power to prevent the spread of nuclear weapons to terrorists and also to states that don't

already possess them."

The President's 2011 budget request for NNSA includes \$11.2 billion, up 13.4 percent from last year's request, for a much-needed reinvestment in the infrastructure required to maintain the nuclear stockpile without nuclear testing, prevent nuclear proliferation, power the nuclear Navy and provide the Nation with world class nuclear counterterrorism and emergency response tools.

In his speech, Biden highlighted the important nuclear and national security work that occurs at NNSA labs.

"At the vanguard of this effort, alongside our military, are our nuclear weapons laboratories, national treasures that deserve our support," Biden said. "Their invaluable contributions range from building the

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## NNSA Officials Participate in Second Annual Deterrence Summit

NNSA Administrator Thomas D'Agostino and several senior NNSA officials participated in the second annual Monitor Publication's Deterrence Summit in Alexandra, Va. D'Agostino delivered a keynote address in which he highlighted the President's FY 2011 NNSA budget request and announced a set of NNSA Operating Principles aimed improving operations across the nuclear security enterprise.

Administrator D'Agostino said the \$11.2 billion budget request, an increase of 13.4 percent as compared to FY 2010, "reflects both the President's commitment

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### Administrator's Corner

Earlier this month, the President submitted a Budget Request that increases NNSA's budget to \$11.2 billion, up 13.4 percent over FY 2010. This request reflects the President's commitment to the nuclear security agenda he outlined last year in his Prague speech, and to the critical work each of you are doing to implement this agenda.

Within that total, the President requested \$7 billion for our weapons activities account – a 10 percent increase that will reinvest in the critical infrastructure required to maintain the safety, security and effectiveness of the nuclear stockpile without nuclear testing. As Vice President Biden said this month in his landmark speech at the National Defense University, "some of the facilities we use to

handle uranium and plutonium date back to the days when the world's great powers were led by Truman, Churchill and Stalin. The signs of age and decay are becoming more apparent every day."

This Budget Request reflects the emerging consensus that recapitalizing our infrastructure supports our full range of nuclear security missions – managing a smaller stockpile, preventing proliferation, providing the Nation with nuclear forensics and counterterrorism capabilities, producing the technology for arms control treaty monitoring, and powering the nuclear Navy.

That's great news for our workforce, our enterprise and our country. But with these resources comes a renewed responsibility to being effective stewards of taxpayers' money. We must continue to promote proactive, sound management reforms that save money, improve the way we do business, and make us more efficient.

For example, the Zero-Based Security Review our Defense Nuclear Security Program has begun will lead to efficiencies in our security program, helping drive down costs while sustaining core physical security capabilities at our sites. Our Supply Chain Management Center has saved taxpayers \$130 million since 2007 by pooling purchasing power across the enterprise. And the Enterprise Reengineering Team has already begun to implement some of the great ideas you had for improving management and oversight across NNSA. I'm proud of the important contributions to U.S. national security that you make each day. Thank you!

Tom D'Agostino

#### NNSA Officials Participate in Second Annual Deterrence Summit

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to the unprecedented nuclear security agenda he outlined last year in his Prague speech, and the critical role NNSA plays in implementing that agenda." He also highlighted the connection between strengthening NNSA's infrastructure and strengthening nuclear nonproliferation efforts, saying "the same facilities, the same scientists, and the same core capabilities that support our stockpile also support these other missions."

Highlighting his commitment to ensuring that NNSA remains an effective steward of tax dollars, the Administrator summarized recent NNSA management reforms aimed at making the nuclear security enterprise more efficient and announced that he had recently signed new NNSA Operating Principles. D'Agostino said those Principles will help ensure that NNSA "remains a highly performing, highly reliable enterprise that consistently delivers its mission."

#### Vice President Promotes Administration's Nuclear Security Agenda

(continued from page 1)

world's fastest supercomputers, to developing cleaner fuels, to surveying the heavens with robotic telescopes."

Biden also set the stage for an exciting year in nuclear security by previewing the President's Nuclear Security Summit in April, the Non-Proliferation Treaty Review Conference in May, and support for ratification of the Comprehensive Test Ban Treaty.

"President Obama is determined, and I am as well, that the destroyed world Oppenheimer feared must never become our reality," Biden said. "That is why we are pursuing the peace and security of a world without nuclear weapons. The awesome force at our disposal must always be balanced by the weight of our shared responsibility."

# NNSA Lends Hand to Survivors of 2010 Earthquake in Haiti

Following the devastating 7.0 earthquake that rocked Haiti on Jan. 12, employees from across the nuclear security enterprise organized and mobilized to provide aid to survivors.

Shortly after the quake struck, NNSA dedicated the front page of its website to Haiti relief efforts and posted links to the State Department's information page and to the Red Cross. This was followed by an enterprise-wide message asking employees to consider donating to the effort.

Employees and sites throughout the enterprise also organized their own drives to provide assistance to survivors. Los Alamos National Laboratory saw an outpouring of support after highlighting more than two dozen organizations active in the Haiti relief effort in a message to employees and in their community newsletter. Lawrence Livermore National Laboratory notified their employees of numerous online resources, from contribution opportunities to State Department crisis information to a list of hospitals located in Port-au-Prince. And a rapid response from employees at Y-12 – following requests from site leadership - resulted in a \$22,000 donation to the Appalachian Chapter of the American Red Cross for assistance to first responders.

Some NNSA sites, contractors and employees found other inventive ways of supporting the Haiti relief effort. In addition to generous contributions to the

American Red Cross, employees at Sandia National Laboratories began an aluminum crutch drive. The light crutches are easier to transport and distribute to injured Haitians. The Kansas City Plant's (KCP) employees gave generously to support the needs of the Haitian people with

professionals, pharmaceuticals and other supplies to the crippled country.

And when the Department of Energy's Office of Infrastructure Security and Energy Restoration (ISEC) put out a nationwide call for trained volunteers, Roger Kuvalich – an electrical engineer at the NNSA



NNSA EMPLOYEE VOLUNTEERS IN HAITI: Roger Kuvalich (far right), an electrical engineer at the NNSA Y-12 Site Office, boards a helicopter for transport in Haiti. Kuvalich volunteered to help restore the country's power grid.

coordinated contributions to the American Red Cross and Heart to Heart International. KCP's contractor, Honeywell, responded by committing \$1 million – including 100 percent match of employee donations – to fund rebuilding projects in Haiti. Honeywell also made business iets available to transport medical

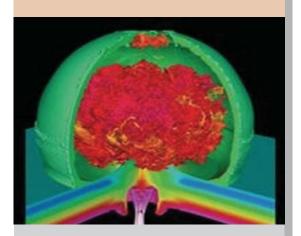
Y-12 Site Office – signed up to help on the ISEC's first foreign mission. Kuvalich was in Haiti from Jan. 22 to Feb. 2 working to restore the country's national electrical grid.

Today, NNSA employees continue their efforts to assist survivors of the devastating earthquake. You can help too by visiting: www.usaid.gov/haiti.

"The United States must continue to attract, develop and retain the outstanding scientists, engineers, designers and technicians we will need to maintain our nuclear arsenal, whatever its size, for as long as the nation's security requires it. This scientific capability is equally important to the long-term goal of achieving and maintaining a world free of nuclear weapons-with all the attendant expertise on verification, detection, prevention and enforcement that is required."

--George P. Shultz, William J. Perry, Henry A. Kissinger, Sam Nunn, WSJ, 1/19/10

#### Managing the Stockpile



Maintaining the safety, security and effectiveness of the nuclear deterrent without nuclear testing - especially at lower numbers - requires increased investments across the nuclear security enterprise.

Consistent with the principles of the Stockpile Management Program outlined by Congress, the FY2011 budget request seeks \$7 billion (up 9.8 percent) to:

- Design 21st Century uranium and plutonium facilities
- Ensure the capabilities to conduct Life Extension Programs
- Strengthen science, technology and engineering base
- Reinvest in the scientists and engineers who perform the mission

#### **Preventing Proliferation**



FY2011 Budget provides \$2.7 billion (up 25.8 percent) to implement President Obama's nuclear security vision, including his pledge to secure vulnerable nuclear material around the world within four years:

- \$590 million for International Nuclear Materials Protection and Cooperation, including \$265 million for Second Line of Defense and Megaports programs
- \$558.8 million (up 67 percent) for the Global Threat Reduction Initiative to secure nuclear and radiological material
- \$1 billion to work with Russia to permanently eliminate 68 metric tons of surplus weapons plutonium
- \$351.5 million (up 11 percent) for nonproliferation-related research and development
- \$155 million to strengthen global nuclear safeguards and nuclear controls and to verify arms control agreements

#### Powering the



NNSA's Naval Reactor design, development a required to ensure the repropulsion plants and e and long-lived operation. This budget requests repower a modern nuc

- Continuation of defent the reactor pla ballistic missile sul
- Core developmer
   S8G land-based pupstate New York
- Design work towa of the program's s infrastructure



#### National Nuclear Security Administration Implementing the President's Nuclear Security Vision Building a 21st Century Nuclear Security Enterprise

#### **Nuclear Navy**



rs Program provides the nd operational support militarily effective nuclear ensure their safe, reliable

nore than **\$1 billion to** lear Navy:

esign and development on the OHIO-class omarine replacement of and refueling of the prototype reactor in

rd the recapitalization pent nuclear fuel

#### Recapitalizing Our Nuclear Infrastructure



The FY2011 Budget Request increase represents the investment needed to transform a Cold War nuclear weapons complex into a 21st century Nuclear Security Enterprise. Investing in a modern, sustainable nuclear security infrastructure supports the full range of NNSA's nuclear security missions:

- Stockpile stewardship
- Nuclear nonproliferation
- Nuclear forensics
- Counterterrorism and emergency response
- The nuclear Navy
- Technology for arms control treaty monitoring

#### **Continuing Management Reform**



NNSA recognizes that increased resources require an increased focus on being an effective steward of tax dollars.

This budget request allows NNSA to continue promoting proactive, sound management reforms that save money, improve the way we do business and make us more efficient:

- The Enterprise Reengineering Team formed in April 2009 has already recommended steps for improving management and oversight acrossNNSA
- NNSA's Zero-Based Security Review will lead to efficiencies in our security program, helping drive down costs while sustaining core physical security capabilities at our sites
- The Supply Chain Management Center is saving taxpayers tens of millions of dollars – \$130 million since 2007

# The Science of Nuclear Security

# NNSA Participates in AAAS Annual Meeting

Researchers, scientists, physicists and engineers from across the NNSA enterprise presented at the American Association for the Advancement of Science (AAAS) annual meeting in San Diego, Calif., earlier this month.

an algae-based biofuels leading expert, presented an overview of the current state of research and development and associated opportunities and challenges for algal biofuels during the annual



SHOWCASING NNSA LAB WORK: Ron Pate, from Sandia National Laboratories, was one of the featured speakers at the AAAS annual meeting. He spoke about algae biofuels.

meeting. Julia Phillips,

director of the

Physical, Chemical, and Nano Sciences
Center at Sandia, gave a presentation on solid-state lighting and its potential as a nearterm generator of energy efficiencies.

Ed Moses, from

Lawrence Livermore National Laboratories (LLNL), gave a number of presentations on fusion energy and discussed the current and future state of NIF. Ian D. Hutcheon, from LLNL, presented a talk on Analytical Challenges in Detecting Undeclared Nuclear Activities. William Dunlop, LLNL, presented a talk on The White House and Lab-to-Lab Exchanges. James Brase presented Large-Scale Network Analysis for Counterterrorism. Christopher Barty, LLNL, discussed Revolutionizing Isotope Science and Applications with Laser-Like Gamma-Rays.

S. Thomas Picraux, from Los Alamos National Laboratory, organized a discussion on nanotechnology.

The American Association for the Advancement of Science is the world's largest General Scientific Society.

The theme of the annual meeting — "Bridging Science and Society" — called on scientists and engineers to make their work both beneficial and understandable and invited society to discover again the excitement and hope that research and its findings offer.

"This [was] an excellent opportunity for the talented individuals who comprise the nuclear security enterprise to showcase their work to a national and international audience," said Brig. Gen. Garrett Harencak, principal assistant deputy administrator for military application. "Our people are among the best in their respective areas of science, technology, engineering, education and policy-making. Events like AAAS give them an opportunity to showcase their expertise and highlight the benefits of our country's investment in nuclear security."

Sandia National Laboratories researcher Ron Pate.

# **NNSA Commemorates Black History Month**

This February, sites across the nuclear security enterprise took time to commemorate Black History Month, recognize the contributions of African Americans

throughout American history and encourage future leaders to pursue careers in science, technology and engineering.

All three NNSA national laboratories - Lawrence Livermore (LLNL), Los Alamos (LANL) and Sandia - hosted events with prominent black speakers in recognition of Black History Month. The African American Body of Laboratory Employees (ABLE) group and the Strategic Diversity Program at LLNL hosted Dr. Beverly Daniel Tatum, President of Spelman College. renowned authority on the psychology of racism and bestselling author. Dr. Tatum was the keynote speaker at the lab's

"Celebrating Progress,

Combating Complacency" event.

For LANL's Black History Month

event, NASA aerospace engineer

Aprille Ericsson talked about her

work at NASA, contributions African American scientists have made to science, technology, engineering, math, and medicine, and the education and training required to



COMMEMORATING BLACK HISTORY MONTH: Aprille Ericsson, NASA aerospace engineer, speaks with LANL's employees in the Physics Building Auditorium lobby after her talk at LANL's Black History Month event.

become an aerospace engineer.
And at Sandia, the lab's Black
Leadership Committee teamed up
with the Alpha Phi Alpha Fraternity
to sponsor a screening of Inside
Buffalo, a WWII documentary about
the outstanding heroism of the
92nd Buffalo Division and the 366th
Combat Infantry Regiment. There
was a question and answer
session held afterward with director

Fred Kudjo Kuwarnu. Also, the Pacific Northwest National Laboratory (PNNL), which supports NNSA nonproliferation programs, annually presents its Community

> Stewardship Award during Black History Month to the person who best promotes and supports the contributions and achievements of African American and other minority communities.

> Another NNSA site, The Kansas City Plant (KCP), honored its African American leaders of the past, present and future by paying tribute to the organization's first African American President Lou Smith, former Kansas City Site Office Manager Steve Taylor and U.S. Congressman Emmanuel Cleaver, who was a KCP production planner

early in his career. KCP also hosted community outreach events to mentor young at-risk students and encourage interest in math, science and engineering.

The roots of Black History Month go back to 1926 when Dr. Carter G. Woodson launched the effort in order to bring attention to the contributions of African Americans throughout American history.



LAST SGT AT KCP: Kansas City Plant Employees pose at a ceremony commemorating the end of Safeguards Transporter (SGT) production at the plant. The SGT is used by NNSA's Office of Secure Transportation (OST) for the safe and secure transport of nuclear weapons, weapon components and strategic nuclear materials throughout the United States. Jeff Harrell, assistant deputy administrator for OST, said, "This outstanding achievement is fully due to the professionalism, dedication, and teaming of all federal and contracting participants."

# Mentoring Program Connects NNSA Employees Across the Nuclear Security Enterprise

NNSA employees looking for a little extra on-the-job training now have a new resource: a mentoring program that applies 21st century tools to invigorate learning and promote the transfer of institutional knowledge across the nuclear security enterprise.

The mentoring program uses an interactive website and database to connect mentors to mentees in NNSA facilities across the country, helping employees identify the skills they need to learn and the colleagues who can teach them.

"At NNSA, our people are our greatest asset, and we must make sure we're doing everything we can to preserve and share knowledge as our highly skilled workforce transforms," said Michael Kane, associate administrator for NNSA's Office of Management and Administration. "Our ability to implement the President's unprecedented nuclear security agenda depends on our ability to recruit and retain the next generation of nuclear security professionals and ensure that they have the tools they need to succeed."

Roughly 28 percent of NNSA employees will be eligible for retirement by 2012. Through a number of programs, the agency is aggressively recruiting the next generation of nuclear security professionals to ensure NNSA can safely, securely and effectively maintain the nation's nuclear stockpile without testing, prevent the proliferation of nuclear weapons and material, power the nuclear Navy, counter nuclear terrorism and respond to radiological emergencies in the United States and around the globe.

The mentoring program will be available to federal employees at all nine NNSA sites, including headquarters in Washington, D.C.

This will allow employees at different physical locations to match skills to needs without geographic boundaries. Mentoring will be available in person as well as by phone, video or Internet. For more information, contact Mary.Cummings@nnsa.doe.gov.



HIGHLY ENRICHED URANIUM MATERIALS FACILITY: Loading of the first shipment of highly enriched uranium begins ahead of schedule at the new highly secure storage facility at NNSA's Y-12 National Security Complex.

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