



Teamwork Pays Dividends For Y-12 Dismantlement

Determination, dedication, teamwork, communication, commitment, energy, and wisdom. Sounds like all the makings of a motivational speech. But for the people in the Y-12 National Security Complex's Directed Stockpile Work organization, these have become the watchwords of success.

Y-12 recently completed the last dismantlement of two modifications of the B61, a nuclear bomb deployed primarily on United States Air Force aircraft, and the W56, a nuclear warhead associated with the Minuteman II Intercontinental Ballistic Missile.

Marty Schoenbauer, NNSA's principal assistant deputy administrator for operations, visited Y-12 to congratulate employees on their achievement.

Last dismantlement units, also known as LDUs, means that these particular weapons are forever removed from the stockpile.

"The President is committed to having the smallest nuclear weapons stockpile necessary for national security needs," said Tom D'Agostino, NNSA's acting administrator. "The final dismantlement of these two types of Cold War-era weapons components clearly demonstrates our dedication

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NNSA Launches Unique Diagnostic Facility

Another resource has been added to NNSA's emergency response capabilities in the event of a nuclear or radiological accident or terrorist attack. The new Cytogenetics Biodosimetry Laboratory (CBL) in Oak Ridge, Tenn. can help determine the amount of radiation that a potential victim has been exposed to so that physicians can better formulate treatment plans.

"Determining the amount of radiation exposure can ultimately mean the difference between life and death for the victims," said Joseph Krol, the head of NNSA's emergency operations. "This facility is absolutely unique within the civilian community and it will help to ensure that our nation is ready and able to respond to a nuclear emergency. We are very pleased that NNSA was able to provide the federal

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SIGNATURE EVENT: Y-12 recently celebrated the completion of work on the Last Dismantled Unit (LDU) of the W56. The reentry vehicle for the W56 LDU is shown in the photo, signed by Y-12 and NNSA employees. For a list of all team members in the photo see page 2.

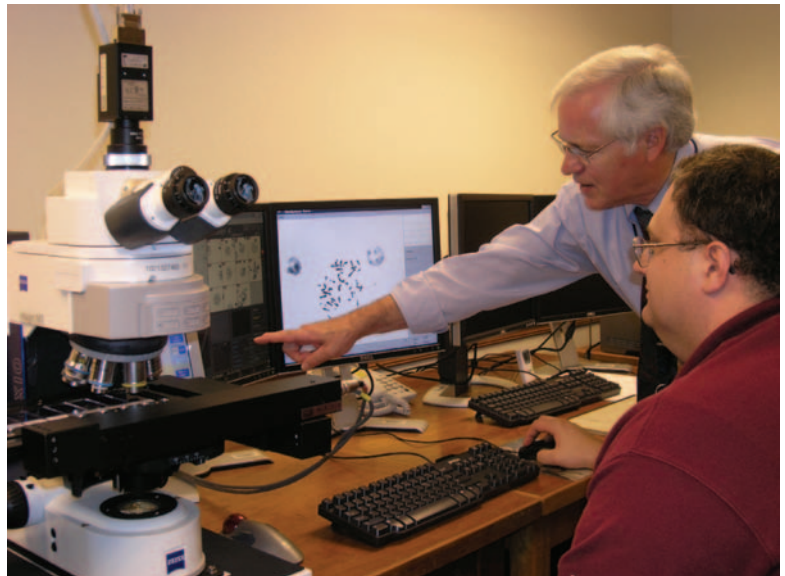
NNSA Launches Unique Diagnostic Facility

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leadership necessary to re-establish this important national security capability."

Cytogenetic biodosimetry is a proven method for accurately estimating how much exposure a person has had to radiation. A cytogenetics laboratory operated at Oak Ridge until 1998, and after that the military had the nation's only cytogenetic capability. With the increased focus on nuclear terrorism since the 9/11 terrorist attacks, NNSA decided to re-establish civilian cytogenetic capabilities by constructing an improved laboratory. The new CBL was jointly funded by NNSA, the Department of Energy's Office of Worker Safety and Health, and the Nuclear Regulatory Commission.

The laboratory will be operated as part of NNSA's Radiation Emergency Assistance Center/ Training Site (REAC/TS) within the Oak Ridge Institute for Science and Education. REAC/TS is recognized both nationally and internationally as a leader in the management of medical accidents involving radiation. REAC/TS teams of experts are prepared and ready to respond immediately to any type of radiological accident or terrorist incident anywhere in the world. The teams provide treatment and medical consultation for injuries resulting from radiation exposure and contamination, as well as providing training to others.



CYTOGENETIC CAPABILITIES: Dr. Gordon Livingston (top) and Dr. Mark Jenkins review images of metaphase spreads on the Zeiss microscope at the Cytogenetic Biodosimetry Laboratory in Oak Ridge, Tenn. The microscope is part of an automated laboratory workstation that locates metaphase cells used by cytogeneticists to measure the number of dicentric chromosomes and determine an individual's estimated dose of radiation.

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to reducing the size of the nuclear stockpile. This is a tremendous achievement and one that Y-12 should be proud of."

To meet NNSA's goals, Y-12 was faced with the task of dramatically increasing its component dismantlement rate. Ted Sherry, Y-12 Site Office manager, said, "By redesigning and streamlining its dismantlement process and redefining procedures and requirements, Y-12 significantly increased its pace and rate of dismantlement activities to achieve something that had not been done at Y-12 in 14 years, the dismantlement of components from two major weapon systems in the same year at virtually the same time."

"I know this may sound like a cliché, but it was a true team

effort, from the shop floor up to the senior managers," said Dan Linehan of Directed Stockpile Work.

There were administrative questions, tooling questions, scheduling questions and equipment questions that had to be addressed. A majority of the focus was on continuity of operations.

"We worked very hard at keeping things going. It's a lot harder to start up again if you've stopped. So, as issues came up, we addressed them. That made a tremendous difference," Linehan said.

Glenn Bridges of Y-12's Engineering Group, who participated in the original manufacture of some of these weapons components and was also on hand for the final dismantlement, said, "When the team first looked at this work, at the time table, at the work load, there were some people who,

frankly, didn't believe we could do it. We had to convince them that everybody, and I mean everybody, was committed to the success of this. When that happened, these early doubters jumped on the train. There was a lot of energy and wisdom at work on this, from the young engineers to our most experienced people on the floor."

W56 LDU Team Members: Pictured in the front page photo are front, left to right: Steve McGhee, BWXT Y-12 process engineer; George Dials, president and general manager, BWXT Y-12; Marty Schoenbauer, NNSA principal assistant deputy administrator for operations; Wendy Baca, director, NNSA ICBM Division; Steve Liedle; deputy general manager, programs, BWXT Y-12; Dan Linehan, program manager in Directed Stockpile Work, BWXT Y-12. On the back row, from left to right: Darrel Kohlhorst; deputy general manager, Operations, BWXT Y-12; Glenn Bridges, BWXT process engineer; Steve Wyatt, public affairs manager, Y-12 Site Office; Jim Hackworth, production support manager, BWXT; Rick Collier; senior program manager, Y-12 Site Office; Ted Sherry, Y-12 Site Office manager.

NNSA Announces Key Nuclear Non-proliferation Projects With Vietnam

A research reactor in Vietnam will be converted from highly enriched uranium (HEU) to low enriched uranium under contracts signed with NNSA. The contracts will also secure nuclear and radiological materials. The initiative implements a commitment made by both countries during President Bush's October 2006 trip to Vietnam. It also supports the Bratislava Joint Statement on Nuclear Security Cooperation issued by Presidents Bush and Putin in February 2005.

NNSA signed a contract with the Vietnamese Atomic Energy Commission to supply the low enriched fuel needed to convert the Russian-supplied Dalat research reactor in Vietnam. NNSA will also work closely with Vietnam, under a contract with the International Atomic Energy Agency, to return the fresh, highly enriched fuel back to Russia for safe and secure disposal.

"We commend the government of Vietnam and applaud their leadership in taking this significant step to protect nuclear material."

**Tom D'Agostino
NNSA Acting Administrator**

In addition, NNSA and Vietnam recently signed contracts to enhance the physical security at the Dalat reactor and other radiological facilities in Vietnam.

The NNSA funded projects will be administered through its Global Threat Reduction Initiative (GTRI), whose mission is to identify, recover and secure high-risk vulnerable nuclear and radiological materials around the world as quickly as possible.

GTRI also has a prioritized and accelerated schedule of shipments to return eligible Russian-origin HEU. GTRI has already safely returned more than 495 kilograms of this material from Serbia, Romania, Bulgaria, Libya, Uzbekistan, the Czech Republic, Latvia, Poland, and Germany.

Kansas City Plant Implements New Oversight Plan

A new federal oversight plan for NNSA's Kansas City Plant (KCP) in Missouri has been implemented following approval from Department of Energy Deputy Secretary Clay Sell.

Kansas City Site Office (KCSO) Manager Steve Taylor said, "This oversight plan is intended to improve and streamline federal oversight based on strong management assurance by our management and operations contractor, Honeywell FM&T."

NNSA's vision is to focus on reducing the overall operating cost for accomplishing the non-nuclear mission work assigned to the KCP, leveraging commercial production and providing a smaller, more responsive facility for non-nuclear production.

The KCSO and Honeywell FM&T worked closely on an integrated management and oversight process. Under the plan, Honeywell FM&T will provide functional leadership, set core processes and policies, and determine best practices to be implemented, all while providing visibility of its management approach to the NNSA. NNSA headquarters will continue to provide core mission program management for the site's operations.

"The changes should enable Honeywell FM&T more flexibly to manage the enterprise with business practices that are more commercially-oriented," Taylor said.

The KCSO will define a set of operating requirements for the contractor, and monitor the contractor's performance through a combination of information provided through Honeywell FM&T's management assurance system and KCSO's assessment of systematic compliance against national and site specific standards. The performance evaluation report process will remain central to driving the appropriate expectations for a balanced performance.

Honeywell FM&T President Vince Trim said, "The oversight plan is an enabler for the future of the KCP as considerable cost savings can be realized from more closely aligning non-nuclear production with commercial industrial practices rather than those driven by DOE orders formulated for the operation of facilities that handle nuclear material."

FY 2008 Budget Request

Reducing Global Danger,

EDITOR'S NOTE: The following are excerpts from Acting Administrator Tom D'Agostino's written and oral testimony before the House Armed Services Strategic Forces Subcommittee in March. Deputy Administrator for Defense Nonproliferation Will Tobey joined D'Agostino on the panel at the March hearing.

The President's fiscal year (FY) 2008 budget request for NNSA totals \$9.4 billion, an increase of \$306 million

administrator to submit to Congress each year the estimated expenditures necessary to support the programs, projects and activities of the NNSA for a five-year fiscal period, in a level of detail comparable to that contained in the budget.

The FY 2008-2012 Future-Years Nuclear Security Program projects \$50 billion for NNSA programs through 2012. This is an increase of about \$1.5 billion over last year's projections in line with the administration's strong commitment to the nation's defense and homeland security. The FY 2008 request is slightly smaller than last year's

"I am confident that NNSA is headed in the right direction in the coming fiscal year."



or 3.4 percent over the FY 2007 operating plan. We are managing our program activities within a disciplined five-year budget and planning envelope, and are successfully balancing the administration's high priority initiatives to reduce global nuclear danger as well as future planning for the nation's nuclear weapons complex within an overall modest growth rate.

The NNSA budget justification contains information for five years as required by Sec. 3253 of P.L. 106-065. This section, entitled Future-Years Nuclear Security Program, requires the

projection; however, the outyears are increased starting in 2009. Within these amounts, there is significant growth projected for the Defense Nuclear Nonproliferation programs to support homeland security, including new initiatives and acceleration of threat reduction programs and increased inspection of seagoing cargoes destined for ports in the United States.

The FY 2008 budget request for the programs funded within the Weapons Activities account is \$6.51 billion, an approximately 3.8 percent increase over the FY 2007 operating plan. It is allocated to adequately provide for the safety, security and reliability of the nuclear weapons stockpile and supporting facilities and capabilities.

This request supports the requirements of the Stockpile Stewardship Program consistent with the administration's Nuclear Posture Review and subsequent amendments, and

Planning The Future Weapons Complex

the revised stockpile plan submitted to the Congress in June 2004. Our request places a high priority on accomplishing the near-term workload and supporting technologies for the stockpile along with the long-term science and technology investments to ensure the design and production capability and capacity to support ongoing missions. This request also supports the facilities and infrastructure that must be modernized to be responsive to new or emerging threats.

The department has made significant strides over the past year to transform the nuclear weapons complex. The

Complex 2030 planning scenario was introduced in 2006 and has already resulted in a number of accomplishments. We have not created a separate budget line for our transformational activities in the FY 2008 budget request. Implementation actions to bring about transformation are incorporated into existing program elements.



Synergy: NNSA Weapons And Nonproliferation Programs

There is very real and effective synergy between the NNSA's weapons activities and our nonproliferation programs and the overall goal of doing all we can to strengthen U.S. national security through the military application of nuclear energy and by reducing the global threat from terrorism and weapons of mass destruction. [For example, over 13,000 U.S. warheads were dismantled from 1988 through 1999. NNSA continues to dismantle warheads that are excess to

national security needs and for surveillance purposes, and we are exceeding our goals for increased dismantlements in FY 2007.]

Operationally deployed U.S. and Russian strategic nuclear warheads will not exceed 1,700 to 2,200 each by December 31, 2012. In 2003, the Department of Energy completed dismantlement of most non-strategic nuclear weapons, limiting our stockpile of these systems to less than one-tenth of Cold War levels. In May 2004, President Bush approved a plan that will cut the U.S. stockpile by almost one-half from the 2001

level. By the end of 2012, the department's efforts will have reduced the stockpile to its smallest level in several decades. In addition to weapons dismantlement, the department is making tremendous progress to reduce and eliminate fissile material made surplus to defense requirements.

I am confident that NNSA is headed in the right direction in the coming fiscal year.

Infrastructure Funding Reaping Results At LANL, Pantex

New Buildings At Pantex

NNSA's Pantex Plant, in Amarillo, Texas, is taking on the look of a more modern facility with the assistance of the Facilities and Infrastructure Recapitalization Program (FIRP) and a strong partnership between the Pantex Site Office and BWXT Pantex. Through the program, four new buildings have opened their doors ensuring modern facilities will be ready to support NNSA's Complex 2030 plan.

"FIRP funding has enabled BWXT Pantex to provide much needed facility and infrastructure upgrades to ensure the plant is prepared for future mission support," said John Woolery, director of NNSA's Directed Stockpile Work and Campaigns.

The FIRP mission is to restore, rebuild and revitalize the physical infrastructure of the nuclear weapons complex. FIRP also is

supporting NNSA's Complex 2030 modernization efforts. The program applies new direct appropriations to address an integrated, prioritized series of repair and infrastructure projects



INFRASTRUCTURE UPGRADES: Dino Herrera, (far left) director, NNSA's Infrastructure & Facilities Management, attended the ribbon cutting for the new Records Management Center at the Pantex Plant. BWXT Pantex used FIRP money to construct the building.

focusing on deferred maintenance that will significantly increase the operational

efficiency and effectiveness of the NNSA weapons complex.

Fulfillment of the FIRP mission is strongly evident at Pantex with the recent addition of a new administration building, the Records Operations Center, the Technical Support Facility and the Tester Design Facility. BWXT Pantex was able to complete construction on these buildings with a perfect safety record.

To prepare the site for these new buildings, a chemistry laboratory and ancillary structures were demolished using FIRP funds. Likewise, the new facilities pave the way for additional disposition of modular and WWII structures that have exceeded their useful life. Demolition of those structures will result in a net reduction to the total square footage at Pantex as well as reduced energy consumption and maintenance costs.

Los Alamos Radioactive Waste Treatment Facility Reopens

Refurbishments to the high-level Radioactive Liquid Waste Treatment Facility (RLWTF) waste tanks and collection system at Los Alamos National Laboratory in New Mexico have been completed with NNSA's FIRP funds.

The Technical Area (TA)-50 plant upgrade clears the way for the RLWTF to once again accept high-level radioactive liquid waste from stockpile mission activities at the laboratory's Plutonium Processing Facility at TA-55.

Dino Herrera, the FIRP program manager at NNSA, said FIRP funding was effectively used to complete the refurbishments, which included replacement of a 2,500-gallon caustic waste holding tank and a failing retaining wall. He said FIRP is funding two additional projects at TA-50.

"The personnel at the RLWTF are to be commended for their steady and conscientious actions to safely bring the 43-year-old plant's capability back on line to treat high-level waste

while a replacement facility can be planned and constructed," said Andy Phelps, LANL associate director for Environmental Programs, which has responsibility for the facility.

"Successfully restoring this important capability at RLWTF allows us to sustain important stockpile stewardship activities at TA-55, which are vital to our overall success in maintaining the U.S. nuclear deterrent," said Glenn Mara, principal associate director for weapons programs. "The hard work and perseverance of everyone who worked this issue is greatly appreciated."

Legacy radioactive contamination was removed from numerous areas of the plant, and new and updated operation and safety procedures and protocols have been adopted for plant operations.

A replacement plant for the current RLWTF is scheduled to be complete by 2012, with construction commencing as early as 2008.

NNSA Satellite Launched On Atlas-5 Rocket

A small-but-smart satellite experiment, the Cibola Flight Experiment (CFE), developed at NNSA's Los Alamos National Laboratory, was successfully launched into orbit 350 miles above Earth aboard a United Launch Alliance Atlas-5 rocket. The satellite will test leading-edge technologies that will be incorporated into future generations of satellites that will monitor the globe for nuclear detonations.

Cibola is one of six experimental satellites aboard the U.S. Department of Defense Space Test Program-1 mission and was the fifth satellite to separate from the main unit, 62 minutes after launch, over Australia.

Project Leader Diane Roussel-Dupre said, "It looks like the CFE mission is off to a great success. This type of success can only be realized by the dedication of a quality team. I am honored to have been a part of this team. We can all be proud to have been contributors."

As with the previous Los Alamos ALEXIS and FORTE satellite missions, Cibola will utilize a specialized ground tracking station located at Los Alamos and all satellite operations

and data analysis will be conducted from the site. CFESat is a technology

orbit-averaged power, then deploy two long booms and three payload antennas: one on the Earth-facing deck and one each on the two previously deployed booms.

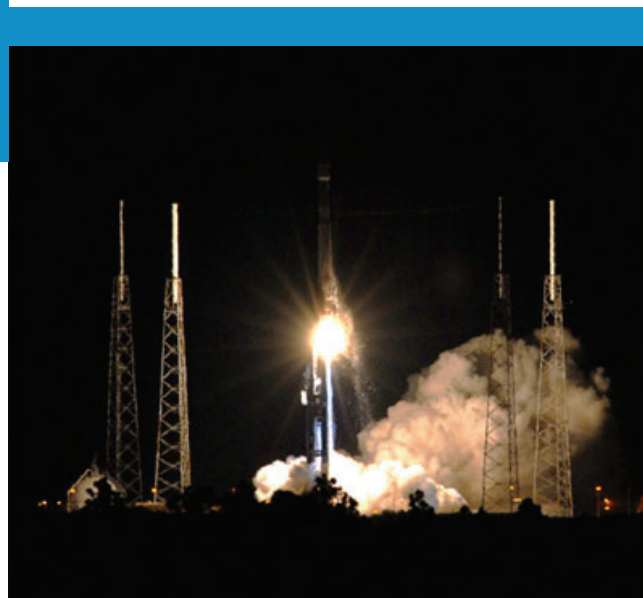
Surrey Satellite Technology, Ltd. of England built the small host satellite body, CFESat, in 27 months using heritage satellite designs from Surrey's disaster monitoring constellation and TopSat mission. In order to fit into the allowable launch volume, the satellite body measures a mere 24 by 24 by 38 inches and weighs 350 pounds.



SMART SATELLITE: From left, Diana Esch-Mosher, Steve Wallin, Charles Fite, Diane Roussel-Dupre (kneeling) and Daniel Seitz with the satellite before integration of the entire unit with the payload stack and the launch vehicle.

pathfinder mission for the NNSA's Office of Research and Development.

The satellite will operate with an orbital inclination that will allow observation of land areas as far north as the central United States and as far south as the tip of Africa. Once in orbit the spacecraft will deploy four solar panels, providing 110 watts of

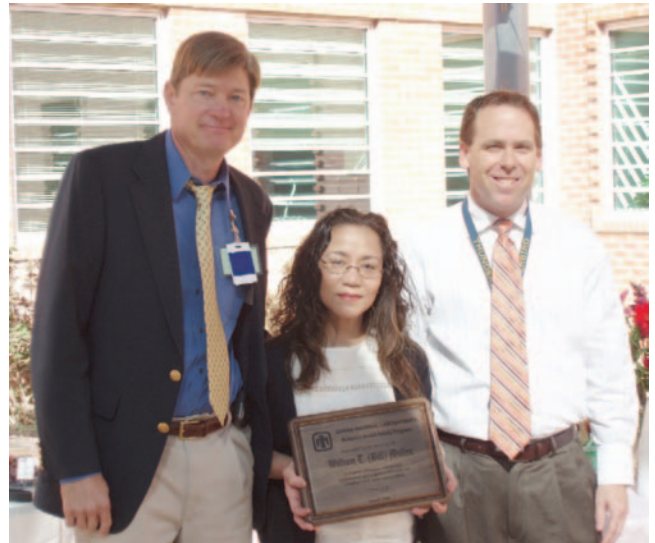


ATLAS ROCKET LIFTOFF: All satellite operations and data analysis will be conducted from a specialized ground tracking station located at Los Alamos.

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Sandia Site Office Commemorates A Former Colleague

A commemorative plaque to honor the workplace safety advocacy of Sandia Site Office staff member Bill Mullen, who died in 2004, was presented to his widow, Mariko Mullen, at a recent ceremony in Albuquerque, N.M. Mullen's work focused on the Behavior-Based Safety Program at Sandia National Laboratories, which supplements traditional safety efforts by engaging workers to be aware of safe behaviors and those that might place their fellow workers at risk of injury. Mullen was remembered by attendees at the ceremony as a trusted colleague, a dedicated professional, and a tireless advocate for creating a safe work environment. Pictured from left to right: Gary Schmidtke, Sandia Site Office; Mariko Mullen; and Roy Fitzgerald, Sandia National Laboratories.



Los Alamos Joins *VolunteerMatch* Network

As part of Los Alamos National Laboratory's commitment to increase its outreach to nearby New Mexico communities, the laboratory has joined *VolunteerMatch*, a network of nonprofit organizations that match people who want to volunteer with organizations that need them.

VolunteerMatch pairs nonprofits with volunteers. Its website has a searchable database that allows nonprofits to list volunteer opportunities and potential volunteers to find activities that interest them. Organizations in the database need to be nonprofit or tax exempt to list opportunities and can include civic, social, governmental, and educational institutions.

The laboratory is the first NNSA site to join *VolunteerMatch*. Membership allows nonprofits to register with *VolunteerMatch* at no cost.

"Employees across the laboratory already volunteer countless hours in communities around New Mexico," said Lillian Montoya-Rael of the Los Alamos Community Programs Office. "This program is exciting because it allows employees to manage their volunteer efforts as well as discover opportunities they may not have realized were out there."

VolunteerMatch allows employees to track when, where, and how often they volunteer, Montoya-Rael said. Laboratory employees can log their volunteers hours on the website, as well as organizations they are helping and how often.



Y-12 TECHNICAL QUALIFICATIONS: The Y-12 Site Office has become the first office in the Department of Energy to achieve Board accreditation of its Technical Qualification Program. The TQP helps to ensure the technical competency of NNSA employees responsible for providing assistance, guidance, direction, oversight, or evaluation of contractors in the operation of defense nuclear facilities. During a recent visit to Y-12, Marty Schoenbauer (right), principal assistant deputy administrator for operations, presented a plaque signed by Deputy Secretary Clay Sell to Ted Sherry (left), YSO manager, and Mark Sundie, YSO Training Program manager. Sundie was instrumental in the effort to achieve TQP accreditation for the Y-12 Site Office.