

Director of Homeland Security tours Nevada Test Site

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trained annually. With additional funding, that number could increase to 3,000.

Ridge's visit follows closely on the heels of U.S. Department of Energy Secretary Spencer Abraham's visit in January, where the secretary was provided with similar information about anti-terrorism training capabilities at the NTS.



photo by Mary Seodwell

Director of Homeland Defense Tom Ridge, flanked by Governor Kenny Guinn, left, and Senator Harry Reid, right, addresses media questions about the National Center for Combating Terrorism.

National Nuclear Security Administration scientists conduct successful subcritical experiment at Nevada Test Site

by Nancy Harkess

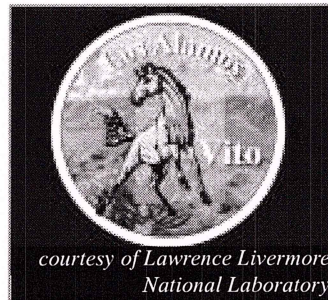
Scientists from the United States and Great Britain successfully conducted *Vito* on February 14 at the Nevada Test Site.

Seven scientists and engineers from the United Kingdom's Atomic Weapons Establishment participated in *Vito*. The British joined in the experiment under the terms of the 1958 Mutual Defense Agreement. A long-standing partnership exists between the United States and the United Kingdom at the Nevada Test Site. The two countries participated together in 24 underground nuclear weapons tests before full-scale nuclear testing was put on hold indefinitely in 1992. Los Alamos National Laboratory (LANL) has worked collaboratively with the United Kingdom since 1999 on *Vito* and will share scientific data from this experiment with British scientists.

"The scientific exchange of ideas and how we work compared to how they work helps both countries make advances," said the National Nuclear Security Administration Nevada Operations Office's Assistant Manager for National

Security and *Vito* test controller **Debbie Monette**.

"Each country can learn how to do work differently through the exchange of ideas. From this exchange, each scientific community may improve efficiencies or learn better ways to gather scientific data," said Monette.



courtesy of Lawrence Livermore National Laboratory

Information gathered contributes to both nations' stockpile stewardship programs. Subcritical experiments are an important tool in stockpile stewardship. Information gathered at the Nevada Test Site contributes to the overall safety and reliability of our nation's enduring stockpile.

Facts about the Office of Homeland Security: What you should know

- The Office of Homeland Security was established on October 8, 2001, as a national strategy to help protect the United States against terrorists' threats or attacks.
- Governor Tom Ridge of Pennsylvania is the first director of Homeland Security. He reports directly to the President concerning matters of national security and terrorism.
- The Office of Homeland Security is responsible for coordinating the executive branch's efforts to detect, prepare for, prevent, protect against, respond to, and recover from terrorist attacks in the United States.
- The office will ensure that all executive departments and agencies have the technological capabilities and resources to collect intelligence data relating to terrorist activities.
- The office is responsible for strengthening the protection of energy production, transmission and distribution; and for facilities that in any way handle nuclear material.
- The office is responsible for the protection of livestock, agriculture as well as potable water against terrorist attack.
- The office is responsible for the restoration of critical information systems disrupted by terrorist attack.
- The office is responsible for coordinating medical, financial and general assistance to victims of terrorist attacks.
- The office will coordinate the containment and removal of biological, chemical, radiological, explosive or hazardous materials after a terrorist attack.

If you would like to read more about the Office of Homeland Security and its responsibilities, visit their website (www.whitehouse.gov/homeland/).

The collaborative effort takes place in Nevada because of the existing infrastructure. The United Kingdom does not have the physical and diagnostic infrastructure that exists at the Nevada Test Site. Replicating the assets already in place at the Nevada Test Site in the United Kingdom would be expensive, time consuming, and nearly impossible.

"The United States will continue to work with the United Kingdom in regard to using Nevada Test Site facilities and support from the national laboratories," said Monette.

The *Vito* experiment was designed to answer questions about ejecta and spall associated with the physical properties of plutonium. Ejecta is a violent spray of particles that are propelled from a material's surface when it is compressed by a powerful shock wave. Spall is the breakup of material from the explosive

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Successful subcritical experiment at Nevada Test Site

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shock wave reflected back from the surface.

Vito is the first experiment in the STALLION series. STALLION has been defined as a series of experiments to support National Nuclear Security Administration pit manufacturing activities; to study dynamic properties of plutonium; to study the behavior of an unspecified pit; to compare the performance of cast versus wrought plutonium; and to compare the performance of new versus aged plutonium.

Vito was the nation's 16th such experiment since the subcritical program was launched July 2, 1997. Subcritical experi-

ments produce essential scientific data and technical information to maintain the safety and reliability of the nuclear weapons stockpile without underground nuclear testing. Data from such experiments helps scientists create computer models to chart the reliability of the nation's aging nuclear weapons stockpile.

Prior to *Vito*, the most recent U.S. subcritical experiment, *Oboe 7*, was conducted December 13, 2001, at the test site by scientists from Lawrence Livermore National Laboratory in California. Los Alamos scientists conducted their last subcritical experiment, *Thoroughbred*, on March 22, 2000.

Bechtel Nevada Six Sigma Black Belts graduate

by Nancy Tufano

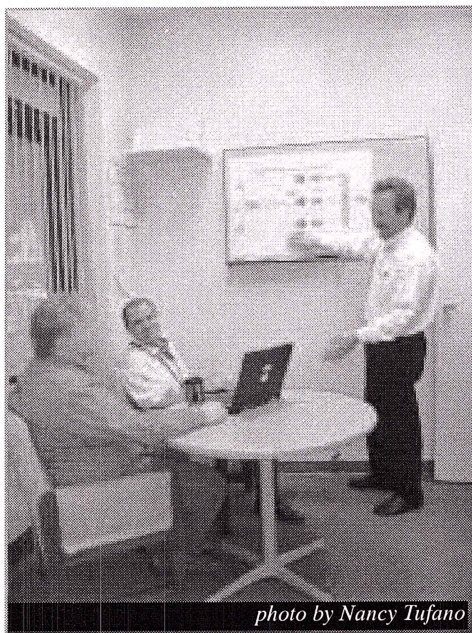


photo by Nancy Tufano

Trey Johnston, Craig Barnes, and Lew Gordon, black belts in Bechtel Nevada's Six Sigma program, discuss a Process Improvement Plan.

In February, three Bechtel Nevada employees were among the twenty-four Bechtel National, Inc. black belts to complete an extensive five-month training in the Six Sigma program. As part of the graduation ceremony, the new black belts presented streamlined cost savings. Black belts in training are tasked to measure, analyze, improve and control processes to result in greater customer satisfaction, substantial cost savings, and a reduction in labor.

During their training, the three Bechtel Nevada black belts redefined processes resulting a total cost savings of \$7,857,150.

The *Company Level Document Review and Approval Process*, presented by black belt **Craig Barnes**, examined the existing Bechtel Nevada document coordination and approval process. This assessment provided modifications to reduce the process from eight weeks to three weeks, resulting in a cost benefit of \$350,000.

In a joint effort between black belts **Trey Johnston** of Bechtel Nevada and Daniel McCabe of Bechtel Hanford, they presented the *Nevada Test Site/Hanford Site Waste Acceptance Process Improvement Project*. This assessment developed a framework for an improved, uniform, integrated low-level waste acceptance process for waste generators and disposals sites, capacity utilization, reduced storage costs, and potential complex-wide savings of more than \$7 million.

Black belt **Lew Gordon** presented the *Procurement Paperwork Rework*. This assessment revealed steps with little or no value to internal procurement paperwork for small item purchases. Gordon and his team analyzed inefficiencies in the process, created and enacted immediate changes, resulting in streamlined operations for Bechtel Nevada procurement department with a cost benefit of more than \$332,000 per year.

The Six Sigma program is an important efficiency and cost savings tool implemented by Bechtel Nevada and

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