

Atlas Pulse Ready to Beat

by Kirsten Kellogg

In a June ceremony at the Nevada Test Site, the Atlas pulse power machine was welcomed into a family of above-ground capabilities to support the NNSA Stockpile Stewardship Program. The dedication marked the end of a \$20.7 million effort to bring Atlas to the test site from LANL.

"Atlas is part of our effort to use means other than nuclear testing to answer questions about the conditions of our stockpile," said **Everet Beckner**, NNSA deputy administrator for defense programs. "The longer we go in time, the more we need tools like Atlas to solve the problems confronting our nation."

Atlas is designed to provide data needed for computer models used to validate the safety and reliability of the nation's nuclear stockpile. Atlas acts as a giant power amplifier, using energy that accumulates slowly and is stored in the machine's capacitor banks for sudden release into a target, usually a metal with similar properties to plutonium such as tungsten, copper, tin, steel or aluminum. As the electrical current surges through Atlas, it crushes the target at velocities nearly high enough to escape Earth's gravity – as high as 22,500 miles per hour – and generates pressures equivalent to millions of times that of Earth's atmosphere.

As compared to other physics experiments, Atlas can concentrate more total energy on larger (centimeter-scale) experimental targets for longer periods of time. The data from pulsed power experiments provides better physics models of material properties and implosion hydrodynamics.

Initially designed and constructed by LANL, the relocation of Atlas occurred over the last two years and involved over 400 workers from LANL, Bechtel Nevada and NNSA.



VIPs cut the red ribbon at the Atlas Dedication Ceremony. Pictured from left to right are former BN President and General Manager **Fred Tarantino**, LANL Associate Director for Weapons Physics **Dr. Susan Seestrom**, NNSA Nevada Site Office Manager **Kathy Carlson**, NNSA Deputy Administrator for Defense Programs **Everet Beckner**, NNSA Nevada Site Office Atlas Project Manager **Bob Golden**, LANL Atlas Project Manager **Christine Nelson**, Bechtel National, Inc. President of Energy and Environment **Craig Weaver**, and BN Atlas Project Manager **Gary Robinson**



The completed Atlas machine stands ready to play its part in the maintenance of the nation's nuclear stockpile.

"The people are the reason this machine ran successfully in Los Alamos and will now run successfully at the Nevada Test Site," said **Dr. Susan Seestrom**, LANL associate director for weapons physics. "They put their hearts and souls into making this day a reality."

With the addition of Atlas, the Nevada Test Site now provides three experimentation platforms for national laboratory scientists. Subcritical experiments began at the test site in 1997, and the JASPER two-stage gas gun fired its first successful plutonium shot in 2003.

Kellogg named new editor

by Kurt Arnold

Kirsten Kellogg is the new editor for *SiteLines*. Kellogg assumed the responsibilities as editor on June 1, 2004.

She joined Bechtel Nevada's Corporate Communications department as a public relations specialist on July 7, 2003. Prior to Bechtel Nevada, she worked at NNSA/NSO in the Office of Public Affairs. Following a communications department reorganization, duties within the department shifted. Kellogg was selected as the new editor.

Kellogg has the responsibility of publishing the monthly publication, *SiteLines*, for the NNSA/NSO complex employees, congressional delegates, retirees, and other stakeholders.

Send articles and article ideas to Kellogg at kelloek1@nv.doc.gov or mail them to her at the address listed on the back of this issue.



photo by Jennifer Morton

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SITE LINES

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A publication for all members of the NNSA/NSO family

Los Alamos scientists successfully conduct *Armando*

by Kirsten Kellogg

On Tuesday, May 25, scientists from LANL successfully conducted the *Armando* subcritical experiment at the Nevada Test Site.

"*Armando* was the most challenging subcritical experiment fielded by LANL to date," said **Chuck Costa**, LANL, test director. "Planning began in 1999, and the results exceeded all expectations. An integrated team of LANL, Sandia National Laboratories, and Bechtel Nevada staff executed the experiment, and early indications are that we have excellent data from all channels."

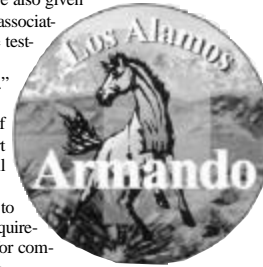
Subcritical experiments examine the behavior of plutonium as it is strongly shocked by forces produced by chemical high explosives. Subcritical experiments produce essential scientific data and technical information used to help maintain the safety and reliability of the nuclear weapons stockpile. The experiments are subcritical; that is, no critical mass is formed and no self-sustaining nuclear chain reaction can occur; thus, there is no nuclear explosion.

According to **Debbie Monette**, NNSA/NSO assistant manager for national security and *Armando* test controller, subcritical experiments contribute significantly to the overall certification of the nuclear weapons stockpile in the absence of testing. "We perform the functions, roles, and procedures for the subcriticals that we would use should testing ever

resume," she said. "These experiments have also given us the opportunity to implement measures associated with 10 CFR 830 nuclear safety into the testing procedures. This approach is saving us time and effort in our test readiness project."

A nuclear safety requirement, Chapter 10 of the Code of Federal Regulations (CFR) part 830 (10 CFR 830) became effective in April 2003, and all subcritical experiments are

bound to this requirement for compliance.



Armando, the 21st subcritical experiment conducted at the Nevada Test Site, was conducted in the U1a Complex located 85 miles northwest of Las Vegas. The U1a Complex is designed to contain these experiments in a safe and secure environment in an underground laboratory of horizontal tunnels with small excavated experiment alcoves mined at the base of a vertical shaft, approximately 960 feet beneath the surface.

Los Alamos scientists conducted their last subcritical experiment, *Rocco*, on September 26, 2002. The last subcritical experiment conducted was *Piano*, by Lawrence Livermore National Laboratory, on September 19, 2003.



photo courtesy of Los Alamos National Laboratory

The *Armando* containment vessel is made of half-inch thick high-strength steel and measures about three feet in diameter.

VISAR team wins BN Science and Engineering Award

by La Tomya R. Glass

A four-member team preparing the National Ignition Facility's (NIF) Velocity Interferometer System for Any Reflector (VISAR) for fielding in fiscal year 2004 was honored with the second annual BN Science and Engineering Award. The team consists of Los Alamos Operations senior engineers **Phillip Watts**, **Robert Malone** and **Morris Kaufman** and Special Technologies Laboratory's Principal Scientist **Gene Capelle**.

According to **Stuart Rawlinson**, chairman of the award's selection committee, the process of selecting finalists and then a winner was difficult because of the steep competition. In the end, the VISAR team topped the list based on all criteria used to judge the accomplishments: contribution of knowledge, innovation, process efficiency, technical complexity, and application.

"The accomplishment becomes more impressive given that the team completely redesigned the system and addressed many new technical requirements, all in less than six months," Rawlinson said.

The NIF at Lawrence Livermore National Laboratory is housed in a football stadium-sized building where up to 192 laser beams deliver ultraviolet laser light to millimeter-sized targets. The tremendous energy available in NIF can produce conditions of extreme temperature and pressure, similar to those that occur in stars and in exploding nuclear weapons. The VISAR will operate as the primary diagnostic for timing the shock and measuring the velocity of a moving surface, recording its Doppler wavelength shift induced within the NIF. Linton Brooks, NNSA administrator, said the NIF is becoming one of the jewels of NNSA and the nuclear weapons complex.

The BN Science and Engineering Award was created to recognize the technical expertise that is at the heart of the company's continued success. It acknowledges an outstanding single achievement in a given year based on the potential impact of the achievement to the fields of science or engineering.

The selection committee for the second annual BN Science and Engineering Award selected two finalists from five nominated achievements. Presentations by the finalists provided them an opportunity to describe their achievements and for the selection committee to pose questions against the criteria and technical aspects of the achievements. Information regarding the fiscal year 2004 award is scheduled for distribution in October 2004.



photo courtesy of Robert Malone

Morris Kaufman trial fits the large L1 triplet lens on the VISAR.

Face-to-Face



Name: Carolyn Kafantaris
 Company: NNSA Nevada Site Office
 Job Title: Weapons of Mass Destruction First Responder Training Program Manager
 Hometown: Koontz Lake, Indiana
 Hobbies/
 Interests: Enjoy the outdoors: swimming, beaches, amusement parks, etc., and enjoy playing with my son

Key to Acronyms

The following acronyms appear frequently in *SiteLines*:

BEEF	Big Explosives Experiment Facility	NSO	Nevada Site Office
BN	Bechtel Nevada	NTS	Nevada Test Site
DAF	Device Assembly Facility	PIP	Process Improvement Project
EM	Emergency Management	RSL-A	Remote Sensing Laboratory - Andrews
EM	Environmental Management	RSL-N	Remote Sensing Laboratory - Nellis
ES&H	Environment, Safety, and Health	SC	Service Center
JASPER	Joint Actinide Shock Physics Experimental Research (gas gun)	SCE	Subcritical Experiment
LANL	Los Alamos National Laboratory	SNJV	Stoller-Navarro Joint Venture
		SNL	Sandia National Laboratories
		STL	Special Technologies Laboratory
		WSI-NV	Wackenhut Services Incorporated - Nevada

This feature highlights various components of the Six Sigma process at the National Nuclear Security Administration Nevada Site Office complex. A monthly article will detail the Six Sigma process, individual PIPs, the team members associated with Six Sigma, or the anticipated benefits and cost savings associated with implementing the PIPs.

The \$411,000 Six Sigma Success Story

by Dennis Dugan

A group of BN employees from RSL-N Nuclear Technologies Section and the Crisis Response Project recognized the need for an efficient method of fabricating and delivering "Infield" handheld radiation search detectors. By incorporating the Six Sigma principles, the team was able to deliver the Infields ahead of schedule while saving \$411,000. BN is teaming with the NNSA/NSO customers to use the savings to fund other work.

Six Sigma Champions **Dennis Dugan** and **Sheldon Freid** assembled a team consisting of **Asa (Von) Sudderth**, **Harry Bostick**, **Stan Roeske**, **John Aadland**, and **Lee Rogers**. Under the leadership of the Crisis Response team's Yellow Belt **Dean Dennis**, the team focused on reducing the costs of poor quality using the Six Sigma tools to measure the current process, analyze that process and then make improvements.

Significant improvements in the fabrication of the electrical wiring harness, computer boards and other components reduced the mean labor hours from more than 71 to fewer than 44 per unit.

Following the Process Improvement Plan, the process entered the control phase where the continuous manufacturing data was analyzed resulting in the determination that the improved process was fully capable.

Nevada Counties to Receive DOE Grant

by Michelle Meade

The DOE Grant Assistance Program was initiated to assist six Nevada Counties impacted by the rerouting of low-level waste out of the Las Vegas Valley. In its fourth year now, the program will distribute an estimated \$2.3 million to these counties in fiscal year (FY) 2004. To date, the total amount granted to the counties approaches \$7 million.

The funding, administered by the Nevada Division of Emergency Management, is based on a waste generator fee of \$0.50 per cubic foot of waste disposed at the Nevada

Test Site and is awarded annually to the counties of Clark, Elko, Esmeralda, Lincoln, Nye, and White Pine.

The remainder of funds allocated for FY 2003, approximately \$320,000, was distributed in April 2004 along with the initial FY 2004 allotment of \$905,000. The emergency expenditures for the six counties will go toward: enhanced communication tools, salaries, training, personal protective equipment, ambulances, fire trucks, squad cars, rescue equipment, and computer equipment, etc.

An Emergency Preparedness Working Group reviewed the proposed FY 2004 distribution; the final approval of the grant is awaiting the development of a new agreement between DOE and the State of Nevada. The DOE's Environmental Management division will continue to fund the grants to the counties for emergency preparedness through FY 2007.

News Briefs

Bechtel Nevada scientist develops Geiger counter for pets

Most cities and states maintain plans to keep families safe in the event of a nuclear accident. Thanks to **Dr. Craig Marianno**, a Bechtel Nevada senior scientist, those plans can now include family pets.

Marianno developed a new animal portal monitor that can scan caged pets for radioactive contamination without workers having to touch them. Cages slide into the short, open-ended box structure that resembles a kennel. The pet monitor measures normal background radiation and can detect in a maximum of 10 seconds whether a pet – or any other object placed inside it – reads at a rate higher than the background.

"I think we're in a time that the pet is no longer just an animal," said Marianno. "In some cases, it is a cherished family member."

A single monitor costs about \$10,000 to build and is expandable to fit over animal chutes to scan livestock. It could also be adapted to work with other types of radiation detection equipment.

The only alternative pet scanning method requires rescue workers to hold pets while passing a hand-held survey instrument entirely around animals' bodies. Each time workers handle contaminated pets they must change their anti-contamination gear to prevent cross-contamination of other animals. As an added safeguard, workers undergo monitoring after each animal they monitor.

Marianno's new pet-scanning monitor was demonstrated as part of the state of Minnesota's full-scale nuclear preparedness exercise from June 14-16, 2004, in which an entire pet decontamination and monitoring program was pioneered. Ten animals were run through the portal monitor, and the equipment performed as expected.



photo courtesy of Dr. Craig Marianno

Dr. Craig Marianno's animal portal monitor fits easily over a cage to scan pets for radioactive contamination.



photo courtesy of the Desert Research Institute

Lockheed Martin Nevada Technologies, Inc. recently donated \$100,000 to the Nevada Test Site Historical Foundation for exhibit fabrication at the Atomic Testing Museum. **Troy Wade** (left of center), president of the Nevada Test Site Historical Foundation, accepts the donation from **Jim Powell** (right of center), president of Lockheed Martin Nevada Technologies and Bechtel Nevada acting general manager. Also representing Lockheed Martin are (from left to right) **Nelson Cochrane**, **Susan Gardner**, **Al Will**, **Rick Lamison**, **Marijo Myers**, and **Paul Raglin**. This is the second \$100,000 donation to the museum from Lockheed Martin and was made in conjunction with a lecture and book signing by **Thomas C. Reed**, former Secretary of the Air Force.

BN Management Update

Several management changes occurred recently at BN. President and General Manager **Fred Tarantino** accepted a position with Los Alamos National Laboratory, and **Jim Powell** has been named acting general manager.

Following a brief absence, **Brian Sheridan** will return to BN as the principal deputy general manager effective Monday, July 19, 2004.

Roger Flanagan was named Remote Sensing Laboratory operations manager, replacing **Alan Will** who has been acting in the position for the past year.

Consumer Advisory: 15-Passenger Vans

The following information was taken from a U.S. Department of Transportation news release dated Tuesday, June 1, 2004.



The National Highway Traffic Safety Administration (NHTSA) reissued a cautionary warning on June 1 to users of 15-passenger vans because of an increased rollover risk under certain conditions. Similar warnings were issued in 2001 and 2002.

NHTSA research conducted in 2001 and 2004 has shown that 15-passenger vans have a rollover risk that is similar to other light trucks and vans when carrying a few passengers. However, the risk of rollover increases dramatically as the number of occupants increases to full capacity.

A new NHTSA analysis reinforces the value of safety belts. Seventy-six percent of those who died nationwide in single vehicle 15-passenger van crashes from 1990 to 2002 were not buckled up. The odds of being killed in a single vehicle crash involving a 15-passenger van increases three-fold if the occupants are not wearing safety belts.

NHTSA is reissuing this advisory to specifically alert summertime users of 15-passenger vans. Last summer, there were several tragic rollover crashes involving groups on trips.

A copy of the three new NHTSA research reports on 15-passenger vans along with other related information can be found at www.nhtsa.dot.gov/cars/problems/studies/15PassVans/15PassConsumerAdvisory.htm

Beyond the call



WSI-NV presents ABCD awards

by Sheril Hamlin

Above and Beyond the Call of Duty (ABCD) awards are presented to WSI-NV employees to acknowledge and encourage outstanding performance and contributions to the organization. The following WSI-NV employees have recently received ABCD awards:

Luci Fila was presented an ABCD award for her recommendations leading to a new lock and key control procedure for the North Las Vegas facilities. As a result of Luci's suggestions, thousands in cost savings will be realized annually.

Patrice Ross received an ABCD award for her outstanding enthusiasm and efforts in preparing for a recent job fair.

Sergeant Dave Duff received an ABCD award for his outstanding contributions to the success of *Armando*. Dave clearly went Above and Beyond the Call of Duty ensuring

lines of communication remained open while keeping the spirit of teamwork at the forefront throughout the project.

Adrienne Anderton received an ABCD Award for her initiative and willingness to step up to the plate, in a time of need, and assume more responsibility ensuring customers continued to receive the high level of performance and service they have come to expect from the Electronics Systems Section.

An ABCD Award was presented to **Jeff Gray** for his dedication and assistance in reducing the maintenance backlog within the Electronics Systems Section. Jeff also recognized a problem with some equipment, and after discussing the issue with the vendor, arranged for the equipment to be relocated so that it would be properly maintained.

Lori Plummer's planning, implementation and oversight of all safety aspects of a recent Force-on-Force training activity was clearly Above and Beyond the Call of Duty. In recognition of Lori's outstanding dedication to the safety program and the welfare of her co-workers, she was given an ABCD Award.

Tarantino presents Performance Awards

At his recent all-hands meetings, former BN president and general manager, **Fred Tarantino**, presented Performance Awards to employees.

Performance Awards are presented twice a year to recognize individual employees and teams that demonstrate significant technical and/or operational performance that is above and beyond expected levels. Examples of outstanding accomplishments worthy of recognition under this program include safety, significant cost savings, innovation, quality improvement of a process or product, resource utilization improvement, environment, safety and health improvement activity, or added value of the customer. A committee, consisting of employees, reviews all entries and systematically selects the winners.

This period's winners were:

4-View Tomographic Imaging Diagnostic Team

Carl Carlson, Dan Frayer, Mandy Hutchins, Doug Johnson, Morris Kaufman, Al Meidinger, Scott Myers, and Aric Tibbitts

The 4-View Tomographic Imaging Diagnostic Team successfully developed an imaging diagnostic tool that is proving to be a highly valuable system with far-reaching capabilities for stockpile stewardship. This tool's effectiveness and utility are just being realized due to the quality and effort these individuals have put forward. Many of the results have already been presented at conferences and published in multiple articles. These efforts have highly impressed the LANL customer as this system also provided exceptional value via multiple design elements such as remote operation and providing the user with real time images so decisions can be made quickly to correct problems.

BN Cygnus Implementation Team

Ben Anderson, Scott Burns, Phil Carr, Tom Helvin, David Henderson, John Kiser, Vance Mitton, Naomi Munyan, and Ronnie Owens

The BN Cygnus Implementation Team provided excellent support beyond the call of duty, and in due part, resulted in a state-of-the-art operational dual axis radiographic source integrated at U1a. Cygnus is a major technological and logistical success. The major milestones have been met, and the dual axis pulsed power radiographic source was prepared for participation on the Armando subcritical experiment. BN is now positioned to proceed with further NTS Radiography projects.

Dane Morgan

Dane is a key member of the Atlas X-ray Radiography Team. He has provided a design for the Transverse (Radial) Radiography Film Cassette Holder Assembly, helping BN to be successful in fielding upcoming Atlas experiments. He also had another idea to use "throw away" sorption pumps cooled with liquid nitrogen in conjunction with a roughing pump to pull a vacuum in the liner/target assembly. This approach is simple, cheap and solves the vacuum requirement. He is also a key member of the BN Supersaver portable X-ray design team, leading to significant improvements in the design.

James Essex

BN is tasked by NNSA/NSO with the coordination and establishment of the Federal Radiological Monitoring and Assessment Center (FRMAC), a collection of 17 Federal agencies, state decision makers and local responders during a radiological/nuclear event. Up to this point, collected data was distributed to vital members via hardcopy or through e-mail. During field exercises, this was a time consuming and error-ridden process. James developed a database driven web site that would help the FRMAC manage data, increase security and allow for maximum use of staff. He worked tirelessly on this project, facing many challenges along the way. In March 2004 during a full field exercise, the FRMAC Web site was used in real time with great success. This asset provided added value to the customer because it is adaptable and flexible, meeting the changing demands of the FRMAC.

Kristine Jensen

Kristine's participation in the planning process for the Research, Development, Test and Evaluation (RDT&E) Center being built at BN STL was instrumental in the success of the project. Starting out as simply the liaison between STL and the National Center for Combating Terrorism, she quickly grew into the lead role in the design of the buildings and laboratories. She learned many new skills, helping her adapt to the many changes in the budget and the scope of the construction. Kristine was instrumental in sorting through the strict regulatory requirements, and relaying those to the technical teams. This helped in simplifying the design and decreasing costs.

Mike Grover

In March, the STL supported the LANL in the execution of a series of experiments

cont. on page 5

Tarantino presents Performance Awards

cont. from page 4

designed to determine the effect of surface finish on the radiance measured from the free surface of shocked metal. Mike's efficient and focused efforts allowed for 23 explosive experiments instead of the 12 included in the scope of work. These were all accomplished within budget and on schedule adding 100 percent more value to the work at no cost. Mike had to design and build a "package" within a day that would meet the customer's unique needs. He also insured that all participants adhered to strict safety standards, allowing for an incident-free experimental campaign. The customer applauded Mike's effort stating "Mike worked harder than any of us to make these experiments happen."



NIF VISAR Fielding Team

Morris Kaufman, Bob Malone, and Phillip Watts
(Gene Capelle was also part of the team but not eligible because of salary grade)

This team sustained high level performance above and beyond expectations on BN's National Ignition Facility (NIF) VISAR (Velocity Interferometer System for Any Reflector) Project. This effort brings to fruition the outstanding design complex diagnostic that integrated BN expertise in optics design, opto-mechanical design and engineering, laser development and electrical engineering. The VISAR system was designed to generate cost savings for the customer by reducing operational costs for a very complex diagnostic.

Spire II Team

John Buckley, Jim Buford, Les Drake, Brian Maddux, Matt Streeton, and Howard Wong

Answering a need to increase the U.S. Government's capability to collect information to combat terrorism, the Spire II Team delivered 30 systems with performance that exceeded the very difficult customer requirements. This project was completed two weeks ahead of schedule, resulting in additional fees for BN. The complex innovation as well as additional system features which added value, which was not required by the statement of work, resulted in an extremely satisfied customer. This system was demonstrated to officials at the highest level of the agency, and the Spire II team has already been awarded a contract to develop the next generation of this system.

Stallion II

Ken Alvey, Stuart Baker, Dale Crain, Mark Fiscus, Russ Howe, Adam Iverson, Trent Otteson, and Lane Trammell
(Steve Lutz and John Pittman were also part of the team but not eligible because of salary grade)

The Stallion II experiment was successfully executed at the Atomic Weapons Establishment (AWE) in Aldermaston, England on December 10, 2003. The diagnostic effort of team members combined to produce 100 percent data return for the experiment, including the recording of two high-fidelity dynamic radiographic images and other data recorded. AWE and LANL colleagues were thrilled with the images collected successfully by the BN team along with the detail and scope of the BN team documentation.

F. Scot Tibbits

F. Scot Tibbits received an award for innovative methods in the development and application of a Fiber-Optically coupled Switch Sequence Illumination (FOSSIL) diagnostic for Marx Bank performance investigations. The FOSSIL diagnostic system has recently been applied to the 30-stage Compact Marx Bank (CMB) at LLNL and has produced rave reviews and e-mails of commendation from the LLNL principle researcher. An estimate of the dollar savings for this occurrence has been placed in the \$50,000 - \$70,000 range. However, its future value as a diagnostic leading to the successful development and operation of CMB on future subcritical and other experiments is nearly impossible to estimate.

Phototube Development Team

Mary Karrick, Don Max, Rosa Perez, Al Shellman, and Gabe Torres

The Livermore Operations Team is the only organization in the world that makes 75 millimeter Image Intensifiers due to the complexity and difficulties in producing them. The team made significant quality improvements resulting in three successful tubes without any rejects in fiscal year 2004 and are the best devices built since the conception of this program over ten years ago. The significant strides in process improvement are ultimately leading up to substantial cost savings as well as delivery of a superior product.

Donna Whitehead

On July 1, 2003, BN assumed responsibilities for the operation of the NTS Site Operations Center (SOC), and BN was tasked with assuming all responsibilities for NTS airspace management. Additionally, the Nellis Air Force Base Range Wing asked that the SOC become actively involved in the Nellis Range airspace scheduling effort. Donna Whitehead volunteered to be the SOC long-range planning coordinator and working under severe security restraints was to develop procedures that would allow joint utilization of NTS airspace. As a direct result of Donna's input, the Nellis Range schedule now integrates NTS airspace seamlessly and all NTS airspace users are now able to utilize NTS airspace to its maximum capacity. This has led to an increase in safety and a decrease in unproductive man-hours and money.

Mark Krauss

For the purpose of shipping transuranic waste from the Nevada Test Site to the Waste Isolation Pilot Plant Facility in New Mexico, Bechtel Nevada Engineering proposed constructing a pad on the existing transuranic pad. Mark Krauss proposed an alternative, much simpler design that is just as effective, required far less construction, and did not block access to Area 5 for low-level waste deliveries. The cost savings in construction and reduced impact on low-level waste operations was \$306,782. This alternative was placed into operation in early 2004 resulting in the safe disposal of the waste and improving the safety of the waste disposal operation.

Mark Shaw and Dean Yeager

Through their efforts and initiative in continuously pursuing opportunities to reduce the ever-increasing costs incurred at the BN Duplicating Facilities, these two Administrative Resources Department (ARD) employees achieved an annual savings of approximately \$18,000. They recognized the need to reduce costs at the Duplicating Facilities while sustaining or increasing work production and took the initiative to research various opportunities. Their dedication and commitment to their jobs resulted in this annual savings.

Second Line of Defense Van Support Team

Wayne Bearden, Sr., Bert Cochran, Linda Hansen, James Helvie, Jr., Hilda Hernandez, Jon Leander, Jerry Lester, William Leyrer, Rashelle Mahan, Shawn Muehlbauer, Keith Roesner, Terry Smith, Kevin Thomas, and William Wright

DOE assigned BN the task of providing a broad range of support to the NNSA's Office of International Material Protection and Cooperation, Second Line of Defense, Van Support Project. This support includes activities in various European and Asian countries to provide maintenance and repairs to x-ray systems, associated generators, and radiation detection units. The NA-25 office turned to BN to address these problems, manage the operations, and perform several major maintenance efforts. These highly skilled and qualified personnel were deployed to 18 countries to provide onsite maintenance and repairs. The team members met and exceeded their work requirements during a heightened risk to their personal safety while facing a higher risk of street crime and terrorist attack.

Soprano Production Team

Todd Emmitt and Patrick Whitely

Todd and Patrick demonstrated outstanding performance in the areas of quality improvement of the product and value added to the customer during the Soprano Production Project. They delivered upgraded Soprano units to the customer nearly two months ahead of schedule and have high customer satisfaction about the substantial increase in quality of the production devices as compared to the prototype devices. They demonstrated the ability to work multiple tasks simultaneously and improve the quality of the final product by introducing new ideas of their own.

Face-to-Face



Name: Jason Smylie
Employer: Bechtel Nevada
Title: Software Specialist
Hometown: Los Angeles, CA
Hobbies/
Interests: Playing guitar, snowboarding, listening to music, investing, movies, nice restaurants

Face-to-Face



Name: Rochelle Turner
Company: Wackenhut Services, Inc. - Nevada
Job Title: Senior Administrative Clerk
Hometown: Las Vegas, Nevada
Hobbies/
Interests: Reading, fishing, cooking, doing different types of puzzles, and working on the computer

Stoller-Navarro Joint Venture helping local environment

by Rosemary Rehfeldt

May Day...May Day...for the Environment, that is! On May 1, 2004, the Stoller-Navarro Association for People (SNAP) teamed up with the American Evergreen Foundation (AEF) to plant trees along the Las Vegas Wash. The event, May Day for the Environment, turned out to be a huge success. Approximately 30 employees and 10 of their family members volunteered their time to help preserve the Las Vegas Wash and enhance our environment.

The AEF worked in conjunction with the Las Vegas Wash Coordination Committee to facilitate SNAP's May Day for the Environment event. Working side-by-side with representatives from the AEF, SNAP volunteers planted a total of 498 trees along the wash. After all the hard work, the AEF and SNJV supplied lunch for all participants.

The Las Vegas Wash is the final link in the Las Vegas Valley's water supply. It carries the valley's excess water – an average of more than 150 million gallons per day – to Lake Mead. Therefore, keeping this water clean is important. The Las Vegas Wash spans 12 miles, beginning in the southeastern part of the valley and continuing to Lake Mead.

The AEF is a nonpolitical organization that focuses on environmental and conservation education, as well as bringing people and communities together in positive "Conservation Through Participation" grassroots projects. These projects range from re-vegetation to habitat improvements, fire prevention, conservation education, and water and soil erosion management programs.

Bringing people of all ages together to learn about their local environment through participation is what the AEF is all about. To this end, SNAP plans to work with this organization on an annual basis to help implement and maintain important conserva-

tion projects.

Volunteering, and working with the AEF, became a rewarding experience for all involved. Taking time to preserve and enhance our environment in a community setting can be easy through SNJV's employee association – just ask any one of the volunteers, and they'll tell you... "it's a SNAP!"



photo by Jeanne Wightman

An AEF employee assists two young children planting trees. The children are family members of a SNAP employee volunteer.

Bechtel Nevada employees spread early holiday cheer

by Kurt Arnold

For several Bechtel Nevada employees, the holiday season seems to begin early each year. Employees have been spotted bestowing selfless acts of giving and spreading good cheer and goodwill during the month of April.

Each April, Bechtel Nevada employees volunteer to help an "adoptive neighbor" make needed repairs to their home. These neighbors are often low income, elderly, or disabled homeowners who are unable to keep up with repairs or afford to fix minor problems. Unfortunately, these minor problems often escalate into ones that the owner cannot repair themselves.

Through the non-profit organization, Rebuilding Together with Christmas in April, companies, groups, and individuals donate their time and talents to help homeowners with these minor and significant repairs. Bechtel Nevada made a generous contribution to Christmas in April, which enabled the company to adopt a homeowner. Company funds also provided volunteers with water, sodas, coffee, lunch, and additional materials and supplies during the several weeks of work.

Janiesta Booker, a retired seamstress, was selected as this year's "adoptive neighbor." Although her North Las Vegas home's interior needed minor work, her home's exterior and yards commanded the majority of volunteers' time. After several weeks of hard work and commitment, volunteers transformed Janiesta's water and sun-damaged siding home with a water-starved lawn into a beautiful desert oasis. Janiesta will also receive a brand new gas stove compliments of Bechtel Nevada.

"I want to thank all the volunteers for their hard work on this project," said **Raymond Nichols**, Bechtel Nevada's house captain. "It was a pleasure to work with dedicated people on a great project and for an appreciative homeowner," Nichols added.

Through the generous donation of their time and hard work, Bechtel Nevada employees gave homeowner, Janiesta Booker, an early Christmas gift.

Kurt Arnold (Team Coordinator); **George Baca**; **Brenda Carter** (Home Ambassador) and her cousin **Diamond Graham**; **Dennis Finney** and his wife **Cheryl Rodriguez**; **Aaron Fisher**; **Donald Foster**; **Gary Gardner**; **Jon Gilleres**; **La Tonya Glass**; **John Kitt**, his daughter **Raina**, and friends **Frances Makabenta** and **Sarah Ricciardi**; **Gabriel Kline** and his son **Gabriel**; **George Kline Jr.**; **Darlene Liuska**; **Francisco Loza**; **Ken Machynia**; **Tommy Joe Morrissey**, **William Nicholas**, **Raymond Nichols** (House Captain) and his son **David**; **Craig Ochs** and his wife **Evelyn**; **Dan Phelan** and his wife **Betty**; **Ralph Somers**; **Hugh Spilsbury**; **W.B. Sutherland**, **Cathi** and **Lou Tharin**, daughter **Marina**, and friend **Bianca Carreira**; **Cle Threats**; **Denise Wieland**; **Arthur Williams**; **Dimitrois Williams**; **John D. Williams**; and **Tracy Wilson**.

A special thanks to **Charles Evans**, owner of **Evans Trucking**, for his generous donation of 10 tons of rock and for providing trucking service. Without his donation, Janiesta's yard work would not have been possible.



photo by Kurt Arnold

The exterior of Janiesta Booker's home before Bechtel Nevada employees made repairs during the annual Christmas in April program.



photo by Kurt Arnold

A home with water and sun-damaged siding, peeling paint, and a water-starved lawn are replaced with new siding, a fresh coat of paint, and desert-landscaping.

In the Next Issue of SiteLines ...

- New NCCT facilities at the Nevada Test Site
- Heat stress
- E-mentoring program wrap-up

Rebuilding Together with Christmas in April – Pahrump Valley

Bechtel Nevada employees recently joined community volunteers for the 2004 campaign of Christmas in April – Pahrump Valley. This year, for the first time in their charter, the Pahrump Valley chapter refurbished two homes instead of only one.

The selected homeowners were Marla Wythe, divorced, age 66 and Frances Keenan, a widow, age 64. Both were in dire need of assistance.

Marla's house was the more difficult of the two. The first task was to have the home re-leveled. After re-leveling, many of the doors in the house would not close so these were re-hung. Next, her roof-mounted air conditioner, which was sinking into the roof, had to be moved to a location over her carport where sufficient bracing was available to support it. The move required additional ductwork to be installed and new power run to it. Following the move of the air conditioner, it was time to tackle the severely damaged roof. False rafters were constructed over the existing roof to re-establish a pitch and to eliminate areas that had sagged, and a new roof was then applied to the home. Damage to the ceilings in the utility room, kitchen, dining room, and enclosed patio required removing the damaged dry wall, replacing it, mud and taping, texturing, and painting. A wall in the dining room was also repaired. The linoleum tile in the utility room and kitchen was replaced, and half the floor in one of the bathrooms had to be ripped out, rebuilt, and covered. Some plumbing work was done in both bathrooms, and lights were replaced, rewired, removed, etc. The majority of the interior and the entire exterior were painted, including the shed.

Frances' home is a single wide, metal sided, 1960s style trailer. It was all she could afford to buy with the insurance money she received when her home was completely lost in a fire. After an inspection of the wiring in the trailer, it was found that Frances was in danger of also losing this trailer to fire. Everything needed to be replaced from the meter box to her fuse box inside the trailer; this included a service to her garage. A new meter box was installed, wiring pulled into the trailer, and safe terminations made. The front and back doors, which would not close, were reframed, re-hung, and weather-stripped. There was no air conditioning so a window-mounted unit was procured and installed. There was no heat in the home so heaters were also procured and installed. Next, porches were built at both the front and back doors, and new porch lights were installed. The leaking roof was fixed, the exterior of the home was painted, and through outside donations, Frances was given patio furniture, living room tables, an entertainment center, and a VCR.

"Once again the support of Bechtel Nevada and their employees, along with Bechtel SAIC, local volunteerism, and community support made this year's project unparalleled," said **Rick Remington** Bechtel Nevada employee and board president of the Pahrump Valley chapter. "I would like to personally thank Bill Sinclair and his group from Bechtel SAIC for providing the extra support needed to make this a successful project."

Bechtel Nevada volunteers for this year's projects included: **Mark Andresen, Robert DeMonte, Gary Gardner, Paul Hudson, Dave Johnson, Marshall Laub, Darla and Rex Livingston** and their daughters **Brianne and Lisa** (also a BN employee); **Kurt**

Martinez, C. Jimmy May; Kelly Murphy; Rick Remington and his wife Terry; **Scott Tibbits; Brad Van Cleave;** and **Sharon Wehrly** and her son George.

Community volunteers included: Carol Betts; Susan Grey; Louise Healey; Scott Howard; Catherine Longhouser; Ray Mariano; Byron Newman; Erma and Brian Phillips; Jessica and Jess Shanholtz; Bill Sinclair; Pete Vavricka; Susan and Michael Voegel; and Pat and Curtis Watson.

The Christmas in April – Pahrump Valley chapter is an accredited non-profit organization with the United Way of Pioneer Territory.



photo by Pat Watson

The exterior of Frances Keenan's home before repairs were made.



photo by Pat Watson

An outstanding transformation – Keenan's home with a new air conditioner, a front porch, and a fresh coat of paint.

Partnering for Education



Teacher Appreciation Week

by La Tomya R. Glass

I have come to believe that a great teacher is a great artist and that there are as few as there are any other great artists. Teaching might even be the greatest of the arts since the medium is the human mind and spirit...—John Steinbeck

The first week in May was set aside to celebrate teachers who not only teach writing, reading and arithmetic, but inspire and encourage others to pursue their goals. Bechtel Nevada showed their appreciation to dedicated teachers by providing a breakfast and lunch to Focus School partners, Kit Carson Elementary School and Jim Bridger Junior High School.

During the school year, Bechtel Nevada employees donated school supplies for students and volunteered as readers during Nevada Reading Week. Bechtel Nevada also donated about \$11,000 to each school's library and established the principal's emergency fund to assist special needs students identified by the school's principal and staff.

Kit Carson Elementary School Principal **Linda Gipson** said, "We appreciated the reading volunteers and donations which helped make this year a success."

The donation and volunteers were made possible through the Clark County School District's Focus School Project. Designed to provide opportunities, the project is for students to understand how the basic skills they learn in school apply to the business world and the community. It also gives the business community insight into the workings of the school and education system. Clark County matches schools with businesses to bring resources directly to the classrooms.

This year, Bechtel Nevada once again supported Kit Carson Elementary School (kindergarten through fifth grade) and Jim Bridger Junior High School (sixth through eighth grade).

Wackenhut Services, Inc. partnered with Quannah McCall Elementary School (kindergarten through fifth grade) providing volunteers, donating school supplies, and food baskets to families in need.

End of the year activities at Quannah McCall

by Sheril Hamlin

Quannah McCall Elementary School held their annual Field Day in May, and once again, the employees of WSI-NV descended on the school to lend a helping hand. The children spent several hours in fierce competition against one another, while getting some much-needed exercise. Volunteers for Field Day included Gloria Sandoval, Kathie Nangle, Gabrielle Davenport, Marcella Annear, Luci Fila, and Sheril Hamlin.

WSI also conducted a clothing drive for the school recently. Plenty of socks, T-shirts, sweats, and shoe gift cards were provided to ensure the children were properly attired for the end of the school year. Thanks to the generosity of employees, Quannah McCall will also have a large stockpile when school resumes in the fall.

See you next school year!



Fun in the sun

by La Tomya R. Glass

As the weather gets warmer our thoughts turn to picnics, barbecues, pool parties, and even yard work. But, have you thought of the consequences of over exposure to the sun?



The American Cancer Society estimates that during 2004, about one million new cases of skin cancer will be diagnosed. It is also expected that skin cancer will claim the lives of approximately 9,800 Americans.

Exposure to the sun's ultraviolet (UV) rays appears to be the most important environmental factor involved in the development of skin cancer. When used consistently, sun-protective practices can prevent skin cancer. UV rays from artificial sources of light, such as tanning beds and sunlamps, are as dangerous as those from the sun and should also be avoided. Although both tanning and burning can increase a person's risk for skin cancer, most Americans do not consistently protect themselves from UV rays.

There are three types of skin cancer related to sun exposure:

Basal Cell Carcinoma: the most common, arises from epithelial cells, which form the bulk of the outermost layer of your skin. It can appear as a red patch, or irritated area, a small pink pearly lump, white or yellow scar like area, smooth growth with a dent in the center, or an open sore that bleeds or oozes.

Squamous Cell Carcinoma: also arises from the epithelial cells. The most common sites are the ears, face and mouth. It usually arises from a precancerous lesion that appears as a rough, flat pink spot that is raised above the skin level and is firm to the touch

Melanoma: the most serious type of skin cancer begins on or near an existing mole. According to the American Academy of Dermatology, one person dies from malignant melanoma every hour. Adding, since 1973, new cases of melanoma have increased by 150 percent.

Sunburn as a child is the cause of most melanomas in later years. A survey sponsored by the Centers for Disease Control and Prevention (CDC) found that approximately 43 percent of white children under the age 12 had at least one sunburn during the past year.

However, anyone can get melanoma. Signs of people with a higher susceptibility to melanoma include:

- a strong history of this type of cancer in two or more family members (it has been found that a person with a first degree relative has a 2.24 fold higher risk of melanoma)

- three or more episodes of blistering before age 20
- three or more years spent at an outdoor job as a teen

In order to detect skin cancer in its earliest stages, it's important to check your own skin, preferably once a month. Be familiar with your pattern of moles, blemishes, freckles, and other marks on your skin so you will notice any changes. Have a doctor look at any moles or spots on the skin that are changing in size, shape, or color. Any unusual sore, lump, blemish, marking, or change in the way the skin looks or feels may be a sign of skin cancer. Know the difference in appearance between melanoma and an ordinary mole. Most people have moles, and most moles are harmless, but it is important to recognize changes in a mole that can suggest a melanoma may be developing.

According to **Karen Sondrol-Maxwell**, Bechtel Nevada occupational nurse, nearly all skin cancers are preventable by limiting unprotected exposure to the sun between the hours of 10:00 a.m. and 3:00 p.m.

"An important point to remember is that a tan is not a sign of health," she said. "Damage to DNA must have been produced to create a tan."

If you have any questions regarding skin cancer, please contact **Sharon Mulhall** at (702-295-4736) or **Karen Sondrol-Maxwell** at (702-295-1474).

For additional information on skin cancer, please visit the following web sites:

- www.skincancer.org/artificial/index.php
- www.melanomafoundation.org/
- www.skincancer.org/children/index.php
- www.cdc.gov/mmwr/preview/mmwrhtml/rr5104a2.htm

How to check your skin for early signs of melanoma

Face a wall mirror and examine your face, lips, ears, and eyes. Use a flashlight to check the inside of your mouth, nostrils and ears. Check your neck, shoulders, upper chest, and if you are a woman under your breasts.

Using two mirrors check behind your ears, neck and upper back. Part your hair with a brush or comb and check your scalp. Have a family member help. **The back is the most common site of melanoma in men.**

Check your abdomen (front and sides). Use two mirrors to check your lower back, buttocks and genitals (including anus, vaginal areas, penis and testes).

Raise both arms and check underneath, both sides of arms and hands. Check between fingers and under nails. Check both sides of upper body.

Check all sides of legs; include feet (tops, heels, soles, between toes and under toenails). **Legs are the most common site of melanoma in women.**

Lessons Learned

Recall of Electrical Testing Components

The U.S. Consumer Product Safety Commission recently issued a recall for modular test leads used for electrical testing multimeters. Fluke Corporation manufactures the components and has received almost 30 reports of the leads operating improperly.

The leads, which are used to connect probes to handheld digital multimeters when testing for the presence and amount of voltage present in electrical circuitry, can result in incorrect multimeter readings. This poses a serious shock or electrocution hazard if the consumer touches live wires that the meter has read as having no electrical current.

The recalled test leads were sold at home and hardware stores and electrical distributors nationwide from December 2002 through March 2004 and are red and black with no permanent probes attached. They have the Fluke logo on the connector ends, and they were sold individually, as well as with a variety of Fluke multimeters and accessory kits. The recall includes only Fluke Model TL221, TL222, and TL224 test leads.

Consumers should stop using the recalled modular test leads immediately. Safety professionals will instruct appropriate managers to remove the equipment from service and red tag it.

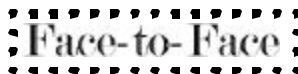
If you have questions, please contact **Bechtel Nevada Safety and Industrial Hygiene** at (702-295-7400).

Retirements

- James D. Helvie, Jr.** – Bechtel Nevada
- Charles D. Herrington** – Bechtel Nevada
- Karen K. Horton** – Bechtel Nevada
- Billye S. Neilson** – NNSA/SC

In Memory

- George Borges** – former contractor employee
- Shirley Lake** – former contractor employee
- C.D. "Bama" McNight** – former Bechtel Nevada employee
- Guy Sherman, Jr.** – former contractor employee
- Earl Sorom** – former contractor employee
- Edmund P. Sullivan** – former contractor employee
- Ron "Spanky" Taylor** – former contractor employee
- Johnny Valentine** – former contractor employee



Name: Robert Zella
 Company: Stoller-Navarro Joint Venture
 Job Title: Underground Test Area (UGTA) Project
 Hometown: Lilly, Pennsylvania
 Hobbies/
 Interests: Racquetball, bowling, and hiking

CALENDAR OF EVENTS

July 27

Energizers Toastmasters club meeting. Meeting begins at 11:30 a.m. Building 6, Conference Room A. Cheyenne Facility. Contact **Tonja Patton, BN (702-295-2621)**.

August 10

Energizers Toastmasters club meeting. Meeting begins at 11:30 a.m. Building C-1, Room 6610, North Las Vegas Facility. Contact **Tonja Patton, BN (702-295-2621)**.

September 11

Yucca Mountain public tour, open to interested members of the public. For Las Vegas departure, call **800-225-6972**. For Pahrump departure, call **775-727-0896**. For additional information, visit <http://www.ocrwm.doe.gov/contact/upcoming.shtml>

September 18

Yucca Mountain public tour, open to interested members of the public. For Las Vegas departure, call **800-225-6972**. For Pahrump departure, call **775-727-0896**. For additional information, visit <http://www.ocrwm.doe.gov/contact/upcoming.shtml>

September 28

NTS Public Tour, open to interested members of the public. CP-1, Sedan Crater, Frenchman Flat, HAZMAT Spill Center, Bilby Crater, Area 5 Low-level Radioactive Waste Management Site, Apple II houses. Contact **Brenda Carter, BN (702-295-0944)**.

October 20

NTS Public Tour, open to interested members of the public. CP-1, Sedan Crater, Frenchman Flat, HAZMAT Spill Center, Bilby Crater, Area 5 Low-level Radioactive Waste Management Site, Apple II houses. Contact **Brenda Carter, BN (702-295-0944)**.

November 23

NTS Public Tour, open to interested members of the public. CP-1, Sedan Crater, Frenchman Flat, HAZMAT Spill Center, Bilby Crater, Area 5 Low-level Radioactive Waste Management Site, Apple II houses. Contact **Brenda Carter, BN (702-295-0944)**.

Declassified Film Showings

For information on declassified film showings at NTS CP-1, call **702-295-4015**. For information on declassified film showings at NTS Yucca Mountain, contact **Rod Rodriguez (702-295-5825)**.

Upcoming Conferences, Meetings, and Trade Shows

October 20-23

2004 Civil Engineering Conference and Exposition. Baltimore Convention Center, Baltimore, Maryland. For additional information, visit www.asce.org/conferences/annual04/

November 5-11

International Association of Emergency Managers 2004 Annual Meeting. Adams Mark, Dallas, Texas. For additional information, visit www.iaem.com/index.php

July is: Eye Injury Prevention Month

And

Cell Phone Courtesy Month



And

August is: National Inventor's Month

And

Children's Eye Health and Safety Month

SiteLines

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