

the Y-12 times

A newsletter for employees and friends of the Y-12 National Security Complex

WHAT'S INSIDE

Page 2

Sliding into VPP Star status

Page 3

Y-12 apprentices use the GI Bill

Page 4

Y-12's green success

Page 6

Down on the farm with a Y-12 retiree

Page 8

A 10-year-old dream becomes reality

Volume 11, No. 3

April 2011

www.y12.doe.gov/news/times.php

P.O. Box 2009
Oak Ridge, TN 37831-8245

B&W Technical Services Y-12, LLC, a partnership between Babcock & Wilcox Technical Services Group Inc. and Bechtel National Inc., operates the Y-12 National Security Complex.

Managing Editors

Amy Alley:
alleyab@y12.doe.gov
Heidi Spurling:
spurlinghw@y12.doe.gov

Ashley Douglas
Ryn Etter
Kathy Fahey
John Holbrook
David Keim
Terry Marlar
Cindy Moffett

Maleia Wood
Mona Wright

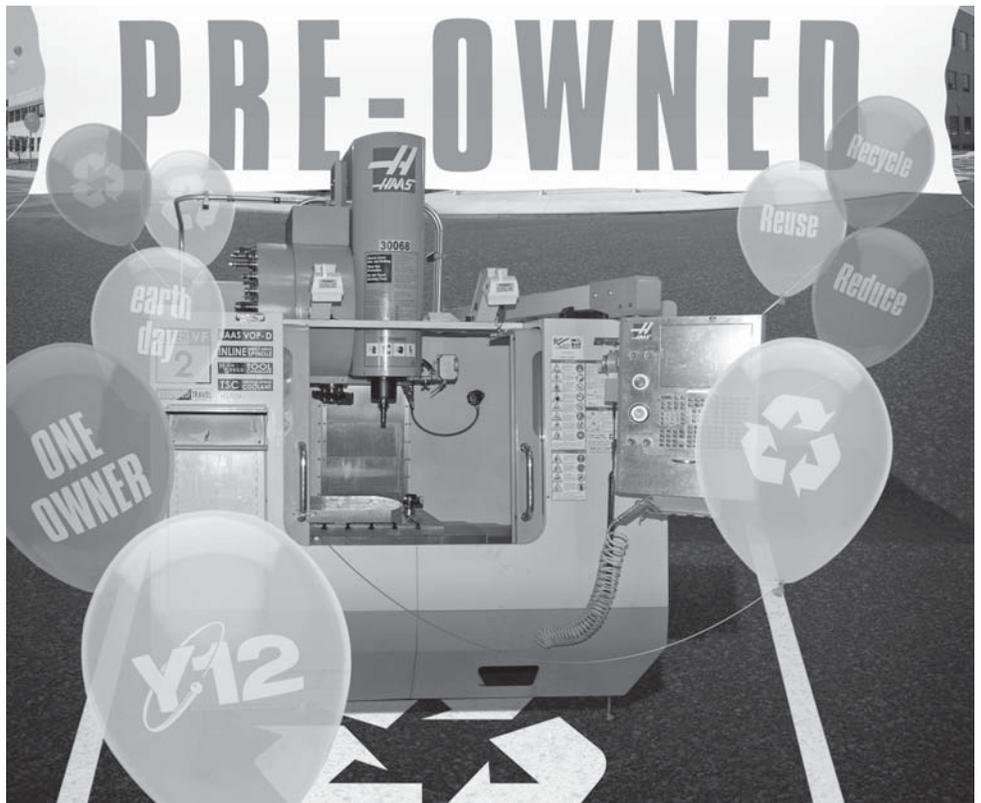
Layout

Lisa Harris

Contributors

Ellen Boatner
Mary Bryant

Brett Pate
Ray Smith
Donna Watson



Relocation of equipment saves money

We all know Y-12 takes every opportunity to reduce, reuse and recycle. Most people think primarily of paper, plastic, cardboard and aluminum cans when they see the famous triangular logo, but Y-12 goes further. When Sandia National Laboratories in Albuquerque, N.M., decided to outsource its machining work in fall 2009, its equipment was advertised within the National Nuclear Security Administration, and Y-12 seized the opportunity.

Rick Craze, with Y-12 Production, was one of four Y-12 employees to visit Sandia and inspect the equipment. According to Craze, a Sandia representative said the company had many other interested parties.

"He mentioned that several companies across the complex and others—including universities—had inspected and expressed interest in the equipment. His intention, however, was to place the equipment where it would best fit weapons mission needs," Craze said.

Y-12 soon inherited 10 pieces of equipment and hundreds of cutting and hand tools.

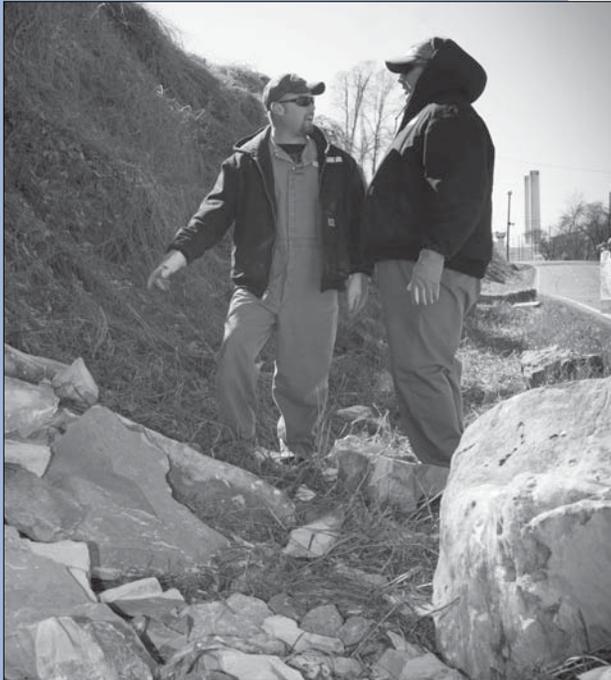
"The equipment was received in March 2010 and seven of the machines are completely installed and running. The other three are ready and scheduled to finish installation this year. The machines are 15 to 20 years newer than the machines they replaced, allowing us to increase our capacity to meet production and tooling needs," Craze explained.

The Oak Ridge Metrology Center also received five pieces of equipment.

According to Duane Bias, project execution manager in Global Security Programs, the only cost to Y-12 was uninstalling the items at Sandia and transporting and reinstalling them at Y-12. The equipment had already been bought and paid for by the government, Bias said.

Craze estimated the value of the equipment and tools at nearly \$2 million. "These exchanges happen more often than most people realize," Craze said, "but this case was the most extensive that I can remember for our facility."

Our VPP commitment put to the test



Thanks to the watchfulness of Anthony Lucas and Bobby Goins, a potential accident was avoided.

It took less than 24 hours for Y-12 employees to demonstrate the commitment to our pursuit of Voluntary Protection Program Star status. On Jan. 27, the day after the VPP kickoff, Roads and Grounds crew members Anthony Lucas and Bobby Goins were driving on Third Street when they were stopped by a 10-foot rock in the middle of the road.

“We looked over to see smaller pieces of rock in the ditch,” said Lucas. “That led us to look up to find the source.”

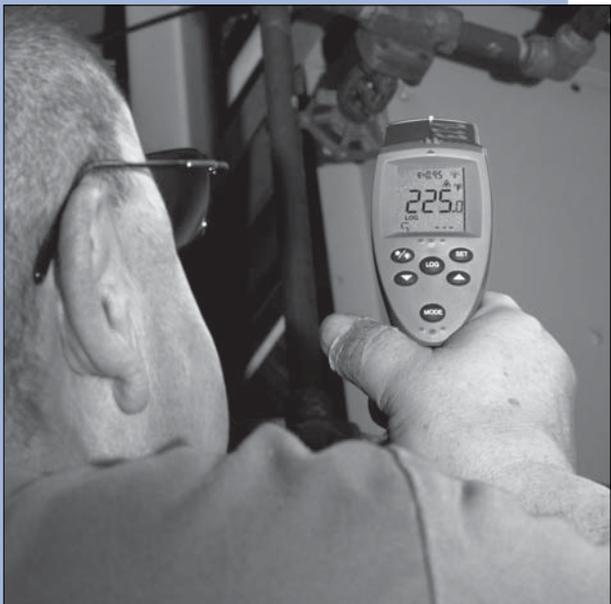
Immediately they contacted Roads and Grounds manager Brian Hutson, who secured the area and ordered a geologic investigation, which revealed that 50 feet on both sides of the rockslide had been undercut and had left the bank unstable. This could have been due to fall rains and winter thaws.

The safest and most efficient way to mitigate the problem was by closing Third Street completely and issuing an emergency procurement. They were able to use a contractor already on-site working the Bear Creek Road Bypass Project.

Even though the connection to VPP may not have been obvious to those involved in the incident, it was clear to those closely involved in the program’s inception.

“One of the core components of VPP is looking out for one another,” said Mike Thompson, Atomic Trades and Labor Council vice president and VPP committee member. “Those employees reduced any potential danger to other employees simply by acting. Also, with the company’s response to get further evaluations by experts, we reduced that danger even more,” he said.

Using an old tool in new ways



The infrared thermometers allow the operators to do their readings from the ground instead of climbing up a ladder.

Sometimes a great idea doesn’t involve creating a new technology or applying for patents. Sometimes it’s simply using something already available in a different, yet practical, way. That’s exactly what John McCulley did when checking a steam trap recently.

“The way we were checking steam traps wasn’t very efficient,” McCulley said. “We’d have to go find a ladder, then we’d climb all the way up and just feel with our hands to see if the traps were working properly.”

So McCulley proposed the idea of using infrared thermometers, a tool already used on-site, in regular steam trap readings. Utilities operations manager Larry Petrowski immediately jumped on board.

“Safety is Priority One here. When the operators did readings, they’d have many obstacles throughout the job,” Petrowski explained. “They’d have to get a ladder, set it up, climb up and get the reading. In those steps, many hazards were possible: a lifting injury, falling from the climb, pinch points in the ladder. Also, if the pipe was either very hot or very cold, that would present a considerable risk as well.”

The new method is also much more efficient. “Instead of multiple steps for the operators, there are just a couple. We get the thermometer and simply hold it up under the steam trap. It can read the temperature from 20 feet down,” McCulley said.

The next time you’re doing a tedious task, keep John McCulley’s solution in mind. You may think of a way to make it just a bit easier.

Reducing hand and finger injuries

As 2011 started, Y-12 Safety reminded employees to do their part to reduce hand and finger injuries. After three months, how are we doing?

“We have had four hand/finger injuries since the beginning of the year,” Ed Werden of Safety shared. “These accidents show how important the proper personal protective equipment is when completing a job because three out of four injuries could have been prevented by wearing the proper glove or using the right tool for the job,” he said.

As Y-12 continues its journey to Voluntary Protection Program Star status, remember that we all have a part in preventing injuries by using Integrated Safety Management to plan and conduct work activities. Before starting a job, employees should verify they have the right tools at hand — and on their hands.

Now available in the Y-12 Stores are tools and gloves to help ensure employees are protected. While personal protective equipment plays a major role, it should never be relied on solely for protection. Employees are reminded to examine the exterior of the tools/equipment being used for sharp edges, splinters and/or protrusions.

“It’s important to be aware where you are placing your hands and make sure they are not in the line of fire,” Werden said.

The GI Bill in today’s world

Eligible veterans in Y-12’s apprenticeship program can now be paid by the GI Bill retroactive to September 2009. This funding is in addition to the salaries they earn as Y-12 employees.

“I think this is great recognition for our vets,” said electrical apprentice Jason Harris. “It gives something extra to those who went above and beyond for their country.”

Harris used the GI Bill to get his business management degree. When he joined Y-12’s apprentice program, he wondered if the GI Bill could apply to his apprenticeship as well. Beth Green and John Whalen of Facilities, Infrastructure and Services pursued the answer for 18 months, and now the program is approved retroactive to September 2009. “Per the vet guidelines, they’ll be paid monthly if they work 120 hours per month,” said Green. “The money can be up to \$1,000 a month for a living allowance while they’re going through our program, and they’re already earning a fair wage.” Five other military veterans now in the apprentice program are gathering their paperwork for approval, as well.

“This is a great benefit for the vets and what they deserve,” Whalen said.

Y-12 also helps military veterans by providing jobs to engineering students through the Science, Technology, Engineering and Math, or STEM, program America’s Veterans to Tennessee Engineers. The program was established in 2009.

“Like STEM, this is another way of supporting veterans,” Green said. “This is a case of showing that we support our union.”

The VPP journey — Safety for Life — is just that: a journey we’re on throughout our careers and lives and one of continuous improvement.



From left to right are Pat Vigil, Jason Harris, Sam Irwin and Joe Riordan. As military veterans who are part of Y-12’s apprenticeship program, they are gathering their paperwork to apply for funding through the GI Bill.



Last year ended on a high note with Y-12 being reaffirmed as a Tennessee Pollution Prevention Partnership partner, thanks to employees' continued support of pollution prevention activities.

Greening Y-12 continues

As Earth Day (April 22) approaches, Y-12's Sustainability and Stewardship team has many successes to celebrate.

Pollution prevention has been important at Y-12 since the 1990s. Since 1993, Y-12 has completed more than 1,010 pollution prevention projects. Last year, 110 pollution prevention initiatives were initiated and more than 50.68 million kilograms (more than 111.72 million pounds) of waste were reduced.

"This outstanding prevention created a cost savings/avoidance of more than \$6.1 million," said Aprell Patterson, Pollution Prevention Program. "We are currently pursuing more than 80 additional pollution prevention projects."

During 2010, Y-12 recycled more than 2.9 million pounds of materials, including (but not limited to) paper, cardboard, wooden pallets and scrap metal.

Another success of 2010 was the huge cleanup effort that resulted in removal of more than 645 tons of materials. "Amazingly," said Jan Jackson, Sustainability and Stewardship manager, "more than 2,000 tons of materials have been properly dispositioned since the cleanup efforts began in August 2008, and more than one-third of materials were recycled or reused rather than disposed."

This activity improved operational efficiencies, housekeeping and safety and security issues while freeing more than 2,900 square feet of valuable floor space that can be used for other mission-critical tasks.

One thing Jackson is always recycling is her feeling that Y-12 employees' contributions are what make the program so successful.

"This success would not be possible without the efforts of every employee at Y-12," Jackson said. "I thank each of them for their tremendous efforts during 2010 and for the great ideas for reducing even more waste and increasing recycling initiatives."

Y-12

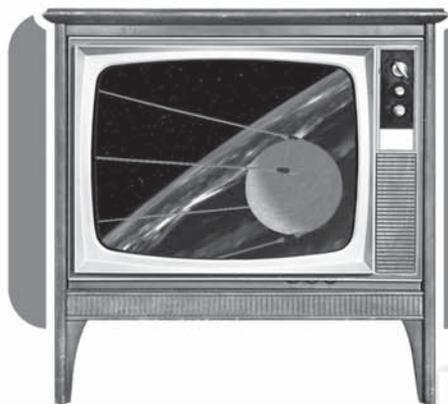
First site for LOCAS Affirmation Review

During the first week in May, the National Nuclear Security Administration will conduct a Line Oversight and Contractor Assurance System, or LOCAS, Affirmation Review at Y-12. While all NNSA sites will eventually undergo a LOCAS Affirmation, Y-12 will be the first. Y-12 is first based on the results from required internal and corporate validations of the Contractor Assurance System as well as reviews of site office oversight.

During the LOCAS Affirmation, NNSA reviewers will evaluate how well Y-12's CAS collects sitewide information, and how well that information is used — is it visible to those who need it and how effectively is the information leveraged to make risk-informed decisions? PerformanceTrack was developed internally as a Web-based tool for collecting and reporting important CAS information from across the site. The information is made available through PerformanceTrack to all Y-12 authenticated users — both B&W Y-12 and the Y-12 Site Office — and provides a clear picture of Y-12 performance.

The LOCAS Affirmation, which ties directly to NNSA's Governance Transformation initiative, is fundamental to ensuring that contractor assurance systems employed by NNSA contractors demonstrate whether mission objectives are being met safely, efficiently and cost-effectively. "The LOCAS Affirmation process is a review based heavily on performance versus just compliance. It also includes the line oversight functions of the site office," said Vaughn Hooks from Performance Assurance.

Y-12 is excited to be the first to undergo this comprehensive LOCAS Affirmation — a review process that will establish a baseline of the current performance and define opportunities for improvement.



Y-12 THROUGH THE DECADES

the LATE 1950s



Y-12
CARBIDE
112

THE BULLETIN

A NEWSPAPER BY AND FOR Y-12 EMPLOYEES OF CARBIDE AND CARBON CHEMICALS COMPANY
A DIVISION OF UNION CARBIDE AND CARBON CORPORATION

Vol. 9, No. 6

OAK RIDGE, TENNESSEE

April 8, 1957

Almost as soon as World War II ended in August 1945, the Cold War began. In Winston Churchill's "Sinews of Peace" address March 5, 1946, the term "Iron Curtain" was used to describe events that divided Europe and caused the Soviet Union to be seen as a potential enemy.

By then, the Soviet Union was well on its way to building its own atomic bomb using the plans for Fat Man provided to them by Klaus Fuchs in June 1945 (before the design was tested at Trinity). The Soviet Union exploded Joe-1, its replica of Fat Man, Aug. 29, 1949.

The Cold War heated up considerably.

Y-12 was expanding its role of producing uranium metal from the gaseous diffusion process at K-25 and machining uranium parts. The designs for nuclear tests were coming to Y-12 for components to be manufactured. The pace of Y-12's machining work was picking up considerably.

Because of the fear of the Soviet Union's activities in Europe, U.S. nuclear weapons tests began almost immediately after the war. Atmospheric tests were conducted in 1946, 1948, and 1951 through 1958. Tests ended in 1962. Underground testing began in 1957 and continued until 1992, with many weapons containing nuclear components made at Y-12.

In the midst of the early testing, the Soviet Union exploded its first thermonuclear bomb Aug. 12, 1953. A second Manhattan Project-like effort was initiated at Y-12 — the separation of Lithium 6 from Lithium 7. The COLEX (column exchange) process was selected from three pilot processes as the best one to use. Dr. John Googin was the champion and lead designer of this process.

Buildings 9201-4 and 9201-5 were filled with huge columns and began operations in 1955. Operations ended in 1963. Googin was known to walk through the buildings,

and, upon listening to the process, instruct operators regarding how to improve the process flow and operations.

The ADP (Alloy Development Project) was the official name of the effort that provided the nation with some of the essential materials for the thermonuclear weapons.

Again, Y-12 had performed well. The can-do attitude still prevailed (and continues as employees meet today's missions).

Editor's note: While this article did not originally appear in an issue of *The Y-12 Bulletin*, many historical articles have over the years.

You can view historic issues of the newsletter, *The Y-12 Bulletin*, at http://www.y12.doe.gov/about/history/historical_media.php. The newsletter was published weekly between May 1947 and sometime in the 1980s. Employee news continues today in the form of *The Y-12 Times*.



Top: COLEX Control Room in Building 9201-4 (Alpha 4); middle: Fat Man; bottom: COLEX process equipment in Building 9201-4 (Alpha 4).

Visiting the Brandons' Llama farm

By the time George Brandon retired from Y-12's Health Physics department (now Radiological Control) in 1996, he and wife Pat had already moved to the farm. Both had grown up in the country and were glad to return to rural life.

Back in 1989, they started populating their farm in Oliver Springs, and before long, they added what would become the primary residents—llamas. "We were impressed by the ones we saw carrying supplies from Gatlinburg to the lodge on Mt. LeConte, and we began reading everything we could about llama care," George remembers. A former LeConte pack animal named Chaucer was the Brandons' first llama, followed by many others, most with special needs.

Today, the 40-acre farm on Mahoney Road, officially called the Indian Creek Llama Sanctuary, is permanent home to about 65 llamas. The animals come through the University of Tennessee, the courts, private citizens and rescue organizations. "Once here, the llama will live out its life in an atmosphere as comfortable as we can make it," George promised.

For the Brandons, the work is full-time. "It's not unusual for us to eat midnight suppers when we have a sick or injured animal," George said.

He added that he hasn't regretted the choice to spend retirement this way, except maybe when he's tending to a sick animal in the cold rain at 3 o'clock in the morning. "It's hard work, but it makes us get up and get going every day," he said.



Pat and George Brandon and their granddaughter Sarah Nickle, with a prize-winning llama named Moe. "Moe is a good example of the 'reward' we get through caring for the animals we take in," George said. (Sarah's mother is Beth Nickle of Y-12 Information Technology.)

Around Y-12 ...

- **Terry Olberding, Y-12 Site Office assistant manager for Operations Management, received the National Nuclear Security Administration's Gold Medal Award** in recognition of her 32 years of service. NNSA Administrator Tom D'Agostino presented the award to Olberding at Y-12 Feb. 3. The Gold Award is presented to individuals who have demonstrated significant accomplishments during a lifetime of commitment to national service. D'Agostino said, "Terry is highly deserving of this award, and it really gives me great pleasure to present the Administrator's Gold Award to Terry."
- **Forty Knox County middle and high school teachers visited Y-12 Feb. 21 as part of Knox County's second annual Vols4STEM In-Service Day.** The teachers got a firsthand look at how the math and science concepts they're teaching in the classroom apply in the real world. Y-12 engineer Matt Freels, who volunteered at the visit, said, "If it weren't for my high school chemistry teacher, I wouldn't be an engineer. Today, I can't imagine doing anything else. I love what I do. It's important work, and it's fun."
- **Some 20 employees from Y-12 marked National Engineers Week, Feb. 20-26, by visiting 13 area schools and discussing engineering fields,** as well as providing a fun but challenging engineering project to students. Y-12 encourages middle and high school students to consider the opportunities of an engineering career. Investing in these students today can better ensure the future Y-12 work force will continue to maintain the best engineering and technical capabilities.
- **When heavy floods in late February caused major damage to Second Harvest Food Bank's food warehouse in Knoxville, Y-12 employees and subcontractors donated more than \$12,000.** The money will likely be used to repair an estimated \$300,000 worth of damage.
- **B&W Y-12 is supporting the Oak Ridge Earth Day event April 30 at the Oak Ridge Civic Center and Bissell Park.** At the event, Y-12 will have an exhibit featuring its Sustainability and Stewardship/Pollution Prevention program. "Supporting community Earth Day events allows us to share the good things Y-12 does to protect our environment and promote the Tennessee Pollution Prevention Partnership program," said Aprell Patterson of Y-12's Pollution Prevention program.



APRIL

43 years

Emergency Services: Donnie W. Burney

42 years

Facility Management and Programs: Brian A. Shanks

Production: Terry W. Barnes, Douglas Chandler, Susie M. Collier and James R. Queener

Quality Assurance: Emmett J. Walker

41 years

Engineering: John R. Jackson

Information Technology: Richard D. Jarrell

Production: Duane L. Craig

Utilities Management: James A. Montgomery

40 years

Emergency Services: Stanley R. Burney

Quality Assurance: Sherrill L. Cook

Resource Management: Rufus Bowen Jr.

35 years

Engineering: Mark H. Albert and Marvin O. Dixon

Maintenance Support: Linda D. Nelson and Terry L. Phillips

Production: Warren S. Bowman and Rickey E. Shipley

Quality Assurance: Samuel M. Steelman

Resource Management: James D. Willocks

“ I’ve seen a lot of changes over 41 years—more security, the upgraded appearance of Y-12. I’ve made a good living here, and I like what I do. I’ve raised a couple of kids at home and made new friends at work. I hope the new generation of Y-12 employees will have the opportunity to work here as long as I have. ”

—Duane L. Craig, a machinist, on looking back on 41 years of company service

30 years

Environmental Compliance: Jennifer L. Dixon

Information Technology: John R. Harris

Talent Management: Connie M. Dunn

25 years

Budgets: Kristi R. Everett and Susan T. Lane

Production: Marion L. Mallory and Charles A. Tindell

Resource Management: Lana D. Golden

20 years

Benefit Plans Management: Stacey A. Richesin

Engineering: Robert L. Brown, William W.

Bowman, Lee A. Headrick, Glenda S. Neal and Richard W. West

Legal: Greg L. Livengood

Occupational Health Services: Mary L. Benton

Plant Services: Michael A. Cozart

Production: Dwayne L. Beaty, Danny R.

Thompson and Marvin A. Webb

Quality Assurance: Jerry R. Hartline and

Raymond R. Pietrzak

Resource Management: Gary E. Butler,

Donald D. Fox, Charles W. Hickman Jr.,

Mary L. Lewis, Ronald L. Nail and Telesa K.

Weaver

Utilities Management: Donald D. Bates Jr.

Fix-it crew on the scene April 30

Time to don work gloves, get out the knitting needles and bone up on llama speak. Y-12’s Volunteer Day is set for April 30. Employee teams will help nonprofit agencies throughout the region with service projects such as painting, landscaping, knitting blankets for newborns and performing minor repair work.

This year, Kerry Grooms of Quality Assurance is leading a project to repair fences at the Indian Creek Llama Sanctuary, which rescues llamas abandoned by their owners (see related story on page 6). “My wife and I have three rescued llamas,” said Grooms. “They are big pets. They’re friendly, curious and entertaining.”

Jane Hatfield of Facilities, Infrastructure and Services is heading up the project to remove fences and brush from around residential lots that are a part of Teen Challenge of East Tennessee. “I wanted to broaden the reach of Volunteer Day by conducting a project in east Knoxville,” she said. Teen Challenge provides Christian counseling to those in need.

“It’s an opportunity to give back to the community and support an organization that provides a lot of value,” said Terry Domm of Business Services and Performance Assurance, who’s the team captain for the Girls Incorporated of Oak Ridge project. The organization provides life skills training and sports programs for girls.

Leona Lewis of Facilities, Infrastructure and Services is the lead for the Heiskell Community Center project. “We’ll be working on a brick garden,” said Lewis. “I support this project because there’s a need and because of sentimental reasons.” Lewis attended the old elementary school that’s been turned into the center, which provides games and day retreats for all age groups.

To volunteer for these and other Volunteer Day projects, visit YSource.

Day of Volunteering

April 30

Contact: Alice Brandon,
574-1640

March of Dimes March for Babies

May 7, Bissell Park, Oak Ridge

Contact: Keith Wilson,
241-4334

P.O. Box 2009
Oak Ridge, TN 37831-8245

PRSRT
STD
PAID
U. S. Postage

Permit #36
Powell, TN



The Butterfly Room in East Tennessee Children's Hospital's Neonatal Unit provides a "home-like environment" for families to simply spend some time.

The Butterfly Room

a solemn purpose

The idea of the Butterfly Room in East Tennessee Children's Hospital's Neonatal Unit began with a set of triplets 10 years ago. While two babies thrived, one simply couldn't. Neonatal nurses had to comfort the family in a breast-feeding and procedure room full of color, hope and joy—not something a grieving mother wants to focus on.

"Before, it was a room geared toward going home," explained Sonya McGill, ETCH Neonatal Services Coordinator. "As sad as it is, not every family has that experience."

When a family learns that they have very limited time with their baby, they're able to stay as long as they want. "They can come here to focus on their baby. It's their room, their time," said McGill. The room is also equipped with the medical gases many struggling newborns need, giving a family a warm environment while maintaining quality care.

"The nurses see the benefits and know the importance of the room," said Keith Wilson, Atomic Trades and Labor Council chairman for the March of Dimes. "When you're there day after day and see families lose their little ones, it gets personal. You want to do all you can."

B&W Y-12 made a \$19,000 donation to help make the room a reality. "This had been on their list for a while, and they were only lacking the funds," Wilson explained.

Beth Hilbelink, a staff nurse in the Neonatal Unit said, "You don't want to have to use this room, but there's an opportunity every day."