

## UPF team receives go ahead

The Uranium Processing Facility project team received federal approval on July 25 to begin preliminary design, another major milestone for the new facility. The Y-12 facility will play a major role in helping the National Nuclear Security Administration achieve its Complex 2030 vision of establishing a smaller, more efficient Nuclear Weapons Complex able to respond to changing national and global security challenges.

Deputy Secretary of Energy Clay Sell approved "Critical Decision-1" during an Energy Systems Acquisition Advisory Board meeting at U.S. Department of Energy Headquarters. CD-1 marks the end of the project's conceptual design phase and provides authorization to begin the project's execution phase. Construction of the new facility is scheduled to start in 2010 with operations beginning in 2018.

NNSA Y-12 Site Office Manager Ted Sherry formally released the UPF project team to proceed with design activities in a July 31 letter, stating, "The Deputy Secretary's approval of Critical Decision-1 with no conditions speaks highly of this site's ability and capability. Thank you and your project team for a job well done in achieving this very crucial milestone. ... This approval represents a vote of confidence from NNSA for the site and BWXT Y-12, L.L.C."

As an integral part of Y-12's long-range modernization plan to be the NNSA's Uranium Center of Excellence, UPF is one of two new facilities whose joint mission will be to store and process all enriched uranium in one much smaller, centralized area.

UPF will be a state-of-the-art, consolidated facility for enriched uranium operations, including assembly, disassembly, dismantlement, quality evaluation and product certification.



# Improvements made to Y-12's beryllium program

Y-12 employees often hear about beryllium, whether from a report they are reading, a task they are performing or a co-worker who may be beryllium sensitive. Those involved with the Y-12 beryllium program are working to improve communications—a key element of any successful health and safety program.

“As part of our continuing efforts to improve our Chronic Beryllium Disease Prevention Program [or CBDPP], we have a number of ongoing initiatives,” said Tom Ford, Industrial Hygiene manager.

One such initiative is the Beryllium Support Group. The BSG was established to provide information and support to maximize the health and well-being of workers and former workers with chronic beryllium disease or beryllium sensitivity. Beryllium-affected workers, the management sponsor, and Environment, Safety and Health personnel meet every two weeks with Dr. Russ Reynolds of Occupational Health Services facilitating the group.

When the BSG has issues, it takes them to the Beryllium Issues Steering Committee. This team, comprised of Y-12 senior leaders and the officers of the BSG, ensures items are addressed in a timely and consistent manner. The BISC meets monthly and has been successful in addressing a number of key issues of concern to beryllium-affected workers.

Another new innovation is the newly created web-based application “Beryllium Communicator.” This database streamlines communications with employees and serves as a reference tool for project planning.

According to BSG chair Gordon Diplo, “The ‘Beryllium Communicator’ is a giant step forward in providing every employee at Y-12 access to the most current data available on where beryllium is known to be present in the plant. The interactive database contains information on Y-12 buildings and links to other key information.”

IH has help from other Y-12 organizations in tracking data. Analytical Chemistry's Tom Oatts knows firsthand about the beryllium samples taken each year at Y-12. “Analytical Chemistry personnel provide support to all the Y-12 beryllium program samples. We work with IH and other Y-12 programs to analyze samples and provide support to help Y-12 maintain its mission and support the health and safety of Y-12 employees.”

In the near future, employees with an abnormal beryllium lymphocyte test—or BeLPT—and their supervisors will receive

new training entitled Beryllium Awareness Training for Workers and Supervisors. This initiative provides key information to personnel who are determined through medical testing to be sensitive to beryllium. Supervisors receive awareness training relative to work restrictions and other pertinent information.

Although there have been many successes and continuing improvements, challenges remain; the most difficult being how to manage low levels of beryllium surface contamination without direct reading instrumentation to measure it.

“In the absence of any regulatory limit on beryllium surface contamination outside of a beryllium operational area, we [BWXT Y-12] have voluntarily taken aggressive action and established a very low limit for surface contamination outside those areas,” Ford said.

To address this issue, IH is conducting a thorough review

“

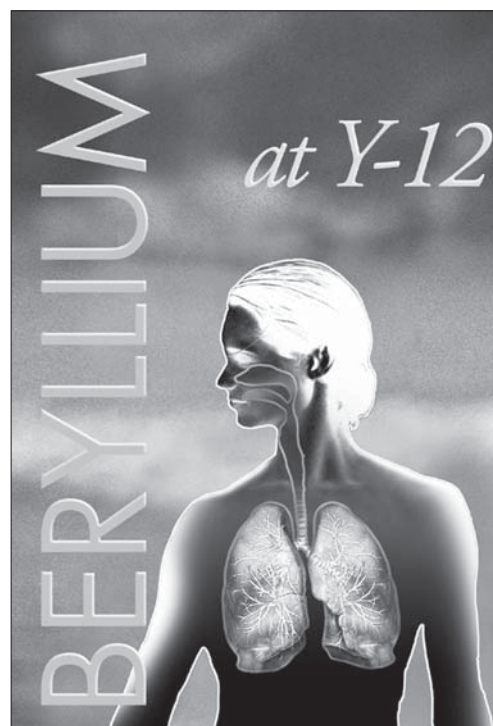
We work with IH and other Y-12 programs to analyze samples and provide support to help Y-12 maintain its mission and support the health and safety of Y-12 employees.”  
—Tom Oatts, Analytical Chemistry

of past surface sampling data to ensure areas with legacy surface contamination are properly

identified and posted. A recent U.S. Department of Energy and National Nuclear Security Administration Headquarters review showed that Y-12 has established a plan that will address legacy beryllium surface contamination and will result in improvements to an already strong and comprehensive beryllium program.

With enhancements like these under way and a plan on how to address challenges, it is clear to see Y-12's beryllium program is evolving and making communications with employees a central theme.

As Jim Jenkins, beryllium program lead, said, “We're making efforts to present information in a less technical and more open manner. Some examples of this are the ‘Beryllium Communicator’ and awareness training.”



# MESSAGE FROM George E. Dials, President and CEO

To obtain Target Zero, all Y-12 employees have to work together. Encouraging such teamwork is one of the goals of the recently created President's Environment, Safety and Health Forum.

Each month, members of ES&H and I meet with managers and employees from each organizational unit of BWXT Y-12 to review, discuss and develop solutions to address ES&H concerns and issues. Our goal is to improve working conditions across the site by involving employees in identifying and addressing hazards.

As a forum activity, we divide participants into groups to develop possible solutions to the selected problems at hand. So far, we've discussed overexertion, back injuries and Behavior Based Safety. In fact, the poster at right is a result of discussions on overexertion and back injuries.

You may have noticed that morning announcements are now made by the same organization for a month at a time—that's another outcome of the forum. The sponsoring organization communicates ES&H topics to the plant population through morning safety announcements and YSource and YLights articles.

We're off to a successful start, and I want you to get involved. Talk with your supervisor or manager about your ES&H-related

ideas and suggestions. Help organize your division's participation and discuss ES&H topics with your co-workers.

Remember, what you do counts. By working together, we can achieve Target Zero.

If you have questions about the President's ES&H Forum, contact Michelle Reichert or Dave Neubauer in ES&H or talk with your supervisor.

Thank you for your continuing commitment to our ES&H goals.



## The nose knows—protection through detection



Sweet-tempered, enthusiastic, friendly, ready to work—sound familiar?

This excellent attitude describes certain essential Y-12 contributors who perform their duties whatever the weather—on steamy asphalt or icy snowbanks. Most are trained in advanced security techniques (e.g., explosives, narcotics and human detection) crucial to effective defense of the Y-12 National Security Complex.

Shaft and Shadow are two of the 40 four-footed contributors to Y-12 security. The dogs are the responsibility of Freddie Brasfield, owner and trainer of K9 Search on Site. Brasfield imports European-trained canines of various breeds—70 percent Belgian Malinois, 20 percent German shepherds, 5 percent Labradors and 5 percent Border collies—with 40 canines on site at one time. Because of their European origin, trainers must learn their native language (e.g., French, German, Czechoslovakian and Dutch) to give commands that the canines understand.

Some dogs have been singled out for special duty, and they have designated handlers who know them well. For instance, Shaft, a Belgian Malinois handled by Security Police Officer Shane Trew, may have circled your vehicle one morning to ensure it carries no explosive materials. Or Shadow, a French Labrador managed by Security Police Officer Scott Thomas, may be enlisted to sniff out chemical weapons of mass destruction.

The diligent efforts of the canine teams allow Y-12 to maintain the highest grade of national security protection. So when you are asked to pull over to the side for canine inspection, be assured you and your vehicle are being treated to the highest grade of professional inspection.

## Three earn 2007 McDermott Scholarships

Jared Holbrook and Zackary Jackson of Knoxville and Kevin Peek of Oak Ridge are the 2007 recipients of the McDermott International Scholarships. Jared is the son of Information and Materials' Joe Holbrook, Zackary is the son of Safeguards and Security's Andrew Jackson, and Kevin is the son of Engineering's Bill Peek.

Each student will receive \$1,500 per year for four years of college-level study. McDermott is one of the parent companies of BWXT Y-12.

"Jared has a desire to one day work at Y-12," said Holbrook. "With this scholarship, he can devote his energies to studying, not working to pay for college." Jared attends the University of Tennessee where he is majoring in nuclear engineering.

"We know the competition was tough," said Jackson of Zackary's winning the scholarship. "As parents, we appreciate the financial support from the company—every little bit helps." Zackary turned down Harvard and Yale to attend Washington University in St. Louis where he is pursuing a degree in business and finance.

"I'm happy and proud of Kevin's accomplishments," said Peek. Kevin attends Tennessee Technological University and is majoring in chemical engineering.

## Assessment to gauge ISM effectiveness

The corporate independent assessment of BWXT Y-12's compliance with Integrated Safety Management principles, practices and requirements documents will be conducted Oct. 15–26, 2007. The purpose of the assessment is to evaluate the effectiveness of ISM in selected Y-12 operations and identify opportunities for improvement.

The assessment team will include BWXT corporate representatives, outside experts and BWXT Y-12 personnel. Areas to be reviewed include work planning and control, specifically Depleted Uranium Operations and Highly Enriched Uranium Manufacturing Facility construction; feedback and improvement processes; policies and procedures; and Automated Job Hazard Analysis process enhancements.

"It's important that our procedures and processes meet the intent of the ISM guiding principles," said Paul Wasilko, the readiness coordinator for the assessment. "Employees' practical job knowledge, expertise, and shared understanding and joint ownership of ISM processes are crucial for our success."

The overall objective of BWXT Y-12's ISM System is to provide a safe and secure workplace and to perform work safely and securely while protecting the worker, the public, the environment and U.S. Department of Energy assets.

## The Recognition Continues: WINNERS OF PHOTO CONTEST

For the next few months, this feature will highlight the 30 honorable mention photograph winners of the Y-12 photo contest. Photos are shown in no particular order.

Clockwise from top: "Hay Field in Summer" was taken in June 2006 in Meigs County, Tenn., by Wes Sims of Information Technology.

"Trade, Tn" was taken in Johnson County, Tenn., by Dennis Shekinah, father of Elijah Shekinah of Engineering.

"Mowing Hay" was taken in 1990 in Baileyton, Tenn., by Bill Wilburn of Public Affairs and Communications.

"World's Fair Site" was taken in June 2004 in Knoxville, Tenn., by James Pugh of Information Technology.



## Readiness is a key part of the project


Is your facility, operation or activity getting ready to start or restart? Are procedures, safety bases, relevant processes and test data, and personnel training and qualifications in order? If so, the readiness review process will cause no heartburn.

The 2007 Readiness Process Workshop, the seventh annual BWXT Y-12-sponsored readiness workshop, was held recently and focused on evaluating areas of the U.S. Department of Energy start-up and restart order, sharing lessons learned and successful readiness process tools from around the Nuclear Weapons Complex. This year's workshop, the largest workshop to date, had more than 100 participants from almost every site in the complex, DOE Headquarters and the Defense Nuclear Facilities Safety Board.

Senior Vice President and Chief Operating Officer Darrel Kohlhorst challenged participants to "get ready." "When the construction part of project is complete and the operators, shift managers and operations managers stand ready to operate, we need to demonstrate readiness by having a successful readiness review the first time," said Kohlhorst.

A DOE task team composed of readiness professionals from various DOE sites, including Engineering's Joe Crociata and Production Facilities' John Raulston, is working on a proposed revision of DOE Order 425.1 to clarify readiness process requirements. To facilitate complexwide communication, DOE has established a readiness website that will be updated with training modules, proposed revisions, reference lists and mature readiness process procedures from several sites.

Workshop discussions were vital not only in improving readiness performance across the complex but also in helping to achieve the National Nuclear Security Administration's 2030 vision. Planning by Crociata, Raulston, Cindy Bailey and Jean-marie Mounger (both of Information and Materials) and Public Affairs and Communications staff resulted in a successful readiness workshop.



**ES&H Expo 2007**

WHAT YOU DO COUNTS

Make personal.

ES&H EXPO • NEW HOPE CENTER • 10.24.07 TARGET ZERO ACCIDENTS

As of press time, the ES&H Expo 2007 is scheduled for Oct. 24 from 8 a.m. to 4 p. m. at the New Hope Center.

Engineering is again sponsoring a "safety by design" bridge building contest in conjunction with the expo. Y-12 employees, subcontractors, families and friends are encouraged to participate in the contest. Details will be posted on YSource, or contact Cristina Seay (h2c; 574-9830) for more information.

Doug Perry (pdt; 576-7027) is this year's ES&H Expo chairperson.

## What you do counts



Sandy Brown

At Y-12, procedures are serious business, and Sandy Brown of Contracts and Special Initiatives is a procedures expert. As the lead subject matter expert for the Y-12 procedure process, Brown oversees procedures, policies, instructions, program descriptions, bulletins and guidance documents.

"We average around 500 active company-level procedures at any given time," Brown said. She thinks of procedures as guides for getting things done.

"Procedures are just a way for subject matter experts to tell those of us who are not subject matter experts in a specific area how to do something," said Brown.

"We have a webpage with all the company-level active procedures," she said. "It also includes the listing of procedures currently out for review and comment and those that are pending."

Though procedures are crucial to the efficient operation of Y-12, part of Brown's job is to weigh requests for new company-level procedures very carefully before issuing new ones.

"We encourage organizations to place new requirements into existing procedures," she said, "instead of writing new procedures."

Brown said that the most challenging part of her job is keeping up with changing roles, responsibilities and organizational relationships at Y-12. These changes impact procedures.

Brown has worked with procedures for 11 of the 22 years she has been with Y-12. In her spare time, she and her husband enjoy riding their motorcycle with friends.

"Also," said Brown, "I am a huge Lady Vols basketball fan."



# The penguin has landed at Y-12

**B**y huddling together, emperor penguins endure extreme antarctic conditions that would be unsurvivable solo. Working together to achieve results impossible separately is the idea behind the new computer cluster recently procured by Y-12. The cluster, an Altus model, was manufactured by Penguin Computing.

A computer cluster is a group of stand-alone computers linked by software and networking technologies to create a unified system. Clusters can do the work of multimillion-dollar supercomputers at a fraction of the cost. By using powerful Linux clustering software, the cluster acts like a single system.

According to Abe Mathews of Statistical Applications, "Runs that previously took multiple days on a standard desktop computer can be done in hours on the cluster. This will allow for faster turnarounds on critical calculations, or for more detailed studies of proposed changes to systems."

Andrea Zava, acting division manager of Quality Assurance, observed, "This technology improves nondestructive evaluation and diagnostic capability and could save a significant amount of pro-

cessing time for new weapon programs, enhanced surveillance and quality evaluation."

Organizations from across the site can make use of the Y-12 cluster. Applications requiring the capability include NDE image reconstruction, particle movement simulation, molten metal behavior simulation and image rendering.

The project to procure the cluster was funded by Campaigns' Advanced Simulation and Computing program managed by Jim Snyder. "The technologies developed with the computational capability of the cluster support the goals of a transformed stockpile and Nuclear Weapons Complex. Y-12's purchase of the cluster will enable continued development of the in-house expertise in high-performance computing required to support these important mission-related strategies," said Snyder.

The project team included members from Campaigns, Directed Stockpile Work, Technical Computing, Technology Development and Quality Assurance.

For inquiries about the cluster, contact Mathews (a7e; 241-0855) or Vincent Lamberti (6v; 574-5930).

## Locksmiths provide keys to success

With the moves to the Jack Case and New Hope centers complete, it is easy to see how much work and effort went into the moves. Even the smallest details received great attention. One important detail was the vault-type room and limited area locks necessary to establish secure areas in the JCC.

Y-12 locksmiths Walter Lavender, Bruce McMillian, Bill Miller, Boyd Peters and Ed Rivers, along with Wesley White, a Y-12 planner, provided outstanding support to ensure the secure areas in the JCC were properly established.

"They worked hard and were willing to make suggestions to help us establish secure areas in a timely way," said Patrick Thomas, Y-12 Lock and Key Program manager. "The knowledge they possess of their craft and their ability to meet our deadlines while balancing additional obligations were truly impressive."

The JCC houses multiple VTRs and LAs, and the locksmiths reconfigured all the VTR X 09 locks and LA locks in a way that ensured compliance with U.S. Department of Energy requirements. White completed all the planning work for the job packages.

Because of their success, the group was recognized recently by Butch Clements, vice presi-

dent of Safeguards and Security, and Bill Klemm, vice president of Facilities, Infrastructure and Services.

"I want to thank each of you for the tremendous job you guys do everyday, but especially for the work you completed in the Jack Case Center. You're unsung heroes and this could not have been possible without all of you," said Clements at a recognition ceremony held in August at the Lock Shop.



In the Y-12 Lock Shop from left to right are Bill Klemm, Butch Clements, Bruce McMillian, Boyd Peters, Patrick Thomas, Ed Rivers, Bill Miller, Darrell Poteet, Walter Lavender and Wesley White.

# GIVE TAKE

Last fiscal year Y-12 reused or recycled almost 75 million pounds of potential waste—everything from batteries and fire extinguishers to used lamps and asphalt. And now there's a new program that's even more efficient: Product Exchange.

"It can be something as simple as a bottle of 409," said Laura Cunningham, Environmental Compliance engineer. "There was no system in the plant to trade products that were being thrown out. This gives people an opportunity to acquire materials—for free—that are already in the plant."

Product Exchange operates through an in-house website (search under "P" for Product Exchange on the YSource index). Items like paint, epoxy resin and hardener, and mineral oil are already listed, just waiting for a taker; by the same token, employees can post extra supplies and move them into the hands of people who can use them, which provides an overall cost savings to the Y-12 Complex.

Cunningham says the program is a great way to save budget dollars. In addition, she said, "This will help people clear their areas of unneeded chemicals, which keeps areas less cluttered, reduces the potential for storing materials beyond their shelf life and makes the chemical inventory process easier by having fewer materials to track."

Product Exchange, which is for chemicals, operates much like the Swap List which is also an in-house exchange system for materials such as furniture and office supplies.

Product Exchange is just the latest idea in more than two decades of environmental effort at Y-12. Jan Jackson, Y-12's Pollution Prevention Program coordinator, said Pollution Prevention began as Waste Minimization in the early '80s. The program has grown steadily, and last fiscal year's reuse and recycling meant a cost avoidance of more than \$2.4 million, as well as a cleaner environment. It's all a matter of give and take.

## Starr helped us win

Chauncey Starr came to Y-12 early in 1943 at the direction of Ernest O. Lawrence. His job was to determine which laboratory developments would be incorporated at Y-12 and which would not. Starr made the design decisions and also "ran the pilot plant," as he put it.

"The Pilot Building," 9731, housed two alpha calutrons and two beta calutrons. The alpha units were on the south end of the first floor high bay; the beta units were on the north end. Unlike other Y-12 calutrons, which were configured in a racetrack formation, the Building 9731 magnets were surrounded with laminated metal bands about two feet thick.

Although the control panels have long since been removed from Building 9731, the calutron magnets remain. Standing like silent sentinels of the Manhattan Project, they are testimonies to a time when one man, Chauncey Starr, brought his knowledge, experience and skill to bear on the world's fear that Germany's Adolph Hitler would develop the atomic bomb first.

During Starr's tenure, Y-12 was under tremendous pressure to get the precious Uranium-235 material separated and delivered to Los Alamos so the atomic bomb could be fabricated. Starr met regularly with superintendents of the other calutron buildings to discuss how to raise production levels.

"It was a great experience, exciting and worthwhile," said Starr, commenting on his time at Y-12.

Starr died this past spring at the age of 95.

Do you have a story to tell? Contact Ray Smith (srd; 576-7781) with suggestions for future stories of Y-12's unique history and heritage.



## Join the Y-12 team in Buddy's 5K Race Against Cancer

Looking for a fall race? Then make plans to join the BWXT Y-12 team at the 14th annual Buddy's 5K Race Against Cancer on Nov. 11, 3 p.m., in World's Fair Park.

To date, Buddy's Race has raised \$2.3 million with every penny being donated to the Thompson Cancer Survival Center. Funds are used to provide free or low cost cancer screenings and education to East Tennesseans who may not be able to afford these important, potentially life-saving tools.

Y-12 team captain Elijah Shekinah calls on all employees and their family members to join the race team and run or walk the 5K in downtown Knoxville to support this cause. Shekinah challenges Y-12 to raise \$3,000 in addition to the \$1,000 the company has donated. Contact Shekinah (e79; 241-5319) for more information.

# BWXTymes

Volume 7, No. 9

September 2007

<http://www.y12.doe.gov/news/bwxtymes.php>

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

#### Managing Editor

Melissa Leinart  
865-574-1621 (6ml)

#### Associate Editors

Amy Alley  
Heidi Spurling  
Layout

Lisa Harris

PRSR  
STD  
PAID  
U. S. Postage

Permit #36  
Powell, TN

#### Contributors

Campbell Cloar  
Kathy Fahey  
Amanda Forrester  
Amy Harkey  
John Holbrook  
Jamie Loveday  
Brett Pate  
Gail Powell  
Cindy Robinson  
Sandra Schwartz  
Ray Smith  
Bill Wilburn

Join or contribute to the Y-12 American Diabetes Association Team, and help the team reach its \$5,000 goal. To participate in the Oct. 20 walk or to donate, contact Scott Chippendale (uz5, 574-1258).

## Pat Summitt to launch United Way Campaign

Pat Summitt, known as “the winningest coach in history,” will tip off Y-12’s 2007 United Way fund drive Oct. 9 at 10 a.m. The University of Tennessee Lady Vols basketball coach is a master motivator both on and off the court; when she chaired Knoxville’s United Way campaign in 1996, she led them to achieve their goal. After her inspiring talk, she’ll sign basketballs to be auctioned off at the end of the rally.

Former Y-12 plant manager Gordon Fee will also be on hand, as will the National Nuclear Security Administration’s Y-12 Site Office Manager Ted Sherry and Y-12 President and CEO George Dials. Fee will be working with this year’s Retiree Giving campaign.

This year’s goal is to increase employee participation by 10 percent. Donating will be easier than ever thanks to new contribution “ecards” that make it simple to sign up online.

The Days of Caring in October will include collecting cell phones for Blount County’s Haven House, coats for the Volunteer Ministries and food for the Second Harvest Food Bank. There are also plans for a holiday toy drive and to collect for Aid to Distressed Families of Appalachian Counties.

The fund drive kickoff will take place in the Jack Case Center courtyard, where free refreshments and the traditional bake sale will be a part of the celebration.



Pat Summitt