

NNSA authorizes restart of key Y-12 facility

Process is final step to full production operations

The final process in the Y-12 National Security Complex's ability to produce purified uranium metal is back in operation after being shut down for more than a decade.

Bill Brumley, Y-12 site manager for the National Nuclear Security Administration, has given BWXT Y-12 authorization to restart the oxide conversion facility. Oxide conversion is a process that converts uranium oxide into a uranium compound called green salt, which is then converted to uranium metal.

Startup of the oxide conversion facility means that Y-12 has taken the final step to return to full production operations.

"This is an important step. That last piece of the puzzle is now in place. It's been a lot of hard work by a lot of people, both on the part of my staff and BWXT Y-12. I want to thank every one of them for their dedication and determination in achieving this important milestone," Brumley said.

Dennis Ruddy, president and general manager of BWXT Y-12, said restart of the facility is a "big step for Y-12. With all the pieces in

place, it means that we are once again a fully operational manufacturing facility. We are going to go forward in all phases of operations while executing them safely and securely."

The oxide conversion facility was shut down in 1992 following an accidental release of hydrogen fluoride, a hazardous, corrosive gas.

Since the shutdown, a new oxide conversion facility was designed and built incorporating new equipment and state-of-the art safety systems to contain any potential releases of the material.



Bill Brumley (left), Y-12 site manager for NNSA, and Dennis Ruddy (right), Y-12 president, sign the oxide conversion facility restart authorization.

Organizational changes



Kohlhorst



Reed



Liedle

Y-12 President and General Manager Dennis Ruddy has named a second deputy general manager and a new manager of Manufacturing.

Darrel P. Kohlhorst was named deputy general manager for Operations. Kohlhorst previously was the manager of Manufacturing.

Leslie L. Reed, who was deputy manager in Manufacturing, will succeed Kohlhorst as Manufacturing manager.

Organizationally, current Deputy General Manager Steven D. Liedle now will hold the position of deputy general manager for Programs.

Kohlhorst holds a bachelor's degree in aeronautical engineering from Ohio State University and a master's degree in Applied Mechanics from the University of Virginia.

Reed holds a bachelor's degree in fire protection and safety and a master's degree in Industrial Engineering both from Oklahoma State University.

yes. board announced

Y-12 Employees' Society

New officers and board members for the Y-12 Employees' Society have been elected.

Officers

- President—Thomas Watson, Manufacturing
- Vice President—Ala Montgomery, Facilities, Infrastructure and Services
- Secretary—Sue Toler, Public Affairs and Communications
- Treasurer—Wanda McCrosky, Financial Management

Board Members

- Social—vacant
- Discounts—Gina Davis, Applied Technologies
- Travel—Lisa Harris, Public Affairs and Communications
- Sports—Pete McKenzie, Applied Technologies
- Membership—Patrick Mountain, Applied Technologies
- Publicity—Alice Brandon, Public Affairs and Communications
- Members at Large—Yulonda Bowen, Facilities, Infrastructure and Services; Brenda Jones, Manufacturing

Denny's desk

March Madness taught us some tough lessons



With the recent NCAA Basketball Championships behind us, there are some tough lessons we can take away from them. The Lady Vols were for all intents and purposes considered the favored team leading into their match with Michigan State. With Pat Summitt as

the most successful and dominant coach in women's basketball, it seemed a natural assumption that Tennessee would make it to the Championship game and probably go on to win the title.

So, what happened? A lot can be learned from Coach Summitt's comments after the loss and believe it or not, some of it can be applied to us here at Y-12.

"I thought we lost our composure at times," Summitt said. "I thought we were on our heels. I don't understand it."

Most of what Coach Summitt commented on was basic fundamentals. We work every day to ensure safety, security and quality at Y-12, but if any one of us loses sight of the fundamentals of doing quality work safely with security in mind, we can easily endanger the outcome.

We have proven in recent years that we are the best in the complex. We are proactive, making things happen and pushing the envelope on finding ways to work more efficiently by working smarter and with less cost. But, even the best team can lose sight of the fundamental things that got them there in the first place.

"It's not how we played in getting here," was another of Summitt's post-game comments. We each need to remember this one, because if we forget the things we have done to get us to this point and start to lose our drive, we could find ourselves in the same situation as the Lady Vols in that Final Four game. We already have an excellent team and if we continue to focus on our strengths and what has gotten us this far, there is nothing we can't accomplish.

Clean out those closets for United Way!

Although you may not find Long John Silver's lost Pieces of Eight at our next special event, you may find just the treasure you have been looking for.

The next special event for the Y-12 2005 United Way Campaign is a garage sale. This sale is open to employees, family members and community members and will be held at the Crown Court in the Oak Ridge Mall.

Mark your calendars for May 20, 3 to 7 p.m. and May 21, 7 a.m. to 1 p.m.

Employees making donations of items to be sold can receive upon request a receipt for tax purposes.

Go ahead and clean out the closets, garages and kids' rooms, and donate all that stuff to the Y-12 Community Garage Sale.

A collection point—a 53-foot white trailer parked just east of Central Portal—has been set up.

Donated items should be placed just inside the trailer or underneath the trailer. To reduce the chance of injury, employees should not climb into the trailer. United Way staff will move the items to the front of the trailer daily. Any items not sold during the garage sale will be donated to the local Goodwill.



Y-12 in the NEWS

Y-12 supports ANS

Y-12's Safety Analysis Engineering organization recently contributed \$2,500 to help fund an American Nuclear Society's topical meeting scheduled for September, which will be the first time the ANS Nuclear Criticality Safety Division has held a topical in East Tennessee.

The theme for the 4-day meeting is "Integrating Criticality Safety into the Resurgence of Nuclear Power."

Dennis Ruddy, Y-12's general manager, and Chris Robinson,

Y-12's chief nuclear criticality safety engineer, presented the check to the society during the Oak Ridge/Knoxville chapter's February dinner meeting. Robinson is a corporate sponsor committee member for the topical and is actively recruiting sponsorship from local and national companies.



Sedat Goluoglu (left), ANS Topical Meeting chairman, accepts a \$2,500 check from Dennis Ruddy as Y-12's sponsorship of this year's meeting. They are joined by Y-12 Engineering's Chris Robinson (right).

For Beta, the test was one of survival

The American kestrel, a pigeon-sized bird of prey, was found a few weeks ago inside Building 9204-1—a World War II-era facility known as Beta-1. The building originally was used to enrich uranium for the A-bomb dropped on Hiroshima, Japan.

Nobody knows how the hawk bypassed security and got inside the Y-12 facility, taking up residence in a high bay area. But she apparently landed in an oil pan atop a large crane and got her feathers sullied to the point that she couldn't fly.

Larry Brantley, an industrial hygienist, was first to spot the bird, and Ron Wilson, the building manager at Beta-1, tracked her down.

Brantley took the hawk, nicknamed "Beta," to the Clinch River Raptor Center in Clinton, where she was given a few baths and de-oiled with citrus cleaner. On March 17, Beta was returned to Y-12, near the site where she was found, and released to the wild.

—Condensed from the *Knoxville News Sentinel*, March 25, 2005



Y-12 staff honored

Y-12 staff garnered eight awards from the East Tennessee Chapter of the Society for Technical Communication at the annual awards banquet on April 1 at The Foundry.

Distinguished award

Newsletter category: *Safeguards and Security Sentinel*
Kathryn King-Jones
Sandra Schwartz
Betty Martin (all of Public Affairs and Communications)

Excellence award

Newsletter category: *BWXTymes—February 2004, April 2004 and June/July 2004*
Melissa Leinart
Kathryn King-Jones
Betty Martin (all of PA&C)

Promotional materials category: *The Renewed Spirit of Y-12*

John Holbrook (PA&C)
Amy Bush (PA&C)
Bill Gubbins (subcontractor)

User support tools category: *YSource—Home for Information and News at Y-12*

Ken Davis
John Getsi
Donna Griffith (all of PA&C)

Reference material category: *Infrastructure Reduction Web Site*

Lisa Harris
John Getsi
John Holbrook (all of PA&C)

Merit award

Newsletter category: *Engineering FOCUS*
Beth Eckerman (PA&C)
Pam Horning (Enriched Uranium Manufacturing Facility)
Donna Watson (PA&C)

Magazine category: *The Renewed Spirit*

Patrick McCoy (PA&C)
Sandra Schwartz (PA&C)
Jim Holland (Planning and Integration)

Technical marketing category: *Pollution Prevention Web Site*

Jan Gilbert Jackson (Environment, Safety and Health)
Aprell Patterson (ES&H)
Stuart Hames (PA&C)



Productivity and Process Improvement

Less handwriting and less exposure go hand in hand

When you think about reducing the time workers spend in radiological areas, cutting down on handwriting time may not cross your mind. However, put yourself in the place of people who verify amounts of accountable material. These workers are in areas where they must wear protective clothing. Reducing the time spent in such areas may depend on how long they spend recording data.

Paige Long, a Yellow Belt candidate in Quality Assurance, became aware that workers were spending 30–45 minutes to complete each page of longhand entry as they audited accountable material. After talking with Nuclear Materials Control and Accountability engineers, she believed the time could be reduced by at least 15 minutes per page.

The remedy was to add system-generated information to the prepared electronic spreadsheets so the data didn't have to be entered by hand each time. Steve McGuire, a statistician in NMC&A, wrote the software for the new inventory verification confirmation program. Even though the programming was extra work for McGuire, he says, "The effort was fun for me and well worth the time spent. Paige did a super job of getting people in the field involved, and we found a way to get the job done."

The primary benefits are less radiological exposure, less time spent in cumbersome protective clothing and less probability of error. Lower cost is an added benefit because of the reduced work time. Since the auditing effort involves about 60 pages of data, about 15 hours can be saved each year in this area.

NMC&A engineers will provide feedback after each measurement period to ensure continuous improvement of the system.

Long adds, "People are glad to be out of the radiological areas quicker. It's not easy writing with three pairs of gloves on your hand!"



Steve McGuire, Paige Long, Harold Wheat Jr. and Carl Malveaux worked together to add system-generated information to electronic spreadsheets, which reduces the time spent entering data by hand.

Productivity and Process Improvement— Developing Y-12 Leaders

The Productivity and Process Improvement organization will soon begin adding four new Six Sigma Black Belts to their team.

Black Belts at Y-12 are temporary assignments within the PPI organization. These positions rely on a two to three year commitment from employees. Personnel hired for Black Belt training join PPI for the duration of their training (approximately six months) and then for full-time implementation (two years).

When their time is up, Black Belts reintegrate to Y-12's workforce. Six Black Belts currently full time in PPI will be taking new positions in the next year.

"Once Six Sigma, always Six Sigma," states Michelle Culp, PPI manager. "Once you have undergone the intense training and then breathe process improvements for more than 40 hours a week, I don't think you ever leave it fully behind. Several of the Black Belts that have reintegrated remain connected in some way to Y-12's productivity initiatives."

PPI will hire four new Black Belts, who will begin training in October 2005. Training is held at Bechtel National in Freder-

ick, Md. one week a month for six months. Trainees are taught by Master Black Belts from multiple Bechtel Business Units (including Y-12's Master Black Belt in Training, Barry Totten). The training attracts a diversity of participants to include trainees from sites such as Savannah River Site, Idaho National Engineering and Environmental Laboratory, Nevada Test Site, Yucca Mountain and others.



Y-12's Master Black Belt in Training Barry Totten (left) is helping Henry Lynn (center) and Bill Scheib (right), Y-12's newest Black Belt candidates, complete two Process Improvement Projects.

Contact Michelle Culp (574-6634) for further information.

Y-12 new hires access information faster

Until recently, salaried personnel that were newly hired could wait as long as two weeks for computer access. The divisions to which they were assigned were not always immediately establishing user ids and passwords for them. Without a user id and password, these new employees could not access electronic media and information, such as Web-based training, policies and procedures and e-mail.



Thanks to a recent Yellow Belt Process Improvement Project, requests for user ids and passwords for new hires are made the day they report to work.

Now, password requests for access to e-mail and SAP are made on the day the new employee reports to work. By making the password request on the first day, employees are able to access standard office tools such as e-mail, YSource and electronic procedures once they have completed new employee orientation. This quicker access also relieves supervisors of printing large amounts of material, since the new employees have access to the electronic documents.

and Process Improvement organization assisted with the cost calculation and validation.

“Having computer access and user ids enables the employees to begin working immediately. Not only can they complete much of the Web-based training, but they can be connected to information on YSource. Being able to communicate is critical to feeling that an employee is part of the Y-12 family,” Alexander said.

The “birthright access” process was championed by George Dailey, manager of Information Systems and Technology, and Susan Alexander, Resource Management manager. They recognized the password delay as a problem long ago and have worked several years to develop the revised process.

Birthright access was successfully implemented in early December 2004, and the annual cost savings from reduced employee downtime is nearly \$250,000 (actual cost savings depends upon the number of exempt salaried personnel hired). The Productivity

Value Engineering and Six Sigma mix well together

With renewed interest from the Department of Energy in using Value Engineering principles to hold down costs across DOE projects, Y-12’s Six Sigma black belts in Productivity and Process Improvement are planning to incorporate the best ideas from both VE and Six Sigma to increase cost savings for the site.

PPI Manager Michelle Culp and Black Belt Lloyd Jollay recently returned from a workshop in Washington, DC, designed to help Nuclear Weapons Complex sites integrate Six Sigma productivity tools with DOE’s VE initiative.

“We were able to form a core team, get a better understanding of each tool set, and

identify places where cross over and sharing can occur,” Culp said. “Of additional value to us was having DOE recognize Six Sigma as a viable productivity tool and getting agreement to accept these projects for reporting required to meet the DOE’s Value Engineering policy.”

DOE has an organized VE effort directed at analyzing the functions of systems, equipment, facilities, services and supplies for the purpose of achieving the essential functions at the lowest life-cycle cost consistent with required performance, quality, reliability and safety. The terms value analysis, value management and value control are considered synonymous with VE.

Since 1993, DOE, including National Nuclear Security Administration, has been required to use VE as a management tool to ensure realistic budgets, identify and remove nonessential capital and operating costs, and improve and maintain quality of program and acquisition functions.

Following recommendations made in Inspector General reports in 1998 and again in 2001, DOE and NNSA have now placed increased emphasis on including VE techniques and processes as an integral part of the overall program or project delivery process for specified projects.

Culp was named as Y-12’s representative on the new Value Management subgroup for the Energy Facility Contractors Group’s Engineering Practices Working Group.



Fundamentals—Live by principles, not just rules

Never compromise—Fundamental 6

Craig Ferguson, Environment, Safety and Health division manager, is the management champion for Fundamental 6—Never Compromise safety, security or quality for speed or ease. Ever.

“Compromise” means to allow your principles to be weakened or your standards to be lowered. At Y-12, our fundamentals form the foundation for all we do. We cannot compromise safety, security or quality in our business, for speed, for ease or for any other reason.

As the plant modernizes, we have to look at new and different ways we can accomplish our work. We must know the difference between getting the work done within the bounds of our fundamentals and when we are wandering outside our fundamentals.

How do you know when you are outside of your fundamentals or principles? You can feel it, or a co-worker points it out to you if they can feel it. The further you are from your fundamentals, the more uncomfortable you feel.

There are many ways to ensure the safety, security and quality of an operation, activity or task, but we should never compromise for speed or ease. Ever.

Sometimes it's faster to work a little slower and get it right the first time. Often when we hurry, we make even more work for ourselves.

KEEP IN MIND ...

- Sometimes you have to make a conscious effort to get a good balance of opposing forces.
- If you don't have time to do it right the first time, when will you find the time to do it over?
- Don't multi-task yourself to death. Although it's nice when you can do more than one thing at a time, multi-tasking can leave you feeling harried and lead to careless mistakes.
- Hold safety, security and quality in the highest regard.
- Ask questions; don't just accept.

How much rework have you done in your life because you compromised for speed?

Like Pat Summitt's Lady Vols, stop and get back to the fundamentals when you are not executing properly. Never compromise safety, security or quality for speed or ease. Ever.

Fundamental 7—Process improvements = change

But since work process changes are error-prone, document changes, confirm results.

Engineering Division Manager John Gertsen is the management champion for Fundamental 7.

Change.

What one person sees as an improvement, someone else may view as a deviation. It's a change, but rarely is it only a change. Often change has a perceived value as either good or bad.

So what should we do?

Be an advocate for change. To improve things, we must make changes. That's the first part of this fundamental. At Y-12, we are constantly changing—improving our work processes and business systems. We look for ways, every day, to be more able, agile and affordable.

Y-12's modernization efforts—new facilities, new equipment, demolition of old buildings, the changing Y-12 footprint—will realize many of these improvements.

Change introduces the possibility for error. That's the next part of the fundamental. We are human, and

7. Process improvements = changes



John Gertsen
MANAGEMENT SPONSOR



The Y-12 Fundamentals Live by principles, not just rules

mistakes are inevitable. And sometimes it's not an error that can cause a problem, but rather an unforeseen effect.

Fortunately—because we are human—we can learn from our mistakes.

Finally, be careful and deliberate, and use established change-control systems. Y-12 has systems in place to help us. We must use these systems when making changes. These systems have lessons learned from past mistakes built in, and checks and balances established, to help guide us through the change process. These systems make us document our changes and confirm our results.

Making Y-12 roads safer

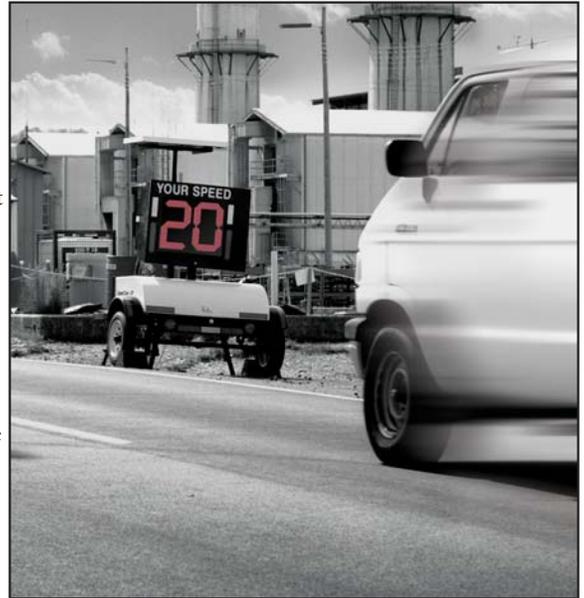
Anyone who drives along Bear Creek Road knows Y-12 is taking measures to reduce speeding.

Y-12 expects the workplace to be free of recognized hazards. Speeding is an at-risk behavior and a personal choice that has a potential impact on other, innocent Y-12 personnel.

How are we making our roads safer? First, Y-12 is stepping up its efforts to promote awareness of the dangers of speeding. Second, new surveillance devices are being put in place. Third, the consequences for those who violate the speed limit will be serious.

To deter speeding, Y-12 is putting in place surveillance devices like the traffic speed display trailers that are commonly seen along roadways and the light distance and ranging instrument, known as LIDAR. The trailers alert drivers in large flashing numbers to how fast they are going; the equipment may also include a portable speed camera that identifies the person behind the wheel and the license plate number. The LIDAR detector works similarly to radar.

Being safe means observing all signs, including posted speed limits. It makes good safety sense for each of us to slow down and obey the speed limit.



Surveillance devices like the traffic speed display trailers are being used at Y-12.

Do you have a story to tell?

Have you or someone you know been involved in a car accident where wearing a seatbelt made a major difference? If so, are you willing to share your story with Y-12 employees? The *BWXTymes* wants your story for an upcoming feature on seatbelt safety.

Send a brief account of your story to Melissa Leinart, 6ml, or call her at 574-1621 to discuss.

Look for seatbelt safety stories in upcoming issues of the *BWXTymes*.

Bad Signs!

The smoke has cleared—no smoking inside buildings

Lynda Howard of the Facilities, Infrastructure and Services organization noticed these outdated signs. She writes:

“While in a meeting at 9203 Googin Auditorium, I noticed signs on one wall that read ‘No smoking’ and signs on the opposite wall read ‘No smoking in this section.’ All signs should be removed, as smoking is not allowed inside any building at the Y-12 site.”

Lynda will receive a Y-12 golf umbrella. If you notice a confusing or outdated sign at Y-12, forward the location of the sign along with a brief description of the wording to Melissa Leinart (6ml) of Public Affairs and Communications or via telephone at 574-1621. If your example is used in a future issue of the *BWXTymes*, you too will receive a Y-12 golf umbrella.



Plans for Safety Expo are under way

The fifth annual BWXT Y-12 Safety Expo, “Safety is FUNDamental,” will be held June 22 from 7 a.m. to 4 p.m. at the Oak Ridge Mall.

The Safety Expo is an exhibition of information, equipment, supplies and success stories that promote health and safety both at home and at work. One way to foster safety as a value at Y-12 and in the surrounding community is to share safety- and health-related lessons learned and success stories.

Through exhibits, Y-12 employees will have an opportunity to share how they are improving their performance in the safety and health areas. Vendors will be on hand to exhibit and demonstrate their safety- and health-related products and equipment.

Committee members are currently looking for volunteers to help with registration, children’s activities, logistics and judging. If you would like to help, contact Preston Cloud (pc9) at 241-6054 or Mona Wright (magg) at 574-0075.

Manhattan Project reunion planned

To commemorate the 60th anniversary of the end of World War II, Oak Ridge is inviting Manhattan Project veterans and their families back to participate in the Manhattan Project Family Reunion during the Secret City Festival, June 16-18.

"This reunion is a unique effort to honor those who took part in the most significant event of the 20th century," said Joe Valentino, executive director of the Oak Ridge Convention & Visitors Bureau. "We're inviting veterans and family members from the three major Manhattan Project sites: Oak Ridge, Los Alamos, N.M. and Hanford, Wash."

On June 16, the Museum of Appalachia will kick off the event with a look at life in the valley before the dramatic changes of the Great Depression and World War II. Oak

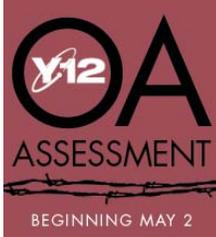
Ridge will begin the celebration at the world premiere of the documentary "Secret City: The Oak Ridge Story."

Activities will take place throughout the weekend, including performances by national acts Jan and Dean on Friday night and Bill Haley's Comets on Saturday night, a speaker series at the American Museum of Science and Energy and a World War II reenactment and living history display.

Other activities include first-time-in-history tours of the Beta 3 Calutrons at the Y-12 National Security Complex, rides on the Secret City Scenic Excursion Train (taking visitors through the gates at K-25) and the official dedication of the Secret City Commemorative Walk.



Activities are not limited to veterans of the Manhattan Project. History buffs, visitors, families of these veterans and anyone with an interest is encouraged to attend. Visit www.manhattanprojectfamilyreunion.com or call 482-7821 for more information.



Y-12 OA ASSESSMENT

The Office of Independent Oversight and Performance Assurance will visit Y-12 beginning May 2. Be prepared for the visit.

Planning and data collection
Data collection
Performance testing, report writing, validation and closeout

May 2-6
May 16-20
June 6-17

BWXTymes

Volume 5, No. 2

April 2005

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