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Employee teams stepping up to improve safety

Volume 8, No. 11

November 2008

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.

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NO dummy



Thanks to an employee team meeting, Kimberly Mitchell of Production is trained in cardiopulmonary resuscitation.

when it comes to safety

“Being in the moment” is a phrase all employees have heard as a result of employee teams, a concept initiated in April by Environment, Safety and Health (ES&H). Employee teams strive to improve safety at Y-12 by changing people’s behavior.

Recently, *The Y-12 Times* editors sat down with Michelle Reichert, vice president of ES&H; Doug LeVan, manager of ES&H Performance Improvement; and Vicki Walls, the ES&H employee contact for teams, and asked them to share the progress of employee teams.

1 Why did we need employee teams?

Reichert: Our 2007 safety record had many behavior-based injuries. People weren’t present in the moment. We had success from the employee teams that tackled issues in the President’s ES&H Forum. Employees were coming up with solutions to things such as reducing overexertion injuries, improving the Clean Sweep program, addressing RadCon frisking issues, restructuring Behavior-Based Safety (BBS) and creating a wellness program.

LeVan: So, we went the next step and placed all employees on teams. Teams were formed using the most logical approach—function, geographical location or organization; we wanted employees who briefed together, worked together, took breaks together and ate lunch together to be on the same team. Teams are not only identifying and changing behaviors that lead to improved safety; they are removing barriers that influence the unwanted behaviors.

2 How have employee teams improved Y-12’s safety record?

Reichert: There’s a heightened awareness of safety. Employee teams are working together and addressing issues and concerns that are common to all team members. Far fewer people are getting hurt. [See chart on pg. 2.]

3 More than 1,600 employees are located in new buildings, so there are bound to be teams working on similar, if not the same, issues. How do you plan to handle the duplication of effort?

Walls: We are establishing core teams for both the Jack Case and New Hope centers to eliminate duplicated effort. The core teams coordinate and facilitate communication within the buildings.

See EMPLOYEE TEAMS, pg. 2



LeVan: Some issues, especially those that deal with a leased facility, take more time and effort to get resolved, but we are actively working them. Forming core teams should reduce the time to resolve issues.

4 How are issues resolved if employee teams can't solve them?

Reichert: Issues that get pushed to the president's level are usually addressed in the President's ES&H Forum. Several employee teams were concerned about traffic onsite, so we formed the traffic safety team at the Forum. The wellness team is another example. The members on that team helped in the interview process of our new wellness coordinator.

If an issue obviously can't be solved by an employee team, my peers and I tackle it. A recent example was installing the French drains to fix standing water on the pavement outside of Jack Case and New Hope. The fix was not in our budget planning, but we worked together to solve the problem.

5 How do you plan to communicate the results, efforts and successes of employee teams?

LeVan: We're finalizing an employee teams' website [watch YSource for launch date]. It has a lot of information available. We also send an employee team newsletter to employee team leads with monthly topics, updates on programs and teams, lessons learned, input from the Atomic Trades and Labor Council and Knoxville Building and Construction Trades Council, and summaries of key injuries our employees have suffered.

Walls: On the website, we also list success stories, have an employee team "toolbox" where teams can get more information about the tools available and a list of frequently asked questions. There's a lot of information there, and we hope each team reviews it with their team members. I'm only a phone call or e-mail away and will be happy to address any questions.

LeVan: Employees can also contact Sam Lariviere (ES&H). He is a valuable resource as teams evolve and we try to sustain their growth and impact.

6 In most cases, new programs have nay-sayers. For employees who think employee teams are just a passing fancy, what do you say to them? How do you win them over?

Reichert: It's a legitimate question. We're in our fifth year of BBS, and we know the only way it's going to work is to get employees involved daily. Our scope will evolve but getting people involved is not going to go away. We're winning converts as we go.

LeVan: With employees being on a team with those people they work with daily, they have a vested interest. You have a relationship with those people.

Reichert: Teams have a variety of employees—RadCon technicians, engineers and administrative folks—all on the same team, and they all have the same goal: to keep everyone safe.

| | FY 2008 | Percentage improvement over 2007 |
|----------------------------|---------|----------------------------------|
| First-aid injuries | 125 | 6% |
| Recordable injuries | 53 | 26% |
| Lost workday away injuries | 8 | 53% |
| Restricted cases | 3 | 57% |

“... and you genuinely want them [your co-workers] to be safe and healthy.”

Doug LeVan,
Environment, Safety and Health

Models out of dust

People are oohing and aahing over a three-dimensional color printer that quickly and inexpensively brings conceptual designs to life.

The printer, acquired by Engineering, produces a model you can hold in your hand and see if it works in the intended space. “It’s easy to spot inherent design flaws or evaluate the ergonomics,” said Preston Cloud of Engineering.

Amazingly, the printer (measuring about 3.5 feet wide by 5 feet tall) creates an object by building layers of chalky toner. Out of the dust, a shape slowly emerges. The bone-dry object is then treated with an instant glue or hot wax for stability. Although dimensions of each piece are limited by the size of the printer, pieces can be joined to create a larger object.

Printing a prototype may take five hours or so, but that is faster and cheaper than a full-fledged fabrication. Adjusting the design at this stage is much more cost effective than later on.

Engineering also has a 3-D scanner for reverse prototyping. If the printer brings designs to life, the scanner does the reverse—creating as-built drawings from objects. One use that excites engineers is scanning containers before and after drop tests to record any damage and compare it with computer model predictions.

The printer has produced prototypes for Directed Stockpile Work, Work for Others and the Uranium Processing Facility.



Preston Cloud and Drew Winder (left to right) are two engineers using the ZCorp 3-D printer to create models like those in the foreground.

Challenges in the field

There is a cluster of trailers at the west end of the plant where employees in hard hats are involved in constant activity. Phones ring, pagers buzz, doors swing open and shut, and drawings are unrolled and studied. It’s one of many busy mornings for David Stapleton of Highly Enriched Uranium Materials Facility (HEUMF) Construction.

Stapleton is a subcontract technical engineer, which means he is the field engineer in charge of direct hires and subcontractors who were involved in constructing the fortress known as HEUMF.

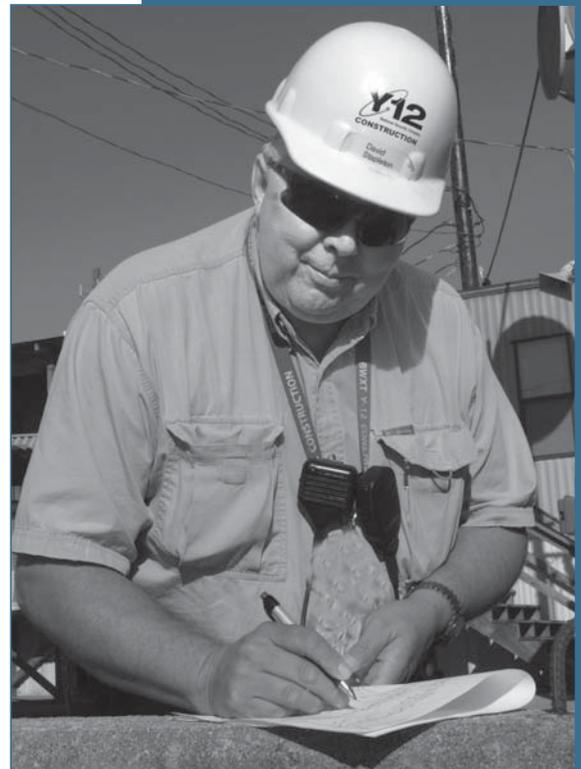
His job is to provide field direction and make sure all construction adheres to the design drawings and specifications. For more than three years, he has worked on the HEUMF construction project; he’s been at Y-12 since 1984.

When asked if the pace has slowed since completion of the HEUMF building, Stapleton laughed and said he is “busier than ever.”

Stapleton loves his job because he likes interacting with people. He enjoys the feeling of accomplishment that comes from seeing a project start at ground level and then grow to completion, especially when the project grows on as grand a scale as the HEUMF.

Every day provides challenge. The main challenge is keeping up with the demands of the schedule. His personal challenge is to make sure work is done safely and securely.

Stapleton likes knowing “what we do helps protect the security of our country.” To maintain the security and integrity of the plant is his goal, and he is eager to put on his hard hat and meet that challenge every day.



David Stapleton is always thinking about safety and the welfare of the people around him.

INTEGRATING security with design

The newly completed Highly Enriched Uranium Materials Facility (HEUMF) is quite an impressive site. What isn't readily apparent when looking at the facility is the behind-the-scenes efforts to integrate security into the facility design.

Dexter Beard of Safeguards, Security, and Emergency Services (SS&ES) ensured a focus on designing systems into the facility that would achieve mission success and allow the Protective Force to do their jobs and go home at the end of the day.

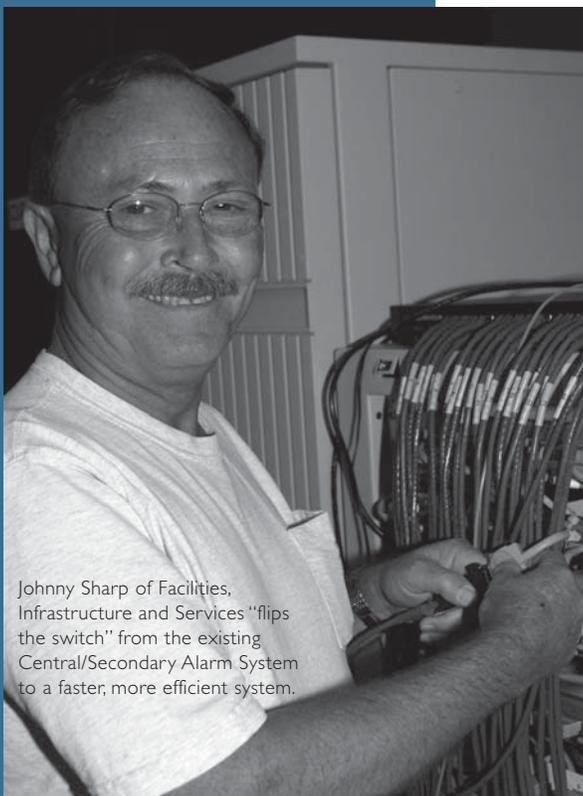
"We didn't want to 'bolt on' security ... to have a finished facility turned over with the request to protect it. We wanted security built into the facility from the beginning," said Beard.

Taking that approach required placing security personnel on the appropriate teams, performing analyses of various options and completing multiple design reviews. According to Beard, the result is a flexible system that may be modified to accommodate changes in the threat scenarios and incorporate new technologies.

According to Beard, "HEUMF's system is highly robust and effective while minimizing personnel, and we're already applying the lessons learned to UPF [Uranium Processing Facility]." That focus on continuous improvement not only yields robust, cost-effective security systems—it yields confidence in Y-12.



With construction of HEUMF complete, Nancy Schwarz and Johnny Johnson will focus on loading the facility.



Johnny Sharp of Facilities, Infrastructure and Services "flips the switch" from the existing Central/Secondary Alarm System to a faster, more efficient system.

NEW SYSTEM, NEW ERA for security

It may seem like a simple thing—flipping a switch and connecting some wires—but switching the operating system for the Central/Secondary Alarm System (CAS/SAS) was a major milestone.

According to one systems engineer, "We couldn't bring HEUMF [the Highly Enriched Uranium Materials Facility] online without the new system. The existing system just didn't have the capacity."

In addition to increasing system capacity, this milestone included other achievements. Use of a certified data diode—a first in the Nuclear Weapons Complex—allows the separation of unclassified and classified data. This separation enhances efficiency, and cost-effectiveness was enhanced by using off-the-shelf software. Also, the new system is markedly faster and capable of producing multiple reports, which will assist engineers with systems tracking and trending.

The essence of the system is that it is based on cooperating equal processors, which minimizes the need for compensatory measures. One of the programmers explained that both processors are fully functioning systems. "If one fails, the switchover simply consists of telling the other operator that he's the primary responder."

Thus far, the results have been favorable. The CAS/SAS supervisor said they are still in the learning phase, but they like the system and its capabilities. "The system is a lot faster, and the graphics are cleaner," the supervisor said.



Audit results in flying (GREEN) colors

In November, Y-12 successfully completed a safeguards and security inspection by the U.S. Department of Energy's Office of Independent Oversight, receiving green (or effective) performance ratings in all topical areas. Ted Sherry, manager of the National Nuclear Security Administration's (NNSA's) Y-12 Site Office, described the inspection as hosting "top-notch security professionals who basically crawled all over the site for a couple of months."

At the inspection's close, Sherry praised the results as "validating hard work throughout the plant." Bill Eckroade, director of Independent Oversight, commended Y-12's vision in making security more sustainable and manageable. Brad Peterson, chief of Defense Nuclear Security for NNSA, also congratulated the site for the "outstanding results," noting that the hard work Y-12 does is "vitaly important."

Compilation and association create classification concerns

You work with primarily unclassified information, so you think you don't really need to worry about inadvertently releasing classified information. How could your unclassified, nonsensitive information cause any concern?

Unclassified information may become classified through **compilation** and **association**. Compilation occurs when several pieces of unclassified information are combined (not necessarily in one document) resulting in sufficient detail to render the final product classified. Association occurs when two or more different unclassified facts are linked, resulting in a classified statement.

Consider this example. You have a subcontractor helping you with technical procedures. To provide some background information, you compile a list of the unclassified procedure titles and send them via e-mail to the subcontractor. Unfortunately, that list creates a classified association in the e-mail. Because the e-mail went outside the site's firewall, the incident is categorized as the highest level of security incident.

How could a seemingly innocuous e-mail result in such a significant incident? It is faulty logic to assume that administrative information, such as unclassified procedure titles, could not become classified information. When compiling or associating information, ask a derivative classifier (DC) to review the content.

Keep your focus on classification. Consult a DC to ensure information is appropriately marked.

READY SET IMPLEMENT

Potential home buyers often hire inspectors to thoroughly evaluate homes before making an offer. Larry Bornstein, Safeguards, Security, and Emergency Services' readiness program manager, brings the same clear-eyed focus to security projects.

Bornstein said, "Our goal is facilitating the successful transition from project to first use." To ensure success, he has developed a program with several tools to ensure all requirements are met and all stakeholders are informed.

More than a dozen projects have fallen under the program's purview in its first year. Significantly, all of these projects, from the automation of Portal 5 to Nuclear Materials Control and Accountability upgrades, have been implemented on schedule.

The program augments the work of the project managers and expeditors by ensuring communications with the appropriate organizational liaisons and stakeholders. "By identifying all requirements and involving stakeholders up front, we are able to minimize rework once the project goes 'hot,'" stated Bornstein.

The program uses other tools to enhance implementation. YSource announcements and videos have aided user acceptance; also, strategically placed staff members assist those accessing new systems during the first few days.

The key to the program is getting all involved parties to communicate earlier. As Bornstein noted, "You have to involve the right people to ensure the solution is not a problem."

Amy Duncan spins her way to being healthier.



Spinning spokes

About a year ago, I decided to become healthier. What I found was that making physical activity and low-fat food choices part of my routine was the key. Now, my energy level has gone way up, and I've lost weight at a slow, healthy rate.

- At work, after I enter the portal, I either bike or walk the rest of the way to my building. The exception is when the weather is bad.
- My favorite foods are starches and fats, but I've learned to control portions. I limit myself to three or four servings of starches and three servings of fats a day.
- About every three to four hours, I try to eat some protein or green vegetables. Protein tends to lower my craving for carbohydrates I love.
- A good breakfast for me is balanced between protein, starch, fruit and dairy. It is a good way to boost your energy for the day.
- About once a week, my family bikes through one of the greenways around Knoxville. Except, you know, when the weather's . . .

Check out www.mypyramid.gov for nutritional information, and make your own plan for a healthier you.

—Amy Duncan, Engineering

Technology Transfer event celebrates ingenuity

Invention disclosures focusing on cyber warfare, criminal-activity detection, explosives containers and vehicle-speed suppression were among the 20 innovations honored at the annual Y-12 Technology Transfer Awards in November.

Neville Howell's wife, Sherri, attended the ceremony as his guest. Howell, an honoree along with Jeff Parrott for a warning device that prevents cell phone carriers from entering phone-prohibited areas, said, "My wife said she sensed she was in a room of talented scientists who were solving problems she didn't even know existed. She also felt a spirit of innovation, creativity and pride in what we are doing."

Bradley Hodges, an honoree along with Bradford Langley for a rotary carousel dense pack storage array, said the ceremony recognized the importance of technological developments. "Without development, industries don't progress and processes remain idle," he said.

Other FY 2008 disclosures included a spill-resistant lid for high-value or contaminated liquids, and a way to use metal isotopes to create lightweight alloys.

Ron Simandl, Gerald Devault and Bob Smithwick, and Roland Seals—recipients of R&D 100 Awards—were recognized for advancements in clean-wipes, spectrometry and nanotechnology.

Two new honors, the Trailblazer Award and the Technology Support Award, were also presented. Two MBA graduate assistants, Ravi Chirravuri and Ned Morgan, received the Trailblazer Award for their work in market surveys and due diligence searches. Kate Shaw and Michael Renner each received the Technology Support Award, which is intended for non-inventors whose efforts contribute to technology promotion and licensing. For a list of honorees and award winners, visit YSource.

““

To be a leader in this fast-paced world requires technological development. Y-12 is a leader in this area.”

Bradley Hodges,
Y-12 Technology Transfer honoree

A Y-12 Centenarian

You've heard his name and seen photos of his supervising days at Y-12, and in October, he celebrated his 100th birthday. He is Connie Bolling, a retired Y-12 employee who worked with the Calutron Girls during Y-12's first mission.

Historian Ray Smith celebrated with Bolling on his special day. "Connie received a letter from President Bush, a proclamation from the City of Oak Ridge [presented by Mayor Pro Tem Jane Miller (also of Y-12)], and a poster (created by Pat Carson) signed by numerous Y-12 workers," Smith shared.

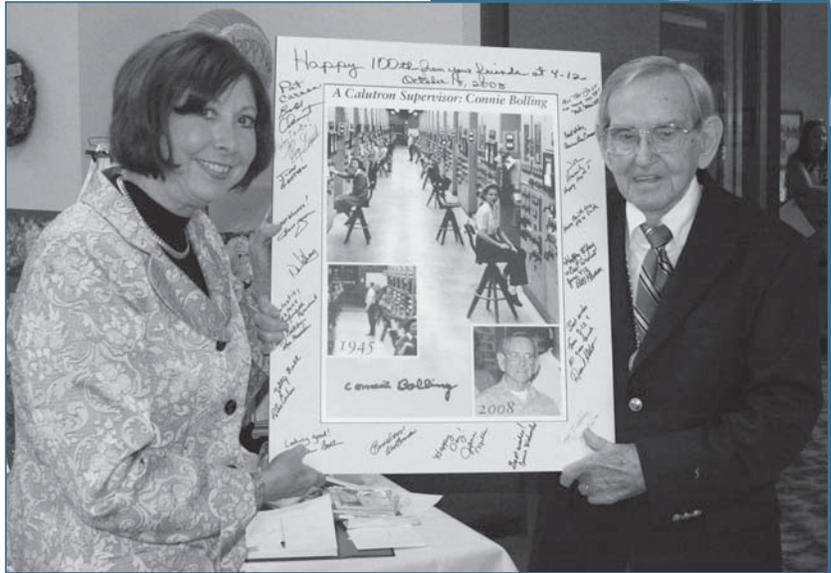
Bolling has been at Y-12 recently. He served as the official welcome committee to Secret City Festival attendees in 2005 and again this year.

Smith recalled, "This year, Connie proudly sat near a poster of the famous Ed Westcott image of 'The Calutron Girls' and explained constantly that he was the supervisor in the back of the photo."

Bolling came to Y-12 in 1943. "Connie says he was just proud to be able to do something to help work on the war effort," Smith said.

After Y-12 transitioned from an electromagnetic separation plant to a weapons production plant, Bolling supported operations until his retirement. He has remained a strong supporter of Y-12.

Smith said, "Connie is truly one of Oak Ridge's citizens who reflect the dedication and pride in accomplishment that so admirably represent those who worked here during the exciting Manhattan Project era."



Pat Carson of Public Affairs and Communications presents Connie Bolling with a special gift for his 100th birthday.

SERVICE



ANNIVERSARIES

November

40 years

Engineering: Glenn R. Bridges
Production: Wayne Gibson

35 years

Engineering: Sandra R. Asbury

30 years

Engineering: Charles A. Levin and Evelyn E. Zang
Environment, Safety and Health: Billy C. Brown
Facilities, Infrastructure and Services: Walter D. Lavender

Human Resources: Cindy R. Cavender

Production: Michael L. Brown and Sharon B. Hawkins

Projects: Christopher J. Hammonds

Public Affairs and Communications: Kenneth S. Davis

25 years

Chief Financial Officer Division: Darrell N. Sexton

Engineering: John H. Gertsen

Facilities, Infrastructure and Services: Samuel R. Lyle

Human Resources: Kemberly L. Phillips

Production: Beverly T. Calhoun, Alicia R. Hill and Sandra S. Price

Quality Assurance: Jeanette W. Hayes

Safeguards, Security, and Emergency Services: Jonathan D. Long

20 years

Production: Julia C. Carey, Robert L. Claiborne,

Monty G. Fritts and Phyllis J. Williams

Environment, Safety and Health: Peter D. Calkin

Safeguards, Security, and Emergency Services: Kerry S. Templin

In memoriam

Mary Ayles of the Chief Financial Officer division passed away Oct. 30. She had been an employee of Y-12 for 36 years.

Her co-worker, Jane Green, said, "Mary was one of the kindest and most thoughtful ladies who I have had the pleasure of working with. She always greeted everyone with a smile, knew them by name and was always gracious. She had great stories of the people that she met over the years at Y-12. She will be greatly missed."

Holiday party for employees

Dec. 11

4:30 to 8 p.m.
Jack Case Cafeteria

Holiday party for employees' children or grandchildren

Dec. 13

2 to 6 p.m., New Hope Center
Contact: Rashaun Williams, 241-4210

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

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From left, employee team members Dick Hochanadel (Facilities, Infrastructure and Services), Charlie Welch (Production), Keith Gosnell (ES&H) and Chuck Roberts, Gordon Roberts and Tony Brown (all of FI&S) reveal the repaired stairwell.

The successes are rolling in

“As one employee told me, **‘All I have to do is to keep the people I work with safe,’**” Michelle Reichert, vice president of Environment, Safety and Health, said of employee teams. And teams around Y-12 are doing just that.

Monty Fritts of Production shared, “One employee team noted the stairs of a building were in need of skid-resistant surfaces. In a combined effort with the team, Charlie Welch and Stacy Jollay (both of Production); members of Environment, Safety and Health; and Facilities, Infrastructure and Services, the repairs were made.”

Members of another employee team are more confident about handling a medical emergency since completing a course in cardiopulmonary resuscitation. Engineering’s Lucas Craven said, “Though hopefully I’ll never have to use the training, I think it’s an important skill set to have.”

The recent Traffic Safety Expo was the result of many employee teams’ concerns. Production’s Pace Goldston and Johnny Mullins said the event “was a good way to learn more about traffic safety.”

One employee team quickly corrected a fall hazard because of the lack of a smooth walking surface at one well-traveled exit. “That area can become very muddy, and we know that preventing slips, trips and falls is one of our biggest safety challenges in the plant,” said Jeff Cleveland of Engineering. Team member Mike Antonas (Engineering) brought Earl Lewis (Safeguards, Security, and Emergency Services) on board. Within three weeks, Construction had installed a new section of sidewalk.

Fritts said, “Employee teams are a great vehicle to communicate issues, plan resolutions and better equip each other to focus on safety and aim for Target Zero.”

So when you attend your next employee team meeting, remember to step up and share information if you notice something needs to be repaired or changed. As Reichert said, “It’s your health and safety as well as those with whom you work. Do something positive about it.”