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What gets STARTed stops at Y-12

The new START treaty (for STrategic Arms Reduction Treaty) is a bilateral nuclear arms reduction treaty between the United States and the Russian Federation that was signed in Prague April 8. It is a follow-up to the 1991 START I treaty, which expired in December 2009, and to START II and the 2002 Treaty of Moscow (SORT), which was due to expire in December 2012.

If ratified, the treaty will limit the number of deployed strategic nuclear warheads to 1,550, which is down nearly two-thirds from the original START treaty.

These obligations must be met within seven years from the date the new treaty enters into force.

What does that mean for Y-12? Lots of dismantlement.

The National Nuclear Security Administration’s Deputy Administrator for Defense Programs, Don Cook, recently commented that the workload at Y-12 extends right now until 2022, and the important thing is “to keep that dismantlement work ongoing.”

The warheads designated in the new START treaty are not the only components to be dismantled at Y-12. Components from previous weapons systems reside at Y-12 waiting to be taken apart.

One reason for the increase in dismantlements is that we are consolidating operations and getting rid of

Y-12’s role

- Y-12 has manufactured components for every weapon system in the U.S. stockpile.
- Y-12 must maintain or dismantle and disposition parts for 19 different nuclear weapon systems.
  - The bombs—B43, B53, B61 and B83 bombs
  - The warheads—W48, W49, W59 (Minuteman I), W62 (Minuteman III), W68 (Poseidon), W69 (Short-Range Attack Missile), W70 (Lance), W71 (Spartan), W76 (Trident I), W78 (Minuteman III), W79, W80, W84, W87 (Peacekeeper) and W88 (Trident II)
The Highly Enriched Uranium Materials Facility is a step in the right direction. The Uranium Processing Facility is the next step.

—Col. Scott Edwards, U.S. Air Force

The exchange of information by both parties is mutually beneficial. It’s important that the end user (the Air Force) and the producer (Y-12) talk. It gives Y-12 an understanding as to why the Air Force does things a certain way for the Department of Defense and it helps the DoD see how Y-12 works to meet their needs,” said Edwards.

The need for new facilities at Y-12 became apparent during their short time at Y-12, as well. The “White Castle,” as Edwards called the Highly Enriched Uranium Materials Facility, “is a step in the right direction. The Uranium Processing Facility is the next step. The work done at Y-12 is very important.”

Y-12’s program manager agreed. "It helped them realize we need new facilities to meet their very important missions. Nuclear weapons are a critical component of our national security,” he said.
The historical bonds between the Y-12 National Security Complex and Oak Ridge National Laboratory are being demonstrated once again through the collaboration between groups at Y-12 and the US-ITER Project Office at ORNL to recycle excess beryllium metal from Y-12.

On hand to give the first transfer of beryllium metal a personal touch was Max Galyon, a 35-year veteran of Y-12, and his daughter, Angela Galyon, who works in shipping at ORNL. It was a fitting pass from one generation to the next. Max’s grandfather worked at Y-12 during the 1940s, and Max has had a part in several weapons programs in his years here. Now, working with the Targeted Excess Materials Project, he’s seeing things come full circle as work is passed from generation to generation. “The old school way was to keep material here for future use,” said Galyon, “but now we reuse and recycle when we can.” While not an easy task, this and future recycling efforts will ultimately result in a cost savings for the U.S. Department of Energy.

Max and Angela demonstrate both a personal and professional tie between Y-12 and ORNL. They also exemplify the familial bonds that still exist between the two Oak Ridge facilities, despite contract changes that have broken the facilities into two separate entities.

Daughter and father Angela and Max Galyon share more than family ties; they also share work connections. They participated in the first beryllium transfer between Y-12 and the U.S. ITER Project Office at ORNL.

Political potholes to avoid at work

It’s a good idea to periodically remind ourselves of various requirements and expectations that are important to us in our working environment.

While employees are encouraged to participate in the political process, our participation is a personal matter. As such, Y-12 policies prohibit the use of company and government resources for political activities and the solicitation of employees to participate in or support a particular political position, campaign or candidate. This means e-mail, Blackberry or cell phone messages containing political positions, jokes or requests for support should not be sent or forwarded using company or government resources at Y-12 or at any off-site location. Also, pamphlets, brochures, cards, T-shirts, hats, etc., containing a political advertisement, message or theme should not be circulated, distributed or otherwise displayed in the workplace. Solicitations of funds in support of a political party, position or candidate also should be avoided. Although it may not be intended, such activities can be intimidating or offensive. Consequently, these types of activities must not occur at Y-12.

If you have questions or need further clarification of company policy, please contact the Y-12 Ethics Office using any of the various methods available through YSource or as posted throughout Y-12.
Flexible fabrication

Flexibility is not often associated with steel fabrication, but flexibility was an asset in a recent mentor-protégé arrangement between Safeguards and Security and DCS Electronics.

DCS, a small business in Maryville, Tenn., is part of Y-12’s mentor-protégé program, which seeks to provide opportunities for small disadvantaged firms to provide services to support Y-12 missions.

According to Wen Thomas of Transformation and Projects, the company “is well known and respected at Y-12 for metal manufacturing.” He added that the BearCat III project, which involved upgrades to armored vehicles used by the Protective Force, required significant metal fabrication and software configuration.

Software configuration is out of the normal scope of work for a small fabrication shop, but Thomas noted that “DCS took a step forward by accepting this project and expanding their capabilities ... and developing a new system to meet Y-12’s needs.”

Susan Reel of Engineering expounded on the company’s “tenacious” efforts, saying “they wouldn’t give up.”

Part of the challenge, noted Reel, is that the project was on the cutting edge. Thomas concurred, adding that much of the software configuration fell into research and development.

Serving as mentor, Garret Scott of Safeguards and Security worked closely with DCS during the software configuration. Citing the uniqueness of the project, Scott said he was most impressed with the company’s customer service: “They were willing to go the extra mile.”

Hopefully, the momentum from this project will propel this small company into other successful contracts.
CAuSe for alarm

If you think your days at work are stressful, you might want to talk to the operators in the Central Alarm Station, which is tasked with monitoring all security alarms. Answering more than 550 phone calls a day might seem stressful in itself, but knowing site operations depend upon your response to the calls adds pressure.

The bulk of the phone calls to CAS are related to security area access, which peaks at the beginning and end of each workday and around lunchtime. Keep in mind, though, that calls regarding access only account for a portion of the activity in CAS. These operators also respond to requests from Maintenance, the Plant Shift Superintendent’s Office, Protective Force personnel and performance testers. Staff also monitor and assess alarms as well as walk-test all alarmed areas. They monitor seven different radio networks as well. Therefore, the site population can assist CAS by making noncritical calls during off-peak hours.

If just the thought of that level of activity makes you want to seek a dark, quiet place, you’re probably not CAS material. These operators have nothing but enthusiasm for their jobs, though. “I absolutely love my job,” said one operator. His partner admitted to enjoying the adrenaline rush and added, “At the end of the day, you feel like you’ve really done something.”

She and her co-workers certainly have: They have ensured secure operations at Y-12, and there’s no more important mission.

WBGT—not another txt acronym

We certainly had a hot summer. At one point the WBGT hit 90 degrees Fahrenheit. Are you perplexed? A conversation with Y-12’s meteorologist, Tom Bellinger, will relieve that confusion. WBGT, or wet bulb globe temperature, is the best indicator of how weather affects humans.

According to Robert Gee, manager of the Emergency Management Program Organization, the site is required to capture a great deal of data to ensure adequate emergency preparedness. “Two or three years ago, it occurred to us that the information might be useful to those outside the EMPO,” said Gee. “We started with cold weather warnings … facility forecasts,” he continued.

Sometime later, David Gettellinger of Industrial Hygiene suggested using WBGT to assess heat stress for Y-12 workers. Once the globes were procured, Bellinger had everything he needed to provide up-to-the-minute information regarding heat stress. Using the existing paging system, he’s able to push that information where it’s needed most—in the field.

“We used to call the PSS (Plant Shift Superintendent) to check the WBGT,” noted James Pollard of Construction. He thinks the system heightens awareness in the field. “We’re more aware of heat stress, and we start looking out for each other,” he said. Knowing that he’ll be alerted when the temperature hits certain levels (see graphic) also allows him to focus on the task at hand.
One retiree’s dream job

When Dale Hatcher took early retirement in 2007 after 30 years in Engineering, he had a couple of things in mind: relocate to Franklin County so his wife could be close to her parents and start a second career as a teacher in the public school system.

His new job began almost immediately since he already had earned a teaching license under the Tennessee Department of Education’s fast-track Teach Tennessee Program. That initiative [http://www.tennessee.gov/education/teachtn/index.shtml] helps professionals in other fields move into education and benefit from mentoring by experienced teachers.

Then after about a year and a half as an algebra instructor at Franklin County High School, Hatcher had perhaps an even more interesting opportunity. This one came from the Franklin County jail, where he now teaches classes to inmates as part of the county’s Community Reentry Program. “We try to provide the tools to succeed when they return home to minimize recidivism as well as contribute to a safer community,” he explained.

Those tools he helps provide relate directly to steady employment—a high school general equivalency diploma, job interview skills and some technical knowledge. Hatcher, for example, teaches computer numerical controlled machining, injection molding (a manufacturing technique for car parts) and fundamentals of electricity. “My engineering experience is particularly useful in this kind of vocational instruction,” he said.

Hatcher calls his a dream job, and a big reason is motivated students. “Losing their freedom can have an eye-opening effect on many people, and working toward a good job is a way of getting on the right track and building self-esteem. I’m blessed that I can help them get another chance.”

The big 1-0 brings success for readiness

Almost 150 participants from throughout the Nuclear Security Enterprise attended the 10th annual B&W Y-12-sponsored Readiness Workshop. This workshop communicated the continued value of B&W Y-12’s ongoing readiness initiative and lessons learned led by John Raulston and Cindy Bailey (Production), Joe Crociata (Engineering) and Sheila Shropshire (Audit Center). This year's presentations focused on the readiness process that supported successful startup of the Highly Enriched Uranium Materials Facility and varied applications for site implementation of the recently approved U.S. Department of Energy Order 425.1D, “Verification of Readiness to Start up or Restart Nuclear Facilities.”

Welcome addresses by Dan Hoag (senior project director, Y-12 Site Office) and John Howanitz (Y-12 senior vice president, Transformation and Projects) noted the HEUMF success story was a result of “taking time to do the job right,” even when two weeks of additional training time was added to the HEUMF preparation schedule, which resulted in an accelerated successful conclusion by the National Nuclear Security Administration’s Operational Readiness Review before the Christmas 2009 holiday. Dick Crowe (NNSA headquarters), the HEUMF ORR leader, discussed the record HEUMF nine-day ORR process duration, crediting thorough previous reviews for the speedy conclusion.

In addition to various perspectives on the HEUMF readiness success, other discussions included specific application of the revised DOE Order 425.1D at the various sites, and presentations offered related progress on specific DOE projects from across the enterprise. This year’s workshop was held Aug. 17 and 18 at the Hilton Knoxville Airport Hotel.

For more information on the Readiness Workshops, visit the Readiness Assurance website available from the YSource index.
Around Y-12 ...

- Mark your calendars for the annual Y-12 Employees’ Society (YES) holiday parties Dec. 16 and 18. The Dec. 16 event will be in the Jack Case Center cafeteria for employees only; the children’s party will be Dec. 18 at the New Hope Center. Watch YSource for more information as the events near. Contact Lisa Harris (576-2658) or Rashaun Williams (241-4210) for more information.
- Do you enjoy helping others? Do you love the holiday season? If so, then you are a perfect volunteer for the YES Angel Tree committee. Volunteers will help coordinate “adopting” angels, wrapping gifts, shopping for gifts not purchased and delivering the packages to the respective counties. Contact Lisa Harris (576-2658) for more information.
- The East LIFE Center opened for business Aug. 23, and the West LIFE Center opened Sept. 20. These centers are the second and third LIFE Centers to open on-site. Although similar to the Jack Case LIFE Center, the east and west centers have more equipment, including a leg press and a seated rowing machine. There are also large areas that will be used for aerobic, yoga and other classes yet to be determined. According to LiveWise physical therapist Gary Hall, the staff is still working to “establish the rhythm and flow” and will determine schedules to meet the needs of users.
- Deputy General Manager Bill Klemm has been elected to the Energy Facility Contractor Group Board of Directors. EFCOG works with the U.S. Department of Energy to improve safety and security, promote effective project management, plan and maintain infrastructure to meet future program needs and increase efficiency at all DOE facilities. Klemm said his vision “is that B&W Y-12 will actively support and participate in each of the working groups and assume leadership roles as opportunities are available.”
- Mark Plemmons of Earned Value Management Systems and Services has been awarded this year’s Total Cost Management Award of Excellence from the Association for the Advancement of Cost Engineering East Tennessee Section. The award is given each year to an outstanding section member who has made a sustained, significant contribution to the cost engineering profession. He is a certified cost engineer endorsed by AACE.
- Greg Schaaff in the Analytical Chemistry organization has been selected as Y-12’s first Technical Fellow. In his new role, Schaaff will work to enhance Y-12’s role in national security programs. The primary goal of the Technical Fellowship is to establish Y-12 as the leading site for uranium isotopic and materials analysis in support of challenges in nuclear nonproliferation, counter-terrorism and forensics.
- Employees celebrated the completion of the Potable Water System Upgrades Project with a barbecue lunch Sept. 9. B&W Y-12 President and General Manager Darrel Kohlhorst and Dino Herrera, director of the Office of Infrastructure and Facilities Management at the National Nuclear Security Administration’s headquarters, thanked those involved for their hard work.
- The City of Oak Ridge Youth Advisory Board visited Y-12 Sept. 8 and met with President and General Manager Darrel Kohlhorst to learn about Y-12’s missions and its benefits to the community. The 16-member board serves as a liaison between the Oak Ridge City Council and the youth of the community and makes recommendations to the City Council and the City Manager on policy matters affecting the Oak Ridge’s youth.
Many Y-12-ers have heard anecdotes about “what it was like in the war years.” Well, now you can read for yourself what was happening on-site by reading actual Y-12 Bulletins from the 1940s. You may find birth announcements of people you know—possibly your relatives—as well as obituaries.

Coordinated by Jennifer Dixon (National Historic Preservation Act coordinator) with Ray Smith (Y-12 historian), this project creates online scanned copies of bulletins chronicling Y-12 history as it happened.

Dixon explained, “I wanted the scans to be readable online so that the articles could actually be read as they were accessed.” Y-12 Photography ensures reproductions of each available issue.

Smith shared the motivation for preserving the bulletins in readable format. “Four blue books at the Y-12 History Center are more often perused than any others. They contain a few of Y-12 Bulletins from the early 1970s. These items have become popular because of the photographs and articles about people who worked here then that they recognize.” Smith said, “We’re missing bulletins from the 1950s. If you have copies from this time period or any other, please call me (576-7781).”

Smith continued, “Our history is largely about the people, and folks are most often attracted to photographs of people they know.”

Issues of the Y-12 Bulletins will be made available on the Y-12 public website. Watch for them at http://www.y12.doe.gov/about/history/.