

the **Y-12**
times

70TH ANNIVERSARY

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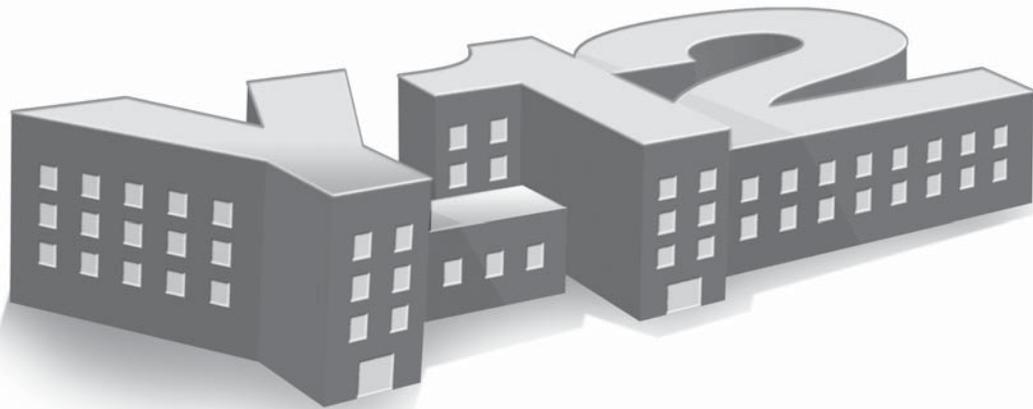
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MISSION: Be 'safe and productive'

Highlighting performance successes

The National Nuclear Security Administration's *Performance Evaluation Report for B&W Y-12*, released Feb. 11, gave "Very Good" ratings to B&W Y-12 in areas related to all three core missions: maintaining the nuclear weapons stockpile, powering the nuclear Navy and nonproliferation. The report evaluates B&W Y-12's performance based on the Performance Evaluation Plan approved at the beginning of fiscal 2012.

Programs

The Y-12 Times highlighted the success of fiscal 2012 key nuclear weapons dismantlement, surveillance and life extension programs (see November/December 2012 issue). Dismantlement goals for four weapons programs were achieved on time, and goals for the B53 were exceeded. The W76 life extension program goals were met, and all stockpile systems surveillances were completed on time or ahead of schedule.

The Directed Stockpile Work, Campaigns and Plant Directed Research and Development area received a "Very Good" in the NNSA's report.

The rating for Nuclear Nonproliferation, Naval Reactors and Complementary Work for Others also was "Very Good." These programs met or exceeded "almost all of the performance and funding targets" and met "cost, schedule and technical performance requirements." One success story listed was the removal of highly enriched uranium from Mexico. (See *The Y-12 Times*, May 2012.) The Alarm Response Training and Nuclear Forensics programs also met or exceeded NNSA objectives and experienced continued growth.

Y-12 Programs in total were rated by NNSA as "Very Good."

Operations

Overall, Operations received a "Satisfactory" rating.

Site sustainability received a "Very Good" rating based on the Jack Case Center obtaining the High Performance Sustainable Building status and reducing energy consumption by 20 percent.

The Readiness in Technical Base and Facilities and Facilities and Infrastructure Recapitalization Program received "Excellent" ratings. During the year, RTBF reprioritized scope with existing funding to repair failed dry fire pipe systems and ensured mission work was not impacted. Read more about the site improvements that resulted from FIRP on pg. 2.

Nuclear Materials Control and Accountability received an “Excellent” having implemented effective material surveillance, item inventory and process monitoring programs. The report stated that NMC&A “continues to be recognized as a leader within the U.S. Department of Energy.”

Institutional Management and Business

This heading includes general management, business management, information technology and contractor assurance; it was rated as “Very Good.”

Communications “continued to provide high quality public affairs products in support of the Y-12 mission.” A Y-12 Media Center was developed for use during emergency public communications activities.

B&W Y-12 provided “excellent sustained support for Y-12 modernization” initiatives, including support for the Stockpile Stewardship and Management Plan and the Emergency Response Facility project.

What this means

Each of the companies that manage and operate sites for NNSA typically do so under an award fee structure, which means the companies and the government agree to a potential amount of profit, or fee, which can be earned through demonstrated performance. In Y-12’s instance, the total available fee was a little more than \$60 million in 2012; B&W Y-12 earned 58.9 percent of that, or about \$35.8 million.

President and General Manager Chuck Spencer said, “While these results are not up to our previous standards, it is important to realize that we have made significant progress since the July 28 event and are off to a very good start in fiscal year 2013.

“As I’ve said before, the best we can do is to perform to the best of our abilities every day, and then go home satisfied that we were safe and productive. And even though we’re in a time of transition related to the contract bid, it is imperative that we stay focused on safely and successfully completing our tasks every day.”

Site improvements of \$490 million result from FIRP

The Facilities and Infrastructure Recapitalization Program has been a key component of modernization and transformation efforts at Y-12. Since its inception in 2002, FIRP has invested \$490 million in facility and infrastructure upgrades. The program concluded in December with completion of the final facility demolition, Building 9720-18.

“FIRP work scope has included recapitalization, excess facility disposition and utility line-item projects,” said Mike Richesin, program manager.

Recapitalization activities focused on upgrades to mission-essential facilities. One of the most notable achievements is the \$40 million investment in roof replacements that resulted in 28 acres of new roofing.

FIRP resources of \$120 million enabled the demolition of 321 excess buildings, reducing the site footprint by 1.4 million square feet and retiring \$18 million in deferred maintenance. Facility dispositions at Y-12 accounted for 47 percent of the nuclear security enterprise total square foot reduction goal of 3 million square feet.

FIRP also sponsored three major utility line-item projects: Compressed Air Upgrades, Potable Water System Upgrades and Steam Plant Life Extension. These modernization projects greatly improved operability and reliability of key utility systems that serve mission-critical infrastructure.

Y-12 addressed hundreds of sitewide infrastructure deficiencies to fulfill the FIRP mission. As the program came to an end, FIRP focused on closeout activities such as removing abandoned utility poles and cables from demolition sites and refurbishing roadways heavily used during project execution.

“Y-12 has accomplished a huge amount of work under FIRP,” Richesin said, “but there is much work still to be done. We are currently working with headquarters to establish a new program that will continue infrastructure improvements to ensure Y-12 missions are accomplished.”



The Potable Water System Upgrades Project and Bear Creek Road Paving Project resulted from the Facilities and Infrastructure Recapitalization Program.

CONSTRUCTION 'hats off' to safety

Congratulations to the Y-12 Construction team for receiving a second significant safety milestone: zero Occupational Safety and Health Administration recordable injuries throughout 2012. A recordable injury is an abnormal condition or disorder (such as a cut, burn, sprain or fracture) that must be recorded as required by OSHA. The team was previously recognized for working one million hours without a lost-time accident (see October 2012, *The Y-12 Times*).

"Just 4 months ago, I was here to congratulate you for accomplishing one million hours of safe work," Jim Haynes, senior vice president and deputy general manager of Projects, said at a celebratory lunch in late January. "It's an incredible performance by a team that works in a hazardous environment daily."

Construction Manager Joe Kato told the group, "Today, our performance is world-class. You believed in yourselves and each other. Hats off to you!"

Haynes stressed to the more than 240 Construction workers the importance of remembering the dangers in their line of work, citing OSHA's "Fatal Four," the four leading causes of worker deaths at construction sites: falls, electrocutions, striking objects and getting caught in or between equipment.

Kevin Adkisson, president of the Knoxville Building and Construction Trades Council, also addressed the group, "I want to congratulate the B&W Y-12 Construction team on this unprecedented accomplishment and thank you for your continued collaborative working relationship. We remain committed to working safely and watching out for each other."

Haynes challenged the Construction team to take their performance to the next level by making a personal commitment to stay focused on safety, watch out for each other, make safety an uncompromising value and take corrective action when something is wrong — don't just walk away.



Construction achieved the one million-hour milestone in August 2012, and as of January 2013, attained 1.4 million hours (more than 800 days) without a lost-time accident.

Think outside the trash...Recycle!

In fiscal 2012, Y-12 recycled more than 3 million pounds of waste material, the weight of some 520 full-size SUVs. This total includes one-time cleanout materials that are in addition to routine recycling items. Y-12's complex-wide recycling program diverts materials from the landfill and conserves natural resources, ensuring cost-effective operations and environmental protection. The list of recycled items includes many expected materials like scrap metal, cardboard, plastic and paper. But Y-12 also recycles things like cooking grease, lamps, antifreeze and power poles.

“DOE sites are required to divert from landfills 50 percent of their solid waste materials. Recycling and reusing help us meet this goal. We close the loop by purchasing materials and products made from recycled items, supporting conservation of natural resources.”

—Aprell Patterson,
Facilities, Infrastructure and Services





From left: Chuck Spencer, Y-12 president and general manager; Ray Smith, Y-12 historian; Autry O.V. "Pete" DeBusk, DeRoyal Industries; Michelle Branton, U.S. Department of Energy; and Thom Mason, Oak Ridge National Laboratory at the unveiling of the "Scientists Who Changed the World" exhibit at Lincoln Memorial University. Branton is holding a commemorative plaque given to each of the area DOE sites.

LMU honors Oak Ridge connection

Seventy years ago, construction was under way on what is now known as the Y-12 National Security Complex. To honor work done at Y-12 and other Oak Ridge facilities to support nuclear energy research, Lincoln Memorial University in Harrogate, Tenn., recently installed a permanent display in the university's Math and Science Building.

Y-12 historian Ray Smith assisted with the design of the exhibit, a project of LMU board of trustees chair Autry O.V. "Pete" DeBusk.

Early in the planning stages for this 140,000-square-foot building, DeBusk knew he wanted to include a display that would inspire future generations of LMU scientists, honor visionary leaders whose ideas were the foundation of work done in Oak Ridge and recognize the roles the U.S. Department of Energy, Oak Ridge National Laboratory and Y-12 have played and continue to play in shaping the LMU community.

The "Scientists Who Changed the World" exhibit was unveiled during the building's Oct. 12, 2012, dedication and includes a photo display and timeline of significant events. Governor Bill Haslam served as the keynote speaker for the dedication ceremony.

"When Pete asked me to help recognize the scientific contributions that led to the creation of Oak Ridge and the substantial resulting economic impact on East Tennessee, I was honored to help," Smith said. "I believe that without Oak Ridge we might not have been able to endure the past 70 years without a World War III and that many scientific discoveries and economic development improvements would not have been realized."

Another Secret City

For decades official maps did not show Zheleznogorsk, Russia. Created in 1950 to produce weapons-grade plutonium, the Siberian city of about 90,000 existed in secrecy until the Cold War's close in 1991.

The end of that conflict between the U.S. and the Union of Soviet Socialist Republics meant the end of weapons production, causing thousands of highly skilled Russian nuclear workers to lose their livelihoods. "As the Russians were reducing the number of personnel in the weapons business, the U.S. didn't want the workers to be desperate for jobs," said Y-12 Program Manager Ken Williams.

Two U.S. Department of Energy programs, Nuclear Cities Initiatives and the Initiatives for Proliferation Prevention, helped Russia's nuclear workers move into free enterprise so nuclear materials and expertise wouldn't be sold to possible terrorists, said Williams, who managed the Y-12 and Oak Ridge National Laboratory programs for these initiatives from 1999 to 2004. Both programs used DOE funding to start new initiatives in Russia.

Y-12 and ORNL worked with the Russian government on about 15 Nuclear Cities Initiatives projects in Zheleznogorsk and nine other formerly secret Russian nuclear cities. A company marketing equipment and providing support services for automated identification technologies received funding, for example, as did businesses producing everything from sunflower oil to refurbished railcar parts.

"We brought business to people in places that were open to the outside for the first time in their lives," said Williams. "When we came, people were very grateful."



Development improves its CONOPS — and its way of doing business

Last October, in a drive to better its Conduct of Operations activities, Development began submitting its 100 research-and-development laboratories to strenuous reorganization and certification efforts.

Development Technology Deployment Manager Bill Rogerson said, “We’re not just polishing floors and taking out the paper trash. We’re making up for 50 years of ills” — and “changing the way we do business.”

“The whole plant has been involved in a CONOPS continuous improvement program since September 2011, and we used that as a basis for Development’s action plan,” Development Manager Mark Richey said.

A key concept of CONOPS is a questioning attitude. Employees are encouraged to raise questions if some procedure, equipment or work situation doesn’t seem right.

Rogerson said, “People have squirreled away materials — plugins, containers, petri dishes, beakers, hardware, tools gathered for the past 50 years — and forgotten about them. Getting the materials out of here is difficult because of all the waste management, Radiological Control and accountability requirements.”

The laboratories will be certified weekly on the basis of a newly devised checklist. Section managers will designate a laboratory person in charge, who will undergo training and conduct the weekly certification. “The custodians will know who’s doing what, the lab conditions and the safety functions,” Rogerson explained. If any lab does not reach certification standards within six months, the lab will be out of commission or placed on restricted activities until it meets the certification requirements.

Development Section Manager Neville Howell, who has nine labs, said, “... We have RADCON, Industrial Hygiene, Maintenance and waste management all working hard with us, and they are doing a great job.”

Development’s work control packages also are being reviewed in terms of “good hazard analysis, proper documentation and assignment of workers who are qualified to perform the tasks,” said Phil Harless, a Development manager. “Work scope and boundaries must be perfectly clear.”

From Richey’s perspective, “The biggest thing is that these changes will make Development a safer, more efficient and more aesthetic workplace.”



As of Feb. 19, the organization has filled 58 B-25 boxes (about 5,500 cubic feet) and 13 sea-land boxes (about 16,600 cubic feet) with disposed waste, reported Development’s key coordinator of the plan.

Around Y-12 ...

- At the University of Tennessee Diversity Career Luncheon, Y-12 Human Resources received the Dr. Jane S. Redmond/PepsiCo Commitment to Diversity Award. Among various site-wide accomplishments, Human Resources was recognized for Engineering initiatives such as Introduce a Girl to Engineering, as well as Career ONE minority/female hires. Rachel Carvell and Renee McGhee received the award on behalf of Y-12.
- **Kudos to Fire Protection Engineering's David McAfee who was recently recognized as a lifetime member of the National Fire Protection Association.** He's been an NFPA member for 38-plus years, and for more than 20 years, he has been a member of the Lightning Protection Technical Committee. "I've met a lot of good people in the industry and gained insight you don't get from reading the codes," McAfee said.



Ralph Honeycutt

- **Congratulations to Y-12's Ralph Honeycutt (left), who received the Ambulance Director of the Year Award.** Honeycutt didn't know he would be receiving the award when he attended the East Tennessee Region II EMS Directors Association Conference to assist with behind-the-scenes responsibilities. "We never go as participants; we just assist with the tasks to help it run smoothly," he said. According to Honeycutt, the award belongs to everyone involved in getting ALS [Advanced Medical Life Support] up and running at Y-12.
- **The U.S. Postal Service announced that they will stop delivery of letters on Saturdays starting in August.** Prescription medication shipments are considered packages and will continue to be delivered on Saturdays. Y-12's pharmacy benefit vendor, Express Scripts, will include messages to this effect on its website and push other communication to those covered in the Y-12 prescription drug plan.

- **The Pollution Prevention Program shares these upcoming events at which you can discard your unused/unneeded medicines in an environmentally friendly way.** Two events are scheduled March 23 in Knoxville: Tennova North Medical Center, 7565 Dannaher Lane, 10 a.m. until 2 p.m. and Walgreens, 4001 Chapman Highway, 10 a.m. until 2 p.m.
- **If you missed WBIR's look at Y-12's 70 years, you can watch the video at the station's website (<http://www.wbir.com/news/article/255157/2/Y-12-celebrates-70-years->). Y-12 Historian Ray Smith shares some of the site's unique heritage.**
- **Do you want to spend the July 4 holiday in New York City?** If so, visit the Y-12 Employees' Society website (available under Y in the YSource index) to get the latest information about the trip planned for July 1-6. Start planning now for this exciting adventure! Have questions? Contact Charlotte Schaefer (576-8908) or Suzie Housley (576-6365).

In memoriam

David Register of Quality Assurance passed away Feb. 4. He had one year of company service.

"I did not know David long, but I had time to know that he was someone I could call my friend. He was a gem," said co-worker Cheryl Ellis.

Co-worker Dan Carnes said, "Although we only got to know David a short time, we could tell that he was eager to learn the job and to pitch in to help in any way he could. I will miss our little daily office chats."



March

53 years

Chief Financial Officer Division:
William R. Ragland

45 years

Quality Assurance: Joseph P. Konopka
Strategic Planning and Transformation:
Thomas E. Smith

43 years

Production: Homer Gallaher
Quality Assurance: Carl E. Bennett Jr. and
Willie T. Thomas

42 years

Human Resources: Dennis E. Ball
Projects: Eunice M. Hobbs

40 years

Engineering: Joe G. Arnold and Jerry W.
Whittaker

35 years

Engineering: Jeffrey N. Pipes
Environment, Safety and Health: Sherilu D.
Rowan

Facilities, Infrastructure and Services:
Shirley A. Hamilton, Michael L. Lovely
and Condy D. Sharp

Production: Robert L. Stooksbury
Quality Assurance: Theresa K. Smith and
Jerry V. Spence

30 years

Engineering: Patsy A. Crossno and Allen
T. Woods

Production: William A. Cate
Security and Emergency Services:
Patricia L. Johnson

25 years

Engineering: William J. Moore
Environment, Safety and Health: Beverly J.
Shontz and Merritt C. Wiest Jr.
Facilities, Infrastructure and Services:
Marcus O. Phillips

Program Management: William S. Allison
and Ronald F. Milligan II
Production: Michael A. Aloï and Hayes A.
Tinker

Security and Emergency Services:
Leonard D. Ervin and Donna K. Vickery
20 years

Chief Financial Officer Division: Jane
Johnson and William L. Wicke
Document and Property Management:
Pamela G. Davis

Engineering: James A. Akin
Quality Assurance: Karen C. Hoffarth and
Yolanda Y. Washington

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Small-scale improvements, such as automatic valve controls, add up to better efficiency and operator safety.

Working smart to provide utilities for lithium

Supplying the right environment to process lithium is not as simple as flipping a switch. In fact, achieving the required humidity and temperature is a complicated balancing effort and a real test for aging utility systems.

To deal with both capacity and flexibility issues, Utilities, Production and Engineering are working together — tracking system performance, adjusting parameters, mitigating breakdowns and installing upgrades as funding allows.

Perhaps the utility that receives most attention is the cooling/dehumidifying system. Since dehumidified areas amount to half the building, removing moisture from the air can load the system to capacity. “There were times last summer when we had to raise temperatures to achieve the required relative humidity level,” the lithium operations manager said. “Utilities operators and engineers worked really hard to keep brine temperatures in specification all the while we were loading their system.”

In addition to daily tweaking, the lithium team is making permanent system improvements. Some manual controls for conditioned air have been rebuilt or replaced with automatic controls. The result is less stretching and climbing for operators and better efficiency. The system engineer responsible for the changes said, “These automatic controllers will pay for themselves.”

Delivery of gases such as nitrogen and argon has also been fine-tuned. Meters were installed to distribute the right amount of gases and avoid wastefulness.

What everyone on the lithium team understands is that balancing delivery of utilities requires continual communication and adaptability. “Our focus is keeping our mission-critical facilities in operation,” the operations manager said. “As budgets get tighter, we have to figure out ways to work smarter and find workable solutions to difficult problems.”