Problem-solving reaches new heights

When the huge high-pressure vessel in Building 9204-2 broke last November, a repair team representing almost all organizations at Y-12 sprang into overdrive. The coordinated and truly extraordinary effort brought the vessel back on line in a little over two weeks. “The repair was a tremendous effort by everyone involved,” said Don McKenzie, the project manager.

The breakage occurred in the mushroom-shaped metal plug that creates a tight seal in the vessel, and engineers knew the key was locating a fabricator. After a lot of digging, the team located the company that bought the original fabricator’s business. “We were very fortunate to find the name of the new owner, which had maintained the original design drawings from the 1950s,” said McKenzie.

Accelerating the pace was the motto for the project. A special lifting fixture designed to remove the disabled “mushroom” was fabricated off-site and received in less than a day. A special crate for shipping the 5-foot-diameter, 6,100-pound plug was built by the carpenters overnight. The plug was modified, fitted with a redesigned mating part and returned to Y-12, along with other new parts, in just one week.

Maintenance crews spent most of one weekend installing the repaired assembly. “People were working not only overtime but also in confined space and uncomfortable positions,” said the production manager. “A portable exhaust unit loaned by Construction was a big help in removing oil fumes.”

Organizations at Y-12 participating in the repair included Engineering; Transformation and Projects; Manufacturing; Facilities, Infrastructure and Services; Safeguards, Security, & Emergency Services; Procurement Operations; Environment, Safety and Health; and Programs & Quality.

“I am very proud of the leadership demonstrated by many organizations to repair the press and get back into production,” said Darrel Kohlhorst, president and general manager. “Fortunately, we were ahead of schedule with production, deliveries were not impacted and we had no injuries for the entire project.”
Old warheads become peaceful energy

With more than 60 years of extensive work producing and storing nuclear weapons, Y-12 uses its expertise, as well as its facilities and equipment, for peaceful purposes. By converting highly enriched weapons-grade uranium to low-enriched uranium (LEU) by downblending it, Y-12 is providing a powerful source of electricity and eliminating weapons-usable material. Annually, a portion of the electricity used in the U.S. comes from commercial nuclear power reactors that use uranium downblended from nuclear weapons. Y-12’s downblending program not only eliminates weapons but provides LEU for zero carbon emission “green” nuclear power.

Significant cost savings from reduced secure storage and positive environmental/nonproliferation benefits are realized by eliminating weapons-grade materials. “Downblending also provides an important backup inventory should there be a disruption in the supply of feed for fuel fabrication,” said Gary Person of Programs & Quality.

To date, programs managed by Y-12 have eliminated 2,579 equivalent nuclear weapons and provided enough LEU to power all U.S. households for 263 days.

Y-12 also is one of the world’s most secure, reliable suppliers of enriched uranium feedstock. "We fuel research and medical isotope reactors worldwide, including multiple customers in Europe, Asia, South America, North America and Australia,” said Tony Keller of Programs & Quality. Y-12 recently completed its largest-ever foreign shipment of low-enriched feedstock, then executed one of the shortest turnarounds on record. "We received foreign containers one morning and shipped them loaded the next afternoon. That’s Y-12 at its best!” said Keller.

Metal slugs, produced from surplus weapons material, are downblended to produce low-enriched uranium for reactor fuel.

HEUMF’s achieving operational readiness was a proud day for Y-12 and for the HEUMF project team, which had to overcome many challenges to accomplish this milestone.

—Beth Schaad, HEUMF Startup Manager

Largest new facility startup in recent NNSA history

January 2010 will be remembered in Y-12 history as the month the Highly Enriched Uranium Materials Facility (HEUMF) project achieved readiness for operations.

Planning for the readiness phase of the project began four years ago and intensified over the past year with hundreds of employees working 10- to 12-hour days/seven days a week to prepare HEUMF to safely and securely perform its mission. But before the facility could begin operations, its processes had to successfully pass two readiness reviews required by U.S. Department of Energy Order 425.1.

Those reviews included the Contractor (B&W Y-12) Operational Readiness Review (ORR) held in November 2009 and the National Nuclear Security Administration (NNSA) Headquarters ORR held in December 2009. The NNSA ORR team lead, Dick Crowe, indicated that—of all the facility reviews he had participated in—HEUMF was the best prepared to undergo review.

Production Vice President Les Reed, Startup Manager Beth Schaad, and Operations Manager Jason Hatfield credit the project’s recent success to in-depth planning, staff proficiency and thoroughness, and dedication by everyone involved.

In addition to being praised for the best-prepared readiness review conducted anywhere in the complex, the project achieved readiness to start up an impressive 10 weeks ahead of schedule and under budget, resulting in money saved on the project. Beth Schaad stated, “HEUMF’s achieving operational readiness was a proud day for Y-12 and for the HEUMF project team, which had to overcome many challenges to accomplish this milestone.”

Note: An upcoming issue of The Y-12 Times will cover HEUMF’s beginning of operations.
Meet an ARRA worker

Y-12 has the seventh largest American Recovery and Reinvestment Act (ARRA) contract in the nation, with its ARRA projects creating slightly more than 500 jobs. Who are all these new people, and what are they doing? Over the next three months, we will feature three individuals working on these projects.

Who
Ken Davis, Facilities, Infrastructure and Services

Position
Ironworker apprentice assigned to journeyman Ronnie Phillips—“I feel fortunate to have him as my journeyman because he had the previous apprentice of the year.”

How long at Y-12
Approximately 6 months

Previous employment
Rubbermaid

Recovery Act projects worked
Beta 4 and Old Salvage Yard—“Everything is new to me, but with each project, I’m learning more about my craft and Y-12. I have worked on plant shutdowns in the past, but never on such a large scale. Soon I expect to be moving machinery in Alpha 5.”

Further thoughts on projects
“I was surprised at how much everything is segregated for recycling—paper, batteries, rubber, drums—there are orderly piles everywhere.”

Reduce, reuse, recycle always at work

The reduce, reuse and recycle concept is at work at the Y-12 National Security Complex thanks to the American Recovery and Reinvestment Act (ARRA). Y-12’s Building 9204-4 (Beta 4) project transferred a package monitor from B&W Y-12 to the Oak Ridge National Laboratory (ORNL). This large piece of equipment (weighing about 12,000 pounds) was used to check items before disposal. It was no longer needed at Y-12 and had been on the swap list for reuse for more than two years.

Pam Davis of Document and Property Management said, “Reutilization of government property is always preferred over letting property sit idle. For this equipment, reutilization or disposal as scrap were the only options. This transfer was considered a great success. Through the reutilization screening process, a customer—ORNL—was identified. The transfer was on then off, as different hurdles were identified and then resolved. The final hurdle was crossed when ARRA funding was appointed for breaking down the item to allow shipment to ORNL.”
Now in its second year, Y-12's Apprenticeship Program has 68 apprentices, 45 in their second year and 23 in their first. Through classroom and on-the-job training, apprentices are learning skills to become boilermakers; carpenters; electricians; heating, ventilating and air-conditioning technicians; insulators; painters; pipefitters and welders. On the top of their to-do list is learning about Y-12's safety culture.

Tracy Miller, an apprentice pipefitter, is not only new to Y-12 but also new to her trade. Learning the ropes of her craft while keeping safety front and center can be challenging. "I am learning a new trade for which I have had no previous knowledge," she said. "The easiest way I have found to keep safe on the job is to be aware of my surroundings. To me, that is the first step. Without that awareness, you cannot begin to work safely."

Like Miller, apprentice Chad Bishop is learning his trade from the ground up. He admits learning the skills of a boilermaker is an eye-opener. Reading blueprints, learning boiler theory, repairing pressure vessels, fabricating equipment—it's all in a day's work. So is being safe.

"I try to be in the moment and protect my fellow workers by watching out for their well-being," he said. "You cannot see every hazard every time, so looking out for your team can definitely prevent an accident or save a life."

For apprentices learning their craft and those teaching them, nothing is more important than doing the job safely.

Apprentices ‘get’ safety

A new SAP Document Management System (DMS) is now live—after more than year of hard work of a team comprising Document and Property Management, Engineering and Information Technology employees. The system represents a new technology for managing controlled documents, an enhanced process for storing documents with data and a new tool for workflow.

Business Services’ Betty Robinette, said, "The deployment of SAP DMS is another milestone in the strategy to provide effective tools in managing records and documents electronically. Users at Y-12 should find SAP DMS to be a big improvement over the old systems in use."

SAP DMS will continue to provide information about controlled documents, including Engineering reports, Facility Production documents and technical procedures. Importantly, it adds the capability to load active documents into the system.

Robinette noted, "This system will enable electronic routing of documents for approval from the desktop and to the Document Management Centers when further processing as controlled documents is needed."

Future functionality will include product configuration documentation and electronic production execution procedures at the shop floor. What this means is, the user will be able to access SAP productivity processes and the DMS real-time to ensure they have the latest versions of technical documents and procedures.

Efforts are under way to begin the next phase, which is to provide the same tools for classified documents and records. SAP DMS was developed to replace two legacy systems, SMART and EDIS/PRIS, that had been in place since the late 1980s.

e-routing saves time

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This year promises to be one of change for the Y-12 Live Wise Program. For several years, employees have wanted help with their wellness. The wait is over; change is coming. Watch YSource and The Y-12 Times in the coming months for information.

Four nonprofit organizations each received a $200 donation thanks to the recycling efforts of Y-12 employees. Those receiving a donation were Knox Area Rescue Ministries (KARM), Horse Haven, Saving Little Hearts and The Love Kitchen. The organizations were chosen by the Y-12 Aluminum Beverage Can (ABC) Committee from 25 organizations nominated by employees.

Myrna Herron of Programs & Quality nominated KARM. KARM helps the needy of the Knoxville area by providing meals and shelter. “It is rewarding to see how KARM is providing [those in need] with the tools to get back on their feet and take care of themselves,” Herron said.

Horse Haven cares for unwanted and neglected horses. Pam Wright of Communications Services nominated the organization. “I stand in awe of these volunteers who do so much to make sure these horses are safe and cared for, and get a second chance,” she said.

Engineering’s Gail Hackett nominated Saving Little Hearts, a support group for those who have children facing heart surgery. “A family close to us received support during their daughter’s treatment for a congenital heart defect,” Hackett shared. “It means so much to know you are not alone during such uncertain, stressful times.”

The Love Kitchen, nominated by Diane James of Document and Property Management, serves approximately 2,000 meals twice a week to those in need or homebound. James said, “Helping those in need is what I believe we are here to do.”

To learn more about the ABC Committee, visit the Pollution Prevention website (http://www-internal.y12.doe.gov/pp2/).
MORE INFORMATION

To obtain a copy of the full annual reports, or any part thereof, write or call the office of the plan administrator at 602 Scarboro Road, Oak Ridge, TN 37830 and phone number 865-241-2966.

You also have the right to receive from the plan administrator, on request and at no charge, a statement of the assets and liabilities of the plans and accompanying notes, or a statement of income and expenses of the plans and accompanying notes, or both. If you request copies of the full annual reports from the plan administrator, these two statements and accompanying notes will be included as part of those reports. The charge to cover copying costs does not include a charge for the copying of these portions of the reports because these portions are furnished without charge.

You also have the legally protected right to examine the annual reports at the main office of the plans:

602 Scarboro Road, Oak Ridge, TN 37830, and at the U.S. Department of Labor in Washington, D.C., or to obtain copies from the U.S. Department of Labor upon payment of copying costs. Requests to the Department should be addressed to: Public Disclosure Room, Room N-1513, Employee Benefits Security Administration, U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210.

BENEFITS SUMMARY ANNUAL

2008 Summary of Findings

The following is a summary of the annual reports for the Group Welfare Benefit Plan for Employees of Certain Employers at the U.S. Department of Energy Facilities at Oak Ridge, Tennessee—a health, life insurance, and disability plan (employer identification number 54-1987297, plan number 506) for the plan year ending 12/31/2008. The annual report was prepared by the Employee Benefits Security Administration, as required under the Employee Retirement Income Security Act of 1974, as amended.

Welfare

INSURANCE INFORMATION

The plan has contracts with Life Insurance Company of North America, United Healthcare Insurance Company, Metropolitan Life Insurance Company, Connecticut General Life Insurance Company, Aetna Life Insurance Company, Cigna Healthcare of California, Inc., Delta Dental of Tennessee, and Vision Service Plan to pay certain claims incurred under the terms of the plan. The total premiums paid for the plan year ending 12/31/2008 were $27,218,719.

Because they are so called “experience-rated” contracts, the premium costs are affected by, among other things, the number and size of claims. Of the total insurance premiums paid for the plan year ending 12/31/2008, the premiums paid under such “experience-rated” contracts were $19,380,038 and the total of all benefit claims paid under these experience-rated contracts during the plan year was $17,994,492.

BASIC FINANCIAL STATEMENT

The value of plan assets, after subtracting liabilities of the plan, was $940,488,057 as of the end of plan year, compared to $993,985,085 as of the beginning of the plan year. During the plan year the plan experienced a change in its net assets of $53,497,028. This change includes unrealized appreciation and depreciation in the value of plan assets; that is, the difference between the value of the plan’s assets at the end of the year and the value of the assets at the beginning of the year or the cost of assets acquired during the year. During the plan year, the plan had total income of $267,602,257 including employer contributions of $140,759,065, employee contributions of $73,346,164, gains/(losses) of $0 from the sale of assets, and earnings from investments of $0. Plan expenses were $214,105,229. These expenses included $10,276,478 in administrative expenses, $203,828,751 in benefits paid to participants and beneficiaries, and $0 in other expenses.

YOUR RIGHTS TO ADDITIONAL INFORMATION

You have the right to receive a copy of the full annual report, or any part thereof, on request. The items listed below are in that report:

1. An accountant’s report;
2. Financial information and information on payments to service providers; and
3. Insurance information including sales commissions paid by insurance carriers.

Savings

BASIC FINANCIAL STATEMENT

Benefits under the plan are provided by a trust fund. Plan expenses were $94,151,356. These expenses included $1,441,255 in administrative expenses and $92,710,101 in benefits paid to participants and beneficiaries, and $0 in other expenses.
ANNUAL REPORTS

Plan for Employees of Certain Employers

Insurance, dental, and vision benefits plan
ending 12/31/2008—and the Savings Program
Oak Ridge, Tennessee (employer identification
annual reports have been filed with the Employee

expenses. A total of 11,766 persons were participants
in or beneficiaries of the plan at the end of the plan
year, although not all of these persons had yet earned
the right to receive benefits.

The value of plan assets, after subtracting
liabilities of the plan, was $1,228,103,214
as of the beginning of the plan year, compared to
$1,526,579,633 as of the beginning of the plan
year. During the plan the plan experienced
a change in its net assets of $-298,476,419. This
change includes unrealized appreciation or
depreciation in the value of plan assets; that is,
the difference between the value of the plan’s
assets at the end of the year and the value of
the assets at the beginning of the year or the
cost of assets acquired during the year. The plan
had total income of $-204,325,063, including
employer contributions of $23,328,975, employee
contributions of $63,291,379, gains/(losses) of
$0 from the sale of assets, and earnings from
investments of $-294,952,560.

YOUR RIGHTS TO ADDITIONAL INFORMATION

You have the right to receive a copy of
the full annual report, or any part thereof, on
request. The items listed below are in that report:
1. An accountant’s report;
2. Financial information and information on
payments to service providers;
3. Assets held for investment; and
4. Information regarding any common or
collective trusts, pooled separate accounts, master
trusts or 103-12 investment entities in which the
plan participates.

JANUARY
44 years
Engineering: Charles T. McLoughlin
43 years
Budgets: James W. Cox
42 years
Programs and Quality: John B. Stephens
41 years
Programs and Quality: Andrea K. Zava
Facilities, Infrastructure and Services:
James E. Kincaid
Production: Carl H. Linginfelter and
Danny H. Lowry
Classification: Richard Baylor Jr.
Facilities, Infrastructure and Services:
Terry A. Beach and Richard G. Ware
Performance Assurance: Donald F. McCarthy
30 years
Document and Property Management:
Hazel J. Arnwine
Engineering: Karen E. Lott
Environmental Compliance: Louis W. McMahon
Facilities, Infrastructure and Services:
Robert W. Bryson, Jerry M. Cruse,
Eddie E. Culbertson Jr., Stephen W. Phipps
and Terry R. Shope
Performance Assurance: Carol C. Hetzel
Production: Terry L. Carmack, Edward E. Carpenter,
Jerry W. Hanna, Patricia W. Hart, Jack W. Moye
and David R. Peterson
Programs and Quality: Mitchell A. Guinn
Radiological Control: Teresa L. Crawford
25 years
Contracts and Special Initiatives: Sandra G. Brown
Facilities, Infrastructure and Services:
Catherine E. Green
Production: Phillip H. Ghee
20 years
Applied Technologies: David M. Cecala
Document and Property Management:
Whitney P. Moore
Engineering: Mahendra B. Butala,
Steven L. Doak and Gilbert W. Sherrill

Environmental Compliance: Robert L. Johnson Jr.
Production: Kimberly D. Bryant and
Rose M. Hall
Radiological Control: Donald E. Leonard

FEBRUARY
42 years
Engineering: Douglas E. Bailes
41 years
Facilities, Infrastructure and Services:
Kenneth E. Jack
40 years
Information Technology: James A. Seneker
Production: Neal A. Hill
Programs and Quality: Cheryl Y. Ellis
35 years
Classification: Max D. Trundle
Facilities, Infrastructure and Services:
James E. Smith and Edwin R. Willis
Production: Jerry F. Mounger and Terry C. Tindell
30 years
Communications Services: Elias W. Whitfield III
Engineering: Ronald R. Uglow
Facilities, Infrastructure and Services:
Jerry T. Waterson and Richard E. Yeats
Production: Carolyn J. Blakely, Betty L. Jones
and Terry R. Miller
Programs and Quality: Murrell R. Jones
Safeguards, Security and Emergency
Services: Rachel M. Hayes
25 years
Occupational Health Services: Martha L. Lewis
Projects: Earl G. Hess Jr.
20 years
Applied Technologies: Reid L. Kress
Engineering: James C. Anderson
Production: Sharon F. Henegar
Radiological Control: Kay M. Bailey
Jim Hackworth carried flags loaned by coworkers while serving in Afghanistan.

Go red for women
Feb. 4
Join your co-workers in wearing red and help wipe out heart disease in women
Contact:
Mary Benton
576-7251
Y-12 Medic
blood drive
Feb 8–11
Watch YSource for details.
Contact:
Zetty Bell
574-0896

Freedom symbols instill strength

While Navy reservist Jim Hackworth was serving on the ground in western Afghanistan, he carried three flags in his backpack. All three were loaned as symbols of pride and encouragement from Y-12 coworkers.

Two flags of the United States of America and one U.S. Navy “Don’t Tread on Me” flag came from Patsy Ruppe and Tony Vermillion of Production. “During our 60 patrols, the flags were always with me, reminding me of why I was over there,” said Hackworth.

The criticality safety engineer served for 11 months with the U.S. Army’s embedded training team to the Afghanistan Army and with the police mentoring team.

Before overseas deployment, he and other Navy personnel trained intensively for nearly three months at Fort Riley, Kan. Instruction included combating counterinsurgencies, foreign language, weapons and reaction to improvised explosive devices. “The training I received there was radically different from my background as a submariner,” said Hackworth.

He found the Afghans to be open and hospitable people. “Part of our mission was interacting with civilians,” he said. “Every place we stopped, children approached [us], and I always carried candy, pens, and paper to hand out.”

For the most part, the area where he was stationed was calm. “All the thoughts and prayers from my friends at Y-12 meant a lot,” said Hackworth. “I truly believe they helped keep me safe.”

Although this was his first time serving overseas, he wasn’t surprised by the professionalism of his fellow soldiers. “I have three-and-a-half years left before retirement from the Navy, and I’m more than ready to go back if they call me.”