Oak Ridge played a significant role during Sergei Kiriyenko’s recent visit to the United States to participate in the first meeting of the U.S.-Russian Nuclear Energy and Nuclear Security Working Group. The Russian director general of the State Atomic Energy Corporation “Rosatom” spent a day in Washington discussing, with U.S. Secretary of Energy Steven Chu, ways the two nations will work together to secure vulnerable nuclear materials, increase cooperation on civil nuclear technologies and cooperate on other nuclear security issues.

The meeting followed President Barack Obama’s April statement underscoring the world’s responsibility to effectively manage nuclear materials. President Obama pledged to expand cooperation with Russia among other efforts aimed at securing all vulnerable nuclear materials worldwide within four years.

—Gerald DeVault, director
Y-12’s Nonproliferation & Nuclear Security Programs

Kiriyenko flew to Oak Ridge with officials, including Deputy Secretary of Energy Daniel Poneman and National Nuclear Security Administration Administrator Thomas D’Agostino, to tour Y-12’s Highly Enriched Uranium Materials Facility and Oak Ridge National Laboratory. These visits “demonstrate how seriously our countries take our shared responsibility to promote peaceful uses of nuclear energy while combating nuclear dangers,” Poneman said.

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Daniel Poneman (second from left), U.S. deputy secretary of energy; Ellen Tauscher, U.S. under secretary of state for arms control and international security; and Ted Sherry (standing), NNSA Y-12 Site Office manager; welcome Sergei Kiriyenko (far left), director general of Rosatom, and the Russian delegation with a friendship toast between nations.
Afrikantov Experimental Machine Building Design Bureau (OKBM). In June, a similar workshop was conducted for Kurchatov Institute. Follow-on workshops are scheduled in November for two additional Russian sites.

The goal of the workshops is to ensure Y-12’s Russian counterparts have the tools necessary to challenge their security systems and enhance protection strategies, as well as validate equipment effectiveness, operability and vulnerability analyses. The workshops promote cooperation and are one new way Y-12 uses its experience, unique expertise and facilities to share knowledge and ensure safe handling of materials worldwide. There are plans to conduct workshops for other foreign countries in fiscal year 2010.

“Mission areas within nuclear nonproliferation more than doubled in 2009,” said Gerald DeVault, director of Nonproliferation & Nuclear Security Programs.

The current work continues Y-12’s history of serving the nation by securing nuclear material from other nations. In 1994, under secret orders from Washington, Y-12 and Oak Ridge National Laboratory assembled a highly qualified team that recovered 1,322 pounds of nuclear materials left behind in Kazakhstan by the Cold War arms race—much of it unguarded and unaccounted for.

The mission, Project Sapphire (see sidebar, pg. 3), was Y-12’s first recovery mission. Since then, Y-12 has been involved in missions in more than 25 countries around the globe, including securing materials and equipment from Libya. The north African country was on the U.S. list of terrorism sponsors but agreed, under pressure, to give up its nuclear weapons program. Y-12 was the obvious choice for storing the 55,000-pound stash.

“We know what’s involved with this kind of work because we handle it every day,” said Randy Spickard, Y-12’s vice president and executive director of Science, Technology & Partnerships. “We didn’t have to develop skills; we were ready.”

Sergei Kiriyenko (left), director general, Rosatom, and Andrew Weber, assistant to the secretary of defense for nuclear, chemical and biological defense programs, U.S. Department of Defense, leave the Highly Enriched Uranium Materials Facility (background) where they discussed material consolidation.
It was fall 1994 when 29 Y-12 National Security Complex and Oak Ridge National Laboratory specialists got tapped by Washington to execute the United States’ first covert mission to recover virtually unprotected highly enriched uranium half a world away in the mountains of Kazakhstan.

Tipped off by a Russian colonel, Andrew Weber, then a diplomat at the U.S. Embassy in Almaty, Kazakhstan, worked a deal. (See photo of Weber on page 2.) After months of careful planning and with a great sense of urgency and the necessary provisions, the hand-picked team began its dangerous task of securing the all-but-forgotten material—enough to make 24 atomic bombs.

Twelve hours a day for four weeks, the team secretly unpacked, examined and repacked seven types of uranium-bearing materials in the remote, dirt-floored concrete storage facility. On Thanksgiving, three C5 aircraft touched down safely at Delaware’s Dover Air Force Base—the U.S.’s first recovery mission accomplished. A small, anxious crowd huddled at Y-12 that holiday morning to cheer the planes home.

For more about Project Sapphire, see The Washington Post article: http://www.washingtonpost.com/wp-dyn/content/article/2009/09/20/AR200092002881.html?referrer=emailarticle
Putting managers back in the Black(Berry) prevents the blues

What was once a major inconvenience—a contaminated BlackBerry—has now become a minor annoyance thanks to the ingenuity of two Y-12 employees.

Previously, managers with the misfortune of receiving e-mail that contaminated their device had to exchange their smartphone. Information Security personnel were simply storing the contaminated phones because there was no approved sanitization method. Further, phones that were contaminated with secret-restricted data became accountable controlled removable electronic media (ACREM) with all the associated inventory requirements.

Concerned about the inefficiency of the process and the dwindling inventory of usable units, O.J. Sheppard, Incidents of Security Concern program manager, issued a challenge. “I asked Amy Pace and Kia Moua to develop a method to sanitize these devices.” The incentive for the challenge was significant—developing and obtaining approval of a sanitization process would both eliminate the ACREM issue and save approximately $520 for each device.

Pace and Moua looked at the existing policy for cleaning media. They developed, tested and verified a process. They prepared technical papers describing the process for the Y-12 Site Office. After obtaining approval of the process, Pace and Moua were able to put 58 units back in service.

The sanitization process is unique within the Nuclear Security Enterprise and also streamlined. “We’re able to get the unit back in the user’s hands within a few hours,” Pace said.

Since 2003, the Lenel badge reader system has simplified access control at Y-12, boasting many advantages over its predecessor. It’s more robust and requires less maintenance, thus saving money.

Before phasing in the Lenel system, the Security Management Control System (SMCS) controlled access to Y-12 beginning in 1984. Today—30 years after developers fashioned a prototype SMCS badge reader from an aluminum block at Oak Ridge National Laboratory—Y-12 has taken the last SMCS component out of service.

SMCS was a testament to Y-12’s ingenuity. It provided service not only to Y-12 but also to K-25 (now the East Tennessee Technology Park) and X-10 (Oak Ridge National Laboratory). In the late 1980s/early 1990s, Visitor Control at the three Oak Ridge sites badged and gave access to about 20,000 employees and thousands of visitors. In the early 1990s SMCS logged around 10 million badge reads each year. That’s no small feat for the six 16-bit, 12-megahertz minicomputers—later replaced by a mainframe—that ran the system.

“SMCS was astounding,” said Security Systems’ Arnold Pomerance, one of the original project team members. “We had one of the first and largest access control systems, and it was homegrown. There was nothing commercial about it.”

As with any technology, however, SMCS had its limitations.

“When SMCS crashed, all the badge readers went down,” Pomerance said. “If people in 9103 saw me walking quickly down the hall, they knew to get out of my way because I was going to troubleshoot the badge reader system.”

Unavailable replacement parts and the requirement to use personal identification numbers at badge readers dealt the final blows to SMCS. Having read its last badge, maybe one of those silver boxes will find a new home in the Y-12 History Center someday.
ALL SECURE: Team achieves significant HEUMF milestone

The site recently completed a key step as the countdown continues toward loading materials in the Highly Enriched Uranium Materials Facility (HEUMF). Successfully incorporating HEUMF into the protected area is one of many required steps before loading the facility next year.

Security is obviously paramount, given the material to be stored, and completing the construction and testing to ensure the facility was ready to be incorporated into the protected area was no small feat. Like all security at Y-12, the HEUMF system was thoroughly tested to ensure effective performance.

And the system is indeed effective. In a recent force-on-force exercise, the adversary force didn’t even come close to achieving its objective. “We want anyone who tries to take nuclear material from Y-12 to know they are on a suicide mission,” said Rick Glass of Safeguards, Security, & Emergency Services (SS&ES).

Attaining this milestone required a significant team effort. Production, Engineering, Transformation and Projects, and Facilities, Infrastructure and Services assisted SS&ES in this effort. WSI Oak Ridge and K-9 Search on Site also participated in the final sweep of the facility, and the Y-12 Site Office worked aggressively with the team to maintain the schedule.

Tom Hayden, Y-12’s deputy for SS&ES, cited the achievement as “an outstanding example of the progress being made toward occupying this facility.” He further praised the multidisciplinary team for “executing a well-orchestrated plan to ensure the facility was ready to incorporate into the security area.”

Although fire prevention week only comes once a year, good fire safety habits should be practiced year-round. Taking these few simple steps could save your life or the life of someone you love.

• Choose holiday decorations that are flame resistant or flame retardant. Replace any string of lights that has worn or broken cords or loose bulb connections.
• Install smoke alarms on every level of your home, including the basement and inside and outside sleeping areas. Test them every six months and replace the battery at least once a year.
• Practice escape plans monthly. The best plans have two escape routes from each room.
• Ensure candles are in sturdy metal, glass or ceramic holders and placed where they cannot be easily knocked over. Never leave burning candles unattended.
• Plug microwave ovens and other cooking appliances directly into an outlet and not an extension cord. Keep anything that can catch fire (e.g., oven mitts, paper or plastic bags, towels) away from the stove top.

While total fire prevention is not possible, being proactive and taking the necessary steps to try to prevent a fire can save a life. It takes less than 30 seconds for a small fire to develop into a major fire, and the more prepared you are to escape, the greater your chance of survival.
WON'T IT BE EASIER IF I GAVE DIRECTLY TO LOCAL AGENCIES?

Agencies work with United Way because they find it tremendously helps their efforts to stay focused on their mission in the community, saving them the time and expense of having to depend solely on their own fundraising efforts. Payroll deduction creates a steady flow of funds to each agency throughout the year for which they are held fiscally responsible—so you know they are credible, and your gift is solely being used to better the community. Giving through United Way helps ensure that your giving counts where it is needed the most.

I NEVER USE AGENCY SERVICES, SO WHY SHOULD I GIVE?

Chances are, you or someone you know has benefited from a United Way-funded program. In fact, if you or someone in your family has ever been involved in Scouting, ever taken a Red Cross first-aid course or received services from the American Cancer Society, you have been served by a United Way-funded program.

A TEAM OF 20 FROM Y-12 RAISED MORE THAN $5,100 DURING THE 2009 FIVE-COUNTY MEMORY WALK TO BENEFIT THE EAST TENNESSEE ALZHEIMER’S ASSOCIATION. “WE HAD AN OPPORTUNITY TO HELP MAKE A DIFFERENCE IN ORDER THAT OTHERS NEED NOT GRAPPLING WITH THIS DISEASE,” SAID TEAM CAPTAIN JUDITH CRAZE.

THREE B&W Y-12 EMPLOYEES—VANITA BOSTON, JANICE CHRISTMAN AND DAN LINEHAN—are serving as loaned executives to the United Way of Greater Knoxville. This program allows the United Way to better serve the campaigns of area businesses by expanding their resources for communication between United Way and participating companies.

Y-12 COST ENGINEERS RECENTLY ATTENDED THE ASSOCIATION FOR THE ADVANCEMENT OF COST ENGINEERING (AACE) INTERNATIONAL ANNUAL MEETING IN SEATTLE AND BROUGHT HOME A PRESTIGIOUS PRIZE FOR THE EAST TENNESSEE SECTION. Y-12’S BOB MCCOY, A MEMBER OF THE AACE BOARD OF DIRECTORS, ACCEPTED THE CERTIFICATE OF OUTSTANDING PERFORMANCE. “THIS PUBLIC AWARD IS ONE TO BE PROUD OF AND SPEAKS HIGHLY OF THE KIND OF PROJECT CONTROLS PROFESSIONALS AT B&W Y-12,” SAID MCCOY.

ROBERT WARTHER WAS APPOINTED VICE PRESIDENT, ENVIRONMENTAL MANAGEMENT, SEP. 20. WARTHER ASSUMES ALL MANAGEMENT RESPONSIBILITIES FOR Y-12 AMERICAN RECOVERY AND REINVESTMENT ACT PROJECTS. HE HAS SPENT THE LAST 15 YEARS IN GOVERNMENT NUCLEAR AND CHEMICAL ENVIRONMENTAL CLEANUP.

UNIVERSITY OF TENNESSEE MEN’S BASKETBALL COACH BRUCE PEARL AUTGRAPHED A MINIATURE BASKETBALL, SEVERAL OF WHICH WERE GIVEN AWAY AT THE Y-12 UNITED WAY CAMPAIGN KICKOFF OCT. 14. DEBRA FREEMAN OF INFORMATION TECHNOLOGY WON A FULL-SIZE BASKETBALL SIGNED BY PEARL. FREEMAN’S NAME WAS DRAWN FROM ALL THOSE WHO COMPLETED THE UNITED WAY AGENCY QUIZ.
As we brace for winter viruses, one particular strain stands out in our minds: H1N1. How can I get it? How can my family stay healthy? To help protect you and your family against the illness, Occupational Health Services (OHS) shares some advice.

“The yearly flu vaccine was formulated before H1N1 was discovered,” said OHS’s Nancy Underwood. “So it does not offer protection against H1N1. We have not gotten any information on when or if the H1N1 vaccine will be available.”

Y-12 has a limited supply (1,250 doses) of the seasonal flu vaccine, which will be available at B&W Y-12 and Y-12 Site Office employees beginning Nov. 3 on a first-come, first-served basis.

Doctors advise people to get the flu shot. According to Y-12’s medical director Dr. Otis Cosby, “The key to controlling the spread of the virus is to use every preventive method available and that includes vaccines. This will require active participation of all that are potentially at risk for infection.”

Whether you’re going to a meeting or a basketball game, remember hand sanitation. Doctors recommend that after shaking hands, opening doors, etc., people wash their hands or use sanitizer. Hand sanitizers have been shown to be very effective in killing the H1N1 flu virus.

If employees are sick, they are advised to stay home. In an effort to help curb the spread of flu virus, a memorandum of agreement was signed recently between Y-12 and the Atomic Trades and Labor Council (ATLC). The agreement allows ATLC members to receive pay during the first 20 hours of absence if they have a doctor’s diagnosis of the flu.

“This agreement encourages employees to stay home when they’ve got the flu,” said ATLC president Garry Whitley. “We don’t want them to expose their co-workers to illness.”

If you have questions about the H1N1 virus or what Y-12 is doing to prepare for a possible pandemic, visit the Pandemic Flu website (http://home1.y12.doe.gov/pandemic/) or call 574-1583.
‘More than a memorial’

Y-12 was created to defend our nation. This upcoming Veteran's Day, take a moment to remember the many Y-12 employees who also are members of the armed forces, including those who serve in Afghanistan and Iraq.

Sadly, some servicemen and women did not live to become veterans. One was Army Staff Sgt. Daniel Morris, who died in November 2006 when a roadside bomb exploded next to his Humvee in the Iraqi province of Diyala. Morris was the 28-year-old son of Quality Assurance's Glenn Morris.

To memorialize him, Clinton-area residents raised more than $6,000 during an hour-and-a-half telethon to pay for a $5,000 bronze bust through Operation Never Forget. The additional money raised went toward busts of the other approximately 4,800 armed forces who died in the Afghanistan and Iraq wars.

"It's more than a memorial; it's a work of art," said Glenn Morris. "We have thousands to thank for this. It's such a gift from everyone."

Morris' memorial is near the Anderson County Courthouse, and he is the first Iraq war soldier to be commemorated there.

Employees can honor a family member, friend or loved one serving in the Armed Forces on Y-12's Support Our Troops website (http://ysource.y12.doe.gov/employee/ourtroops/).