

Y-12, the Cold War, and nuclear weapons dismantlement —

Or: The Cold War and nuclear weapons dismantlement (title used in *The Oak Ridger*)

The Cold War heated up over the years with such things as the Cuban Missile Crisis in October, 1962. Of course, the Cold War had actually begun almost immediately after World War II ended. The ever-increasing nuclear tests of the Soviet Union running from August 29, 1949 to October 24, 1990 kept pressure on the United States to produce more and more nuclear weapons and to keep testing them.

Other nations who obtained the ability to produce nuclear weapons contributed to the pressure on the United States as well. During the early years of the 1950's and 1960's, building test devices for nuclear weapons was a huge mission for Y-12 bringing about substantial growth and continued to do so until nuclear testing ended in 1992.

The United States tested nuclear weapons from July 16, 1945 to September 23, 1992. Atmospheric tests by the United States were stopped as of November 4, 1962 but underground testing continued. No testing has been done since 1992 and the numbers of active nuclear weapons have been reduced by the Strategic Arms Reduction Treaties by both the Soviet Union and the United States.

As of December 5, 2009, the original START agreement was scheduled to expire. With the breakup of the Soviet Union shortly after the signing of the initial START document, Belarus, Kazakhstan, and Ukraine have eliminated their nuclear weapons and only Russia continues to maintain a nuclear weapons program. Negotiations are ongoing between the United States and Russia for a "follow on agreement to START" as reported in the news recently.

Significant reductions in nuclear weapons have been ongoing in both Russia and the United States over the past several years. Even more reduction in the number of nuclear weapons and the dismantlement of those weapons will likely to be included in any follow on agreement to the START II document. Y-12 is actively pursuing the dismantlement work as it is defined and funded.

Dismantlement of nuclear weapons and the storage of the nation's special nuclear materials is a major segment of Y-12's current missions. With the anticipation of the new facilities being planned for Y-12, this dismantlement role may even be further increased in the future. So, Y-12 is coming full circle, from separating the Uranium 235 for the world's first atomic bomb used in warfare, Little Boy, to the dismantlement and storage of the results of years of weapons production.

Also the role to support the nation's efforts to eliminate the spread of nuclear weapons has increased over the past several years. Y-12's expertise is used to protect all special nuclear weapons material that is found stored in a manner with potential to be accessed by terrorists. An example is Project Sapphire, where a special team from the Oak Ridge National Laboratory and Y-12 went to Kazakhstan in 1994 to package and remove a significant amount of nuclear materials.

Nuclear test explosions by other nations and the dates of their first test include: United Kingdom on October 3, 1952; France on February 13, 1960; China on October 16, 1964; and India on May 18, 1974. Pakistan tested a series of nuclear explosions on May 28, 1998 and North Korea on October 9, 2006.

With the continuing expansion of nuclear weapons states, the Cold War escalated. Even now, after the end of the Cold War, concern for the control of nuclear weapons and the resulting potential for extensive damage remains a major reason for the United States to expend substantial efforts across the world to prevent the proliferation of nuclear weapons materials. Y-12 has, over the years, supported many of the nation's efforts as these nuclear materials were located and controlled.

Starting as early as the 1950's the technology needed to support the nation's nuclear weapons strategy has been in place at Y-12 and has been maintained in a high state of readiness to respond to the increasing demands for nuclear weapons tests and maintaining the nation's stockpile of nuclear weapons. Along with the arms reduction treaties has come the need for storage of special nuclear materials and support to the nonproliferation of nuclear weapons worldwide.

Y-12's support for the nation's nuclear weapons program over the years has resulted in the United States maintaining a position of strength among other nations. This position of strength has contributed to the ability of the nation's presidents and foreign affairs staff to enter into and execute agreements that have resulted in keeping peace in a majority of the world.

The sense of pride apparent in Y-12 workers and Oak Ridge as well as East Tennessee and the nation for the role of the Y-12 National Security Complex was demonstrated a few weeks ago at the Y-12 New Hope Center. During the public hearings for the site wide environmental impact statement a substantial number of well informed citizens spoke in support of the need for the Uranium Processing Facility.

This widespread support for Y-12 indicates an understanding that the dismantlement of nuclear weapons is an important mission that Y-12 is best suited to do. Not only for the United States, but well suited to handle the nuclear weapons material that might need protecting anywhere in the world.