

## **Y-12 and the 2000 decade – Modernization**

Terms that define programs come and go, but some stay longer than others. “Modernization” is a term coined in the early 2000s that has stayed with us for years now. Modernization refers to a broad-scoped program that addresses personnel needs, process improvements and facilities that need to be constantly monitored, upgraded and/or replaced.

Y-12 made its mark on history with its role in the Manhattan Project to help win World War II and supported the nation through the winning of the Cold War. In the last 30 years, Y-12 has continued to support the nation’s and world’s needs regarding all things uranium. In March of 2007, the Y-12 National Security Complex was designated the National Nuclear Security Administration’s Uranium Center of Excellence.

That designation was provided in recognition of work that had been going on at Y-12 for years. When Modernization first began in the early 2000s, the focus was on updating the site to meet demanding and ever-increasing security requirements, the reduced but vital production of nuclear weapons components and the expanding work for others efforts. In addition to the nuclear weapons work, many technologies developed at Y-12 have been useful to private industry and beneficial to the nation.

Even more technologically advanced concepts and ideas were being generated through the first decade of the 2000s, and continue even today. Yet, many of the facilities that were in use then, and had been for decades, were designed and built in the 1940s as temporary structures, designed to last until the end of World War II. So, realistically, it was time to re-evaluate the layout and infrastructure of the whole site.

Even though there had been major upgrades to the utility systems and production systems prior to the push for the Cold War, primarily in the late 1960s and 1970s, even those were some 30-plus years old by 2000. Years of deferred maintenance and lack of sufficient funds to remove old structures or repair the worst conditions had led to a reduced level of awareness for the need to maintain facilities. Some facilities had to be abandoned because of roof truss failures, for example.

This relaxation of effort to maintain facilities was never intended, it just happened naturally when conditions were allowed to deteriorate and funding was not available to do necessary upkeep. No one wanted to see the site deteriorate, not the contractor nor the government, it was just a result of limited budgets and the need to focus on production at the expense of upkeep to facilities that were not directly mission related.

Housekeeping became less than desirable, and during the years when several production processes remained inactive after the shutdown of operations in 1994, it was difficult to keep the emphasis on upkeep of facilities that were not being used. This shutdown lasted far longer than anyone anticipated. There were some processes that were still not back in operation 10 years later.

So, entering the 2000s after years of discouraging funding levels that caused layoffs during the 1990s, and the change of contractors in November 2000, all contributed to a situation where Y-12 was primed and ready for a culture shift regarding housekeeping, upkeep of facilities, demolition of structures that were beyond their useful life and just general cleanup. The time was ripe for positive change.

The fresh look of the 100 or more individuals who came on board in November, 2000, and soon thereafter, when BWXT Y-12 took over as management and operating contractor, served to speed up the changes needed. The new leaders found themselves in a state of needing to quickly do things. And yet the systems that were needed to accomplish these necessary changes were not as responsive as they might have hoped.

However, they did not easily give up and through persistence and patience with the systems, changes began. The initiative to improve housekeeping was one of the first targets.

Just as quickly as the emphasis on housekeeping improvement grew and the struggle to determine how to fund the demolition of structures no longer needed was started, the concept of Modernization was an early focus as well. *The Comprehensive Y-12 National Security Complex Ten Year Site Plan* was a primary tool used to document the various programs and plans.

By 2001, there were plans to "...develop a Facilities Reuse and Reduction Plan by 4/30/02. Reduce the operational footprint by 500,000 square feet by 9/30/02. This includes completion of at least 13 demolition projects. Decertify the MAA [Material Access Area] in Building 9206 by 9/30/03. Submit the first phase of a utility infrastructure modernization program as an FY2004 PED [Project Engineering and Design] item project."

The document continues, "The vast majority of the footprint reduction progress to date can be attributed to improved facility utilization and the excessing of material to render facilities excess to NNSA's needs. While this activity will continue to result in a number of facilities becoming excess, the modernization plan for Y-12 includes a number of new facilities that will render a significant amount of existing floor space excess to NNSA between FY 2006 and FY 2015."

In the 2002 Y-12 ten year comprehensive site plan is found written, "The 10-year baseline is complete covering all major projects planned at Y-12, including future weapons programs, modernization programs, infrastructure reduction projects, and technology development activities." See the future being planned?

So, the first couple of years in the 2000s were used to lay the groundwork for a modernization program. This initiative would ultimately result in the construction of a new production building (the first one in 30 years), the Jack Case Center, the New Hope Center, a new garage, a new records management building on site (and also the leasing of a modern records center), and the Highly Enriched Uranium Materials Facility.

And now breaking ground for the construction of the Uranium Processing Facility is almost within our grasp, looming on the near horizon. Change continues, and history is still being made at Y-12.