

Y-12's Building 9212 and the Uranium Processing Facility, part 2

The Uranium Processing Facility is planned to replace aged facilities at the Y-12 National Security Complex. Support for moving the construction of the facility ahead has caused the Los Alamos National Laboratory's Chemistry and Metallurgy Research Replacement Nuclear Facility to be delayed. Debate on the justification for UPF has been heightened by this increased funding.

Last week we reviewed some of the UPF related facts. Now we will review some facts about the aged facilities at Y-12 and conclude with the future requirements for uranium and how Y-12 and UPF fit into that historical and future national nuclear strategy.

At present Y-12 is operating highly enriched uranium processing in a series of buildings that have long since outlived their intended lifespan. Multiple renovations, repairs and increased cost of upkeep have become the experienced norm for Building 9212 and other old World War II era and early Cold War era structures used for highly enriched uranium processing. None of these structures were designed for uranium processing as it is needed today.

The ten separate wings of Building 9212 resulted from expanding into the spaces between the four original wings and adding E and E1 wings. Never would a facility be designed like that today to process uranium.

Yet, the workers at Y-12 have, for years, managed to sustain the Y-12 "Can Do" attitude and generate high quality nuclear work in facilities that were, of necessity, modified to meet safety requirements and altered to work around substantial and unavoidable productivity hurdles.

Building 9212 and associated facilities were my maintenance responsibility several years back now. At that time considerable modifications and improvements to the work flow were made to the extent possible and practical. The necessary adaptations needed in these older facilities would not be required in the new and appropriately designed UPF.

In the interim years to the completion of UPF, these aged facilities of Building 9212 and associated structures will continue to be maintained for safe use. Repairs and modifications will continue to be required just to keep going until an appropriately designed facility can be constructed and made operational. The work is not to modernize Building 9212; that is not feasible and cannot be done. It is merely shoring up deteriorated aspects of the structure.

Finally, Y-12 has not built a newly designed nuclear weapon for well over 20 years. The existing active nuclear weapons secondaries are brought back to Y-12 as needed for specific actions normally referred to as "life extension" programs. The enriched uranium from previously disassembled nuclear weapons is recycled as needed and is used as fuel for the nation's nuclear navy and research reactors as well as down blending to be used in nuclear power reactors.

Y-12 is a far cry from what is less and less frequently thought of now as a "bomb plant." It has transitioned into a multifaceted state-of-the-art national nuclear security enterprise.

In addition to being the nation's Uranium Center of Excellence and National Prototype Center, Y-12 leads the way in advanced, precision machining and measurement. Additionally, training is provided for many National Guard units and police forces in the detection and handling of nuclear materials.

Y-12's missions remain vital to the world's security, safety and freedom. Efforts to ensure nuclear materials are kept safe from terrorists continue, with materials being removed from former Soviet Union locations, Libya, Chile and, most recently, Mexico. Whenever the United States finds and purchases highly enriched uranium, Y-12 is sent to safely and securely retrieve it.

Y-12 continues to disassemble the secondaries from every weapon removed from active status. And, as the nation's nuclear weapon arsenal is being reduced from tens of thousands to 1,550 active weapons, Y-12's workload remains high. The need for the UPF increases with the workload.

In summary, the facts support the UPF as a key element in our nation's nuclear strategy. UPF will provide all of the nation's uranium processing needs, including nuclear weapons, protecting and finding peaceful and productive uses for our nation's nuclear stockpile, fueling the nuclear Navy, and supplying fuel for nuclear research reactors.

Y-12 will continue to make history as these new facilities enhance our ability to serve the nation through unique nuclear missions. The future will bring even more challenges and Y-12's "Can Do" attitude will meet those as well.