

UPF OVERVIEW



The Uranium Processing Facility (UPF) supports the Uranium Mission Strategy, which ensures that enriched uranium will continue to be safely and securely used for the U.S. nuclear stockpile, nuclear nonproliferation, and naval nuclear propulsion. UPF will relocate Y-12 enriched uranium processes into a new, modern, more efficient, and safer facility, allowing the National Nuclear Security Administration (NNSA) to transition out of the aging Building 9212.

Consolidated Nuclear Security, LLC, is building UPF for the NNSA through a subcontract with Bechtel National, Inc.

UPF is a multiple-building complex. This approach allows each facility to be constructed to the safety and security requirements appropriate to each building's function, promoting cost-saving opportunities in construction and equipment installation.

NNSA has committed to Congress to deliver UPF through a series of seven subprojects:

- Site Readiness – Complete
- Site Infrastructure and Services – Complete
- Substation – Complete
- Mechanical Electrical Building – Complete
- Process Support Facilities – Complete
- Salvage and Accountability Building – Underway
- Main Process Building – Underway

The Y-12 National Security Complex has three primary national security missions that protect the U.S. and its allies around the world: maintaining the U.S. nuclear deterrent, reducing global nuclear threats, and fueling the U.S. nuclear Navy. Currently, key operations that support these missions are conducted in buildings that originated in the 1940s and are costly to operate and maintain. UPF is one of the Department of Energy's largest investments in Tennessee since the Manhattan Project and one of the National Nuclear Security Administration's largest construction projects. UPF will support Y-12's key missions and will ensure the long-term viability, safety, and security of enriched uranium capabilities in the United States.





Two tower cranes, which are 300 and 360 feet tall, were installed in early 2018 as part of the construction of UPF. Locating high-capacity, stationary cranes within the footprint of the buildings gave UPF the ability to reach every spot in the construction zone, making materials handling safe and efficient. The cranes served the project well and were demobilized in 2024.



Commissioning

Construction and testing create a facility with lights, water, HVAC, and other functioning needs but not a facility that is ready to operate. Commissioning encompasses what you need to turn a functional facility into an operational facility—everything from engineering documentation, to hiring and training operators, to the needed office supplies. To start up UPF, more than 44,000 tests of equipment and systems are required.

UPF Fast Facts

Concrete	227,000 cubic yards	Enough to cover a football field 132 feet deep, or as tall as an 11-story building
HVAC ductwork	1.7 million pounds	Equals the weight of almost 70 school buses
Pipe	171,000 feet	Equals about 32 miles, or about 19 lengths of the Golden Gate Bridge
Rebar	11,000 tons	Weighs as much as 275 loaded semi-trucks
Structural steel	10,000 tons	Weighs as much as 5,000 average-sized cars
Wire and cable	3.3 million feet	Enough to stretch from Washington, D.C. to Atlanta



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