

U.S. Stable Isotope Production and Research Center



Oak Ridge National Laboratory (ORNL) is building the U.S. Stable Isotope Production and Research Center (SIPRC) to expand the nation's capability to enrich stable isotopes for medical, industrial, research, and national security uses. The demand for these isotopes has increased significantly over the past decade, and SIPRC will reduce our nation's dependency on foreign suppliers for critical isotopes.

East Tennessee has a rich history of producing enriched stable isotopes. From 1945-1998, more than 230 stable isotopes were generated at the now-decommissioned calutron facility at the Y-12 National Security Complex. However, those stockpiles are being depleted, and the United States has no existing domestic broad-scope enrichment capability, so the Department of Energy (DOE) is making a significant investment in the construction of SIPRC.

The new facility is on ORNL's main campus and is designed to allow for future expansion both within and adjacent to the planned footprint. It will house two types of isotope separation technologies.

For more than a decade, ORNL has performed extensive design, research, development, prototyping, and production demonstration activities to advance the technologies that will be installed in this new facility. SIPRC will provide DOE with multiple isotope production systems that will be capable of simultaneously enriching multiple stable isotopes spanning the periodic table.

Details



64,000-square-foot
single-story facility



Multiple production lines



Lab support spaces



Space for future expansion of
equipment /infrastructure



Enrichment equipment based
on known designs



Essential for the nation



Enables multiple production
campaigns of enriched
stable isotopes



Uses innovative technology



Paul Larson

Senior Project Manager -
Stable Isotopes
865-576-8339
larsonep@ornl.gov