

Radioisotope Processing Facility



ORNL has a legacy in isotope production and innovation. The lab produces, purifies, and ships more isotopes than any other place in the world—more than 250 isotopes for medicine, industry, research, and national security.

At ORNL, DOE plans to build a Radioisotope Processing Facility (RPF), which will transform U.S. capability to meet the growing demand for critical radioisotopes. The demand for medical isotopes alone has doubled over several years, yet the U.S. isotope production infrastructure is already at capacity.

The RPF will provide U.S. isotope independence by eliminating reliance on foreign supply for mission-critical radioisotopes. It will also improve efficiency and reliability and provide a stable radioisotope supply chain for industrial and medical applications.

A Hazard Category 2 nuclear facility, the RPF will utilize modular hot cells that can be configured to meet isotope processing needs of today and the future. A flexible design provides room for program growth and research and development space to enable the identification of the next breakthrough radioisotope. The RPF will be located near ORNL's High Flux Isotope Reactor (HFIR) and will benefit from ORNL's unique technology and extensive expertise.

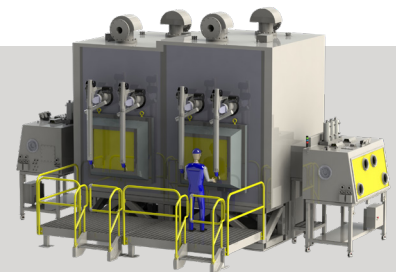
DETAILS

- Modular steel hot cells with ability to reconfigure
- Gloveboxes and processing bays
- Cutting-edge, specialized tools for unique isotope work
- Extra space for later expansion
- Space that can be current Good Manufacturing Practice (cGMP) compliant
- Located in Melton Valley near High Flux Isotope Reactor (HFIR)
- Nuclear Hazard Category 2 designation



Mission-need isotopes planned to be processed at RPF

- Actinium-227
- Iron-55
- Ruthenium-106
- Barium-133
- Krypton-85
- Selenium-75
- Carbon-14
- Nickel-63
- Strontium-90 (purified)
- Iridium-192
- Promethium-147
- Thorium-229



CONTACT:

Bryan Leber
RPF Project Director
leberbc@ornl.gov
832-312-9716



U.S. DEPARTMENT of ENERGY | Office of Science



in www.ornl.gov jobs.ornl.gov