

“There now is no margin for further delay in recapitalizing the physical infrastructure needed to produce strategic materials and components for U.S. nuclear weapons.” - 2018 Nuclear Posture Review

Mission: Produce no fewer than 80 plutonium pits per year by 2030 to meet Department of Defense requirements

Overview

A plutonium pit is a key component of a nuclear weapon. During the Cold War, the United States produced approximately 1,000 pits per year at the Rocky Flats Plant in Colorado. Rocky Flats was closed in 1992 and today the United States does not have the capability to manufacture new pits at the rate needed to maintain the nuclear deterrent. A delay in revitalizing this capability will eventually necessitate a larger, more expensive recapitalization effort in the future.



Former Rocky Flats Plant

Driving Factors

- **Plutonium Aging:** Plutonium is a radioactive material and changes over time
- **Safety:** Restoring this capability will produce pits with enhanced safety features
- **Global Risk:** An evolving, uncertain geopolitical landscape calls for the United States to recapitalize defense plutonium capabilities
- **Modernization:** NNSA must extend the life of the U.S. nuclear stockpile for strategic deterrence

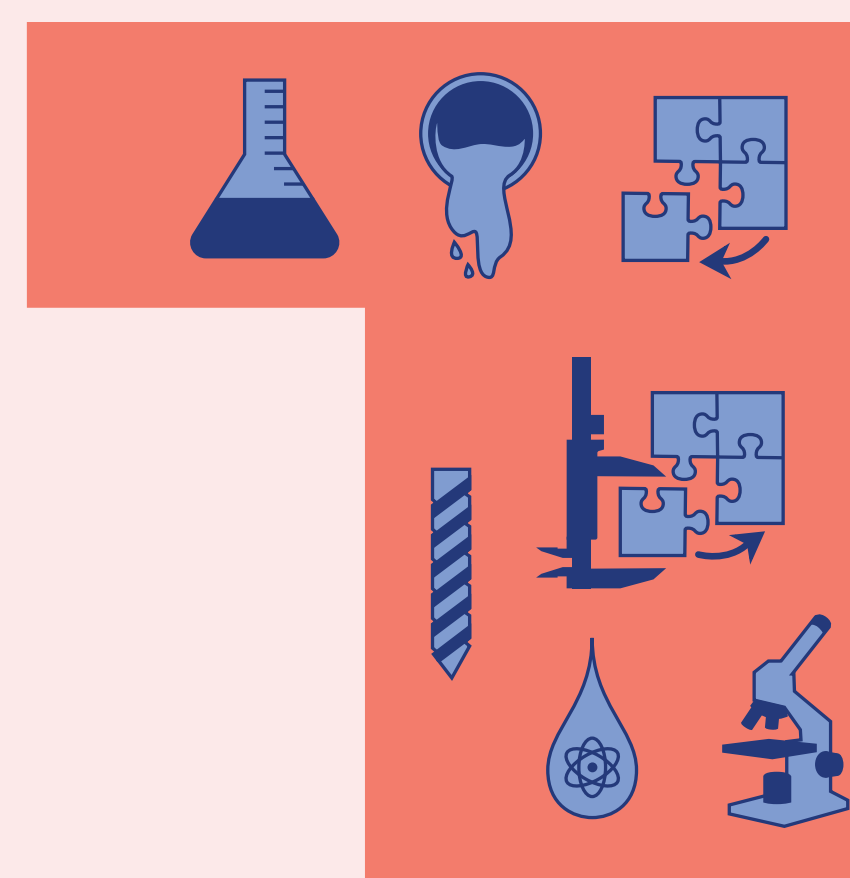
Two-Pronged Approach

NNSA's **recommended alternative** is to repurpose the Mixed Oxide (MOX) Fuel Fabrication Facility at the Savannah River Site to produce at least 50 pits per year and no fewer than 30 pits per year at Los Alamos National Laboratory. This approach:

- Addresses 2018 Nuclear Posture Review requirements
- Was certified by the Nuclear Weapons Council in May 2018
- Is informed by analysis of alternatives, engineering assessment, and workforce analysis
- Maintains Los Alamos National Laboratory as the Nation's *Plutonium Center of Excellence* for R&D
- Improves resiliency and responsiveness of the Nuclear Security Enterprise to adapt to shifting requirements and counter future threats

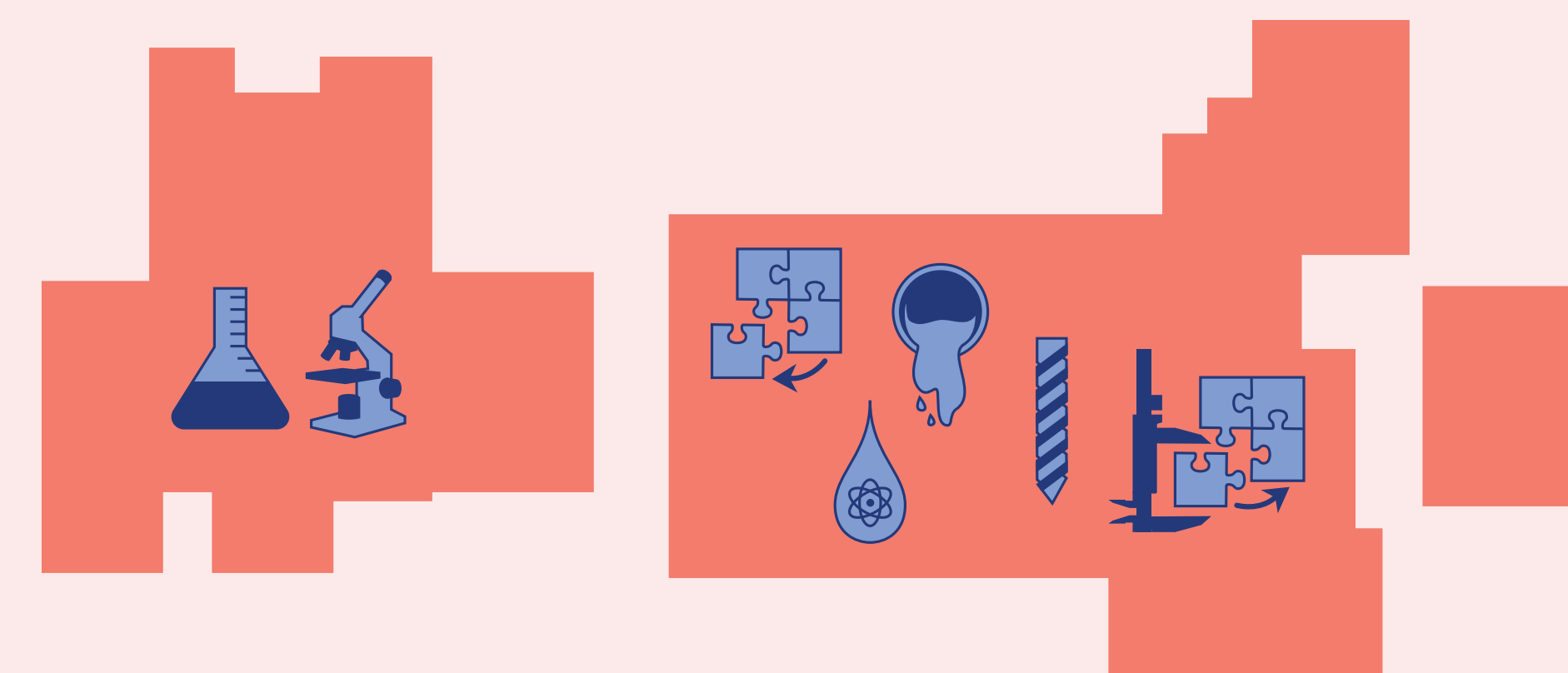
More Responsive and Flexible Infrastructure

50 pits at Savannah River Site



Proposed Savannah River Plutonium Processing Facility

30 pits at Los Alamos National Laboratory



Radiological Laboratory Utility Office Building

Plutonium Facility 4

Activities

