

SRNS: Supporting the Delivery of Strategic Materials

Proposed Savannah River Plutonium Processing Facility (pSRPPF)

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SRPPF Mission Director

Annual Nuclear Deterrence Summit

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SRNS: Supplying solutions around the world



Environmental Stewardship

for soil, water
and facilities



Nuclear Materials for National Security

nuclear weapons
deterrent



Securing Nuclear Materials

to prevent
unwanted proliferation



Transforming Nuclear Materials

into assets and
stable wasteforms



Savannah River National Laboratory

putting science to work



Additional Support Services

Emergency Services • Water • Electrical
Cyber/IT • Roads • Construction • Maintenance

6,800

Employees
“Making the
World Safer”

World-class
safety culture

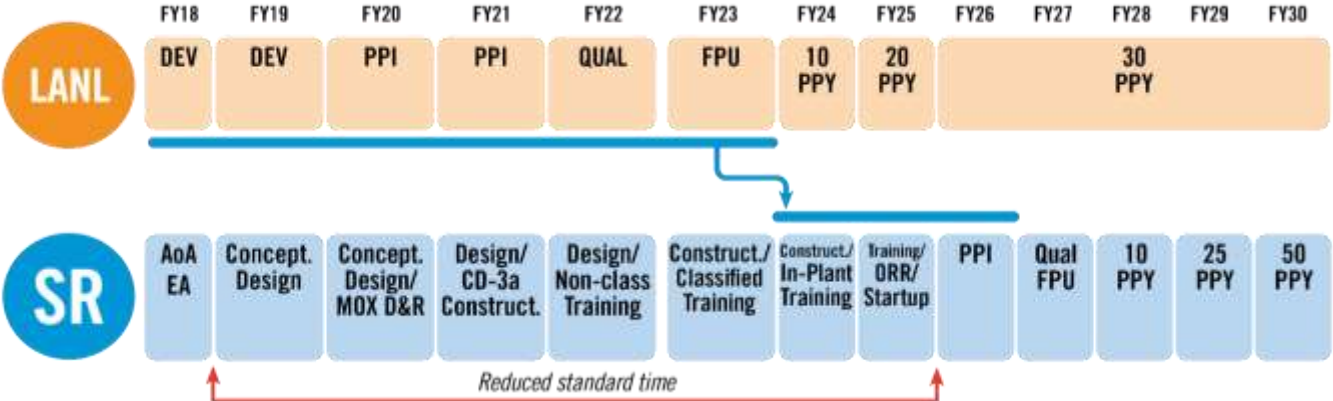
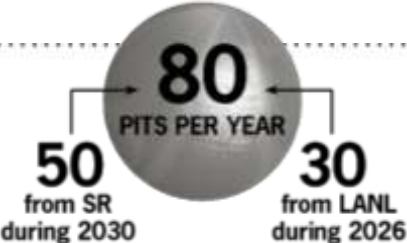
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Strong community
support

Plutonium Processing Mission Objective

Reliable delivery of
No fewer than 80 pits per year*

50 ppy* during 2030 at Savannah River

30 ppy* during 2026 at Los Alamos National Laboratory



SRPPF project's cost and schedule baseline will be established when design is 80% complete.

- Two facilities provide more confidence that production goals will be met
- Leverages NNSA investment in MOX facility and resources
- Maximizes transfer of LANL and LLNL technical and process knowledge
- SRS brings plutonium production experience

Repurposing the 226-F Complex for the Proposed SRPPF

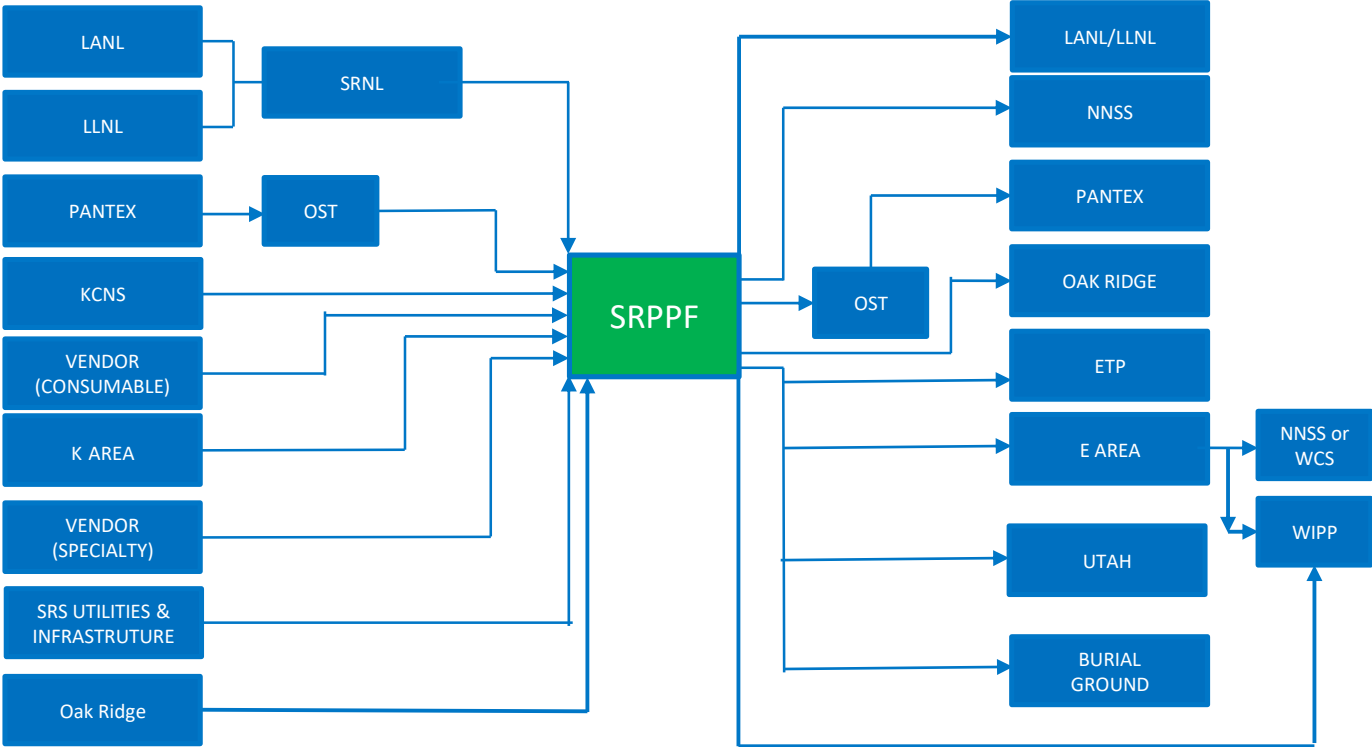


- 500,000-square-foot seismically qualified production facility
- 11 support facilities on ~110 acres
- >100 construction storage and support structures
- Site infrastructure includes electrical; domestic and fire protection water; sanitary/sewage systems in all occupied buildings
- 225,000 sq.ft. of office space available within the 226-F Complex

The 2020 Current State



pSRPPF Programmatic Material Interfaces



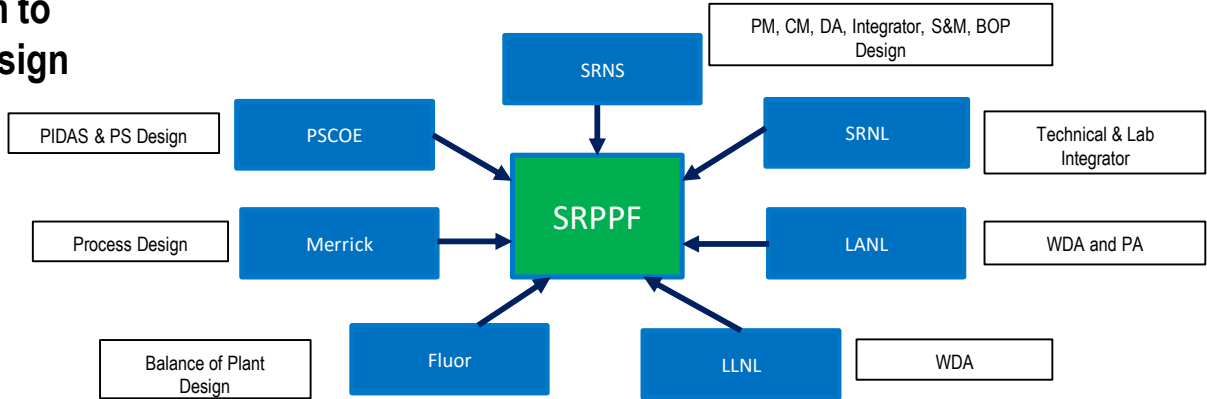
pSRPPF Project Progression

- **Proposed Savannah River Plutonium Processing Facility (SRPPF)**

- Execute per DOE Order 413.3B, Program and Project Management for the Acquisition of Capital Assets
 - *CD-0 Approve Mission Need – Complete*
 - *Analysis of Alternative (A of A) and a supplemental Engineering Assessment (EA) - Complete*
 - *Cost and schedule plan for CD-1 submitted in January 2019*
 - *Direction to proceed with Conceptual Design in February 2019*
 - *PRD specific to SRPPF issued April 2019 and revised June 2019*

- **Assembled contractor Project team to produce and deliver conceptual design package to enable CD-1 approval by NNSA by September 2020.**

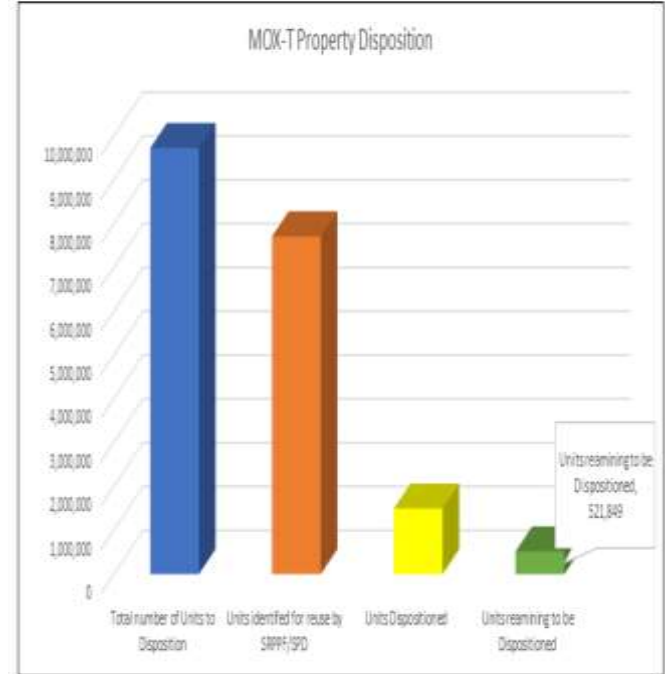
- Scope is to design the process and non-process equipment and infrastructure support facilities



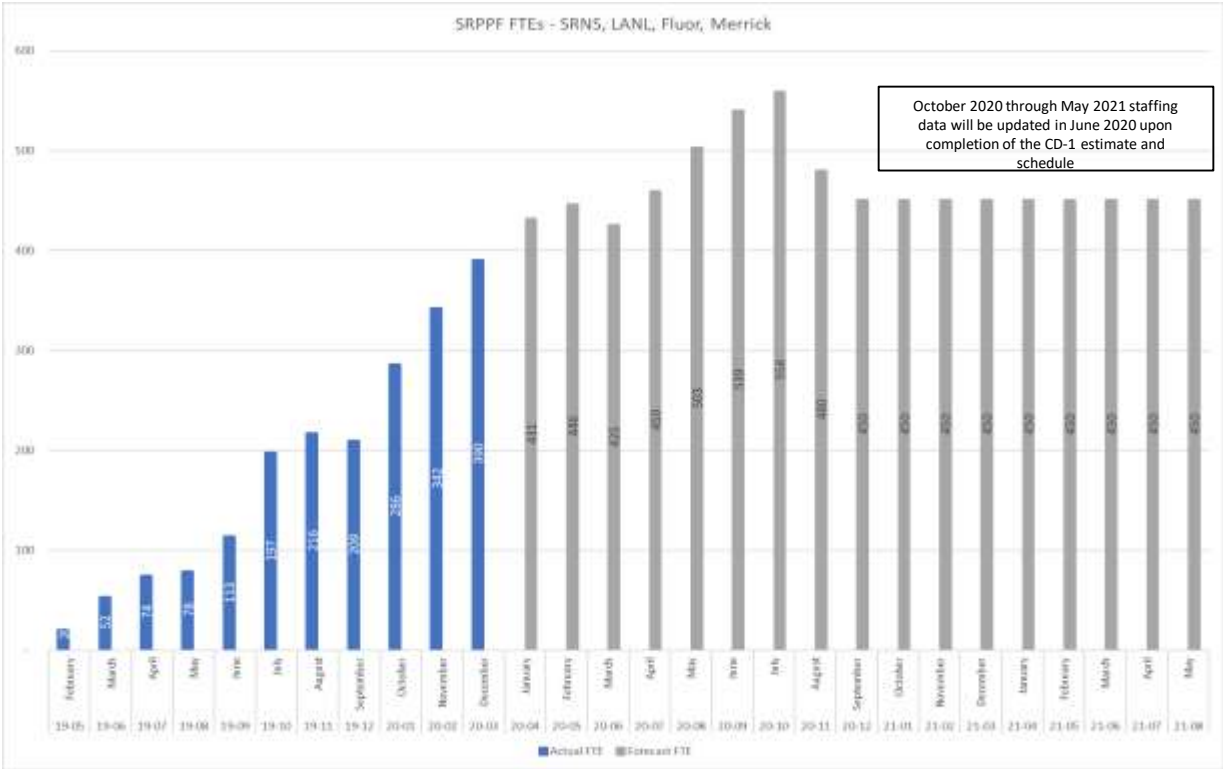
pSRPPF Project Progression - continued

- **Conducted benchmarking of UPF for project management and several nuclear sites for Pu processing**
 - Incorporating Lessons Learned and Best Practices from LANL, LLNL, RF, UPF, AWE, and SRS
- **Drafted Technology Readiness Assessment on critical technology elements; all elements at TRL 6**
- **Replicated LANL flowsheet and utilizing LANL and SRS production throughput models to validate equipment count and layout**
- **NNSA began developing a NEPA Environmental Impact Statement to evaluate the impacts of establishing a pit mission at SRS**
- **Initiated knowledge transfer and training for SRS team using two prong approach**
 - Assignment rotations at LANL
 - Activating Training and Operations Center

Disposition and Identified Potential Reuse of Uninstalled MOX Project Equipment and Commodities



SRNS pSRPPF Project Staffing Plan



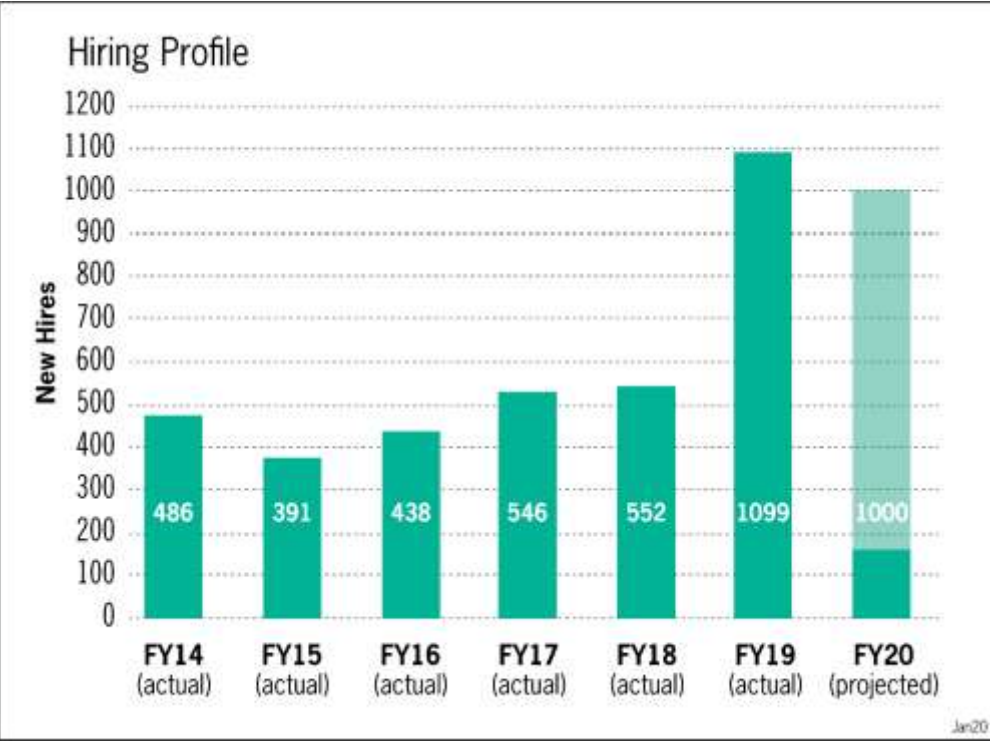
Changing SRNS Workforce Landscape

3,664
new full-service employees

FY14-present

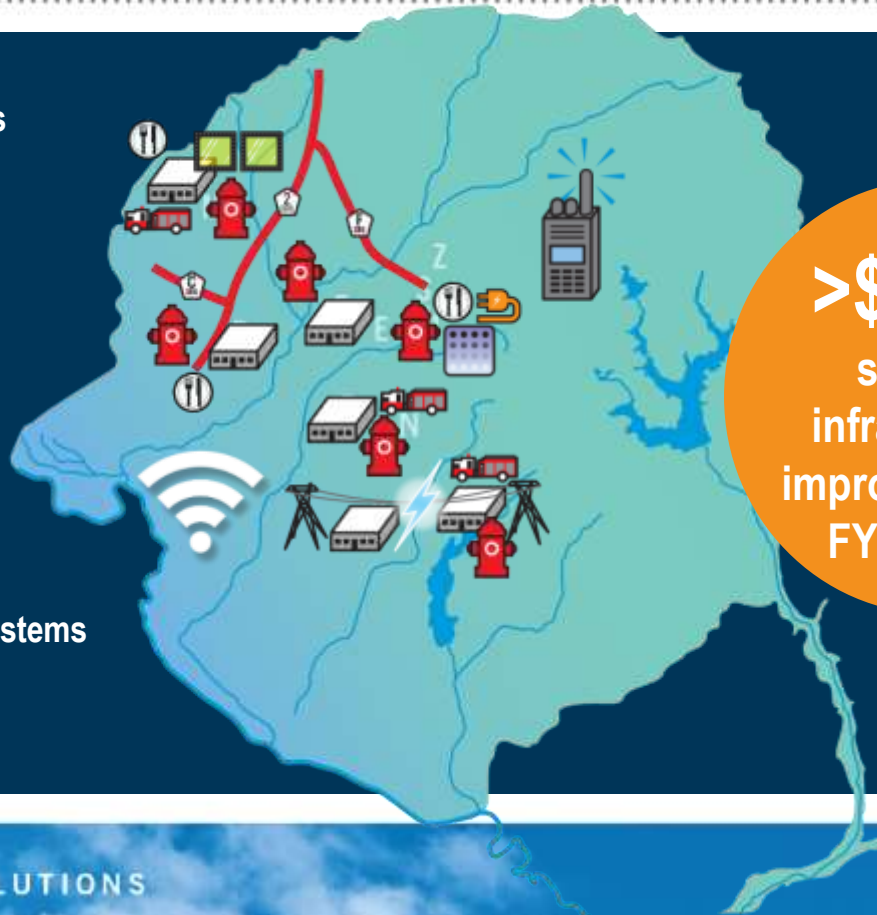
80%
hired from local area

46
average age of employees



SRS Infrastructure Investment Behind the NNSA Mission

- Refurbished ~40 miles of paved roads
- Replaced 22 roofs
- Refurbished 29 firewater systems
- Replaced all emergency vehicles
- Replaced 13 of 16 SRNL shielded cell windows
- Replaced radio systems
- Replaced major power distribution systems
- Habitability upgrades



>\$350M
spent on
infrastructure
improvements in
FY16 - FY19

pSRPPF Project Execution Challenges

- Continue accelerated ramp up of staffing, including large EPC experience, backfill for longstanding Pu processing expertise, and obtaining security clearances
- Manage the design integration of multiple design agencies in multiple locations
- Confirm the approach to the IT infrastructure
 - classified and unclassified
- Accelerate schedule of final design, long lead procurement and construction to meet production commitment during 2030
- Drive supply chain availability, capability and capacity
- Stable funding is required for the project

