Sandia National Laboratories

Exceptional service in the national interest

Sandia Critical Experiments Program

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ANS Webinars
Educator Training
March 7, 2024

SAND2024-02467PE

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U.S. DEPARTMENT OF ENERGY

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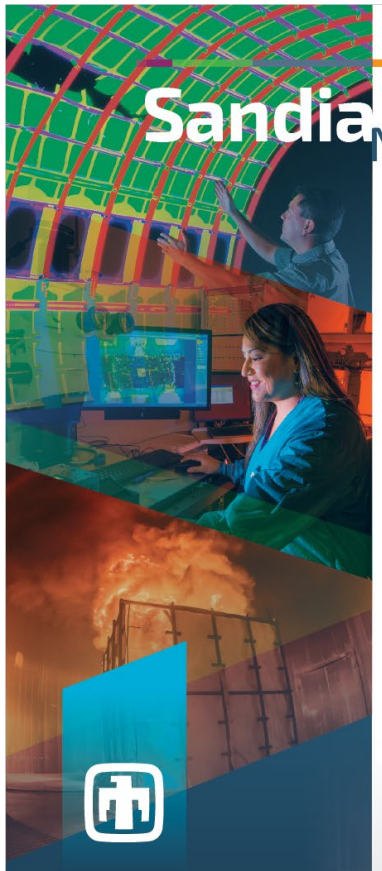


Sandia National Laboratories

Exceptional service in the national interest

Sandia grew out of America's World War II effort to develop the first atomic bombs. Today, keeping the U.S. nuclear stockpile safe, secure and effective is a major part of Sandia's work as a multidisciplinary national security, engineering laboratory. But Sandia's role has evolved to address the additional complex threats facing our country. Sandia carries out research and development in:

Nuclear Deterrence – Supporting U.S. deterrence policy by helping assess, secure and sustain the nuclear arsenal.

National Security Programs – Supplying new capabilities to U.S. defense and national security communities.

Global Security – Developing systems to monitor emerging threats, protecting nuclear assets and materials, and addressing nuclear emergency response and nonproliferation worldwide.

Energy & Homeland Security – Ensuring stable energy resources, protecting the grid and physical infrastructure, and helping protect the nation against nuclear, radiological, chemical and biological threats.

Advanced Science & Technology - Fundamental science to promote national security, economic competitiveness and improved quality of life.

Sandia's science, technology and engineering foundations enable our unique mission. The laboratory's highly specialized research staff is at the forefront of innovation, collaborating with universities and companies and performing multidisciplinary science and engineering research programs with significant impact on U.S. security.

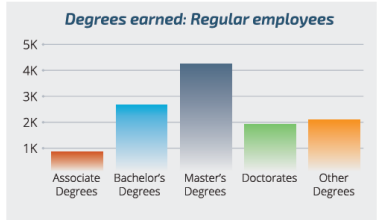
People

Sandia's staff of over **16,700** includes more than **7,613** with advanced degrees.

www.sandia.gov

Employees

In FY23, Sandia had a workforce of 16,736, including 14,368 regular employees, 944 limited-term employees, 1,090 students, 315 post-docs, and fewer than 20 faculty/recurrent staff. Seventeen percent of Sandia's technical staff work in electrical engineering, 18 percent work in mechanical engineering, and 27 percent are in other engineering fields. Some 18 percent of the technical staff work in computing, 8 percent work in cybersecurity, 3 percent work in physics, 1 percent are in chemistry, and 4 percent are in math and other science.



- Electrical Engineering, **17%**
- Mechanical Engineering, **18%**
- Other Engineering Fields, **27%**
- Computing, **18%**
- Cybersecurity, **8%**
- Physics, **3%**
- Chemistry, **1%**
- Math and Other Science, **4%**

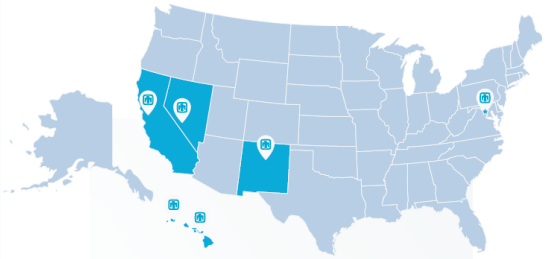
Note: The figures do not add up to 100 percent, due to rounding.

Degrees Earned: Regular Employees

Sandia regular employees have earned 965 associate degrees, 3,259 bachelor's degrees, 5,308 master's degrees, 2,305 doctorates, and 2,531 other degrees as of the end of FY23.

Sandia Sites

Sandia operates in Albuquerque, N.M.; Livermore, Calif.; Tonopah Test Range, Nev.; and Kauai Test Facility, and Maui, Hawaii; and has leased space at other locations, including a Washington, D.C., office.



- **Albuquerque** — 707 buildings and 13,724 acres
- **California** — 78 buildings and 410 acres
- **Tonopah** — 81 buildings and 3,520 acres
- **Kauai and Maui** — 46 buildings and 133 acres
- **Leased facilities, all locations** — 17 buildings and 2,713 acres

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Sandia Critical Experiments

Located at the Albuquerque Site

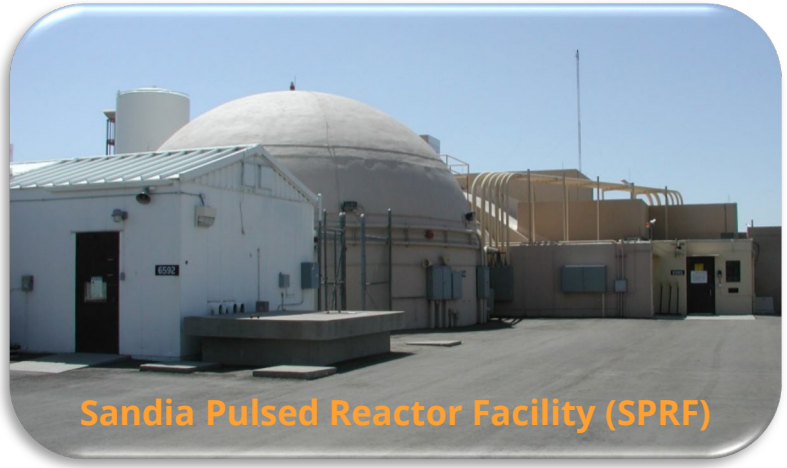
- TA-V
  - Long History of Reactor Operations
  - Sandia Pulsed Reactor Facility (SPRF)

Purpose

- Design, Perform, and Publish Critical Benchmark Experiments
- Provide Hands-on Training for Criticality Safety
- All Work is supported by the NCSP, funded and managed by the NNSA for DOE

Fuel and Design

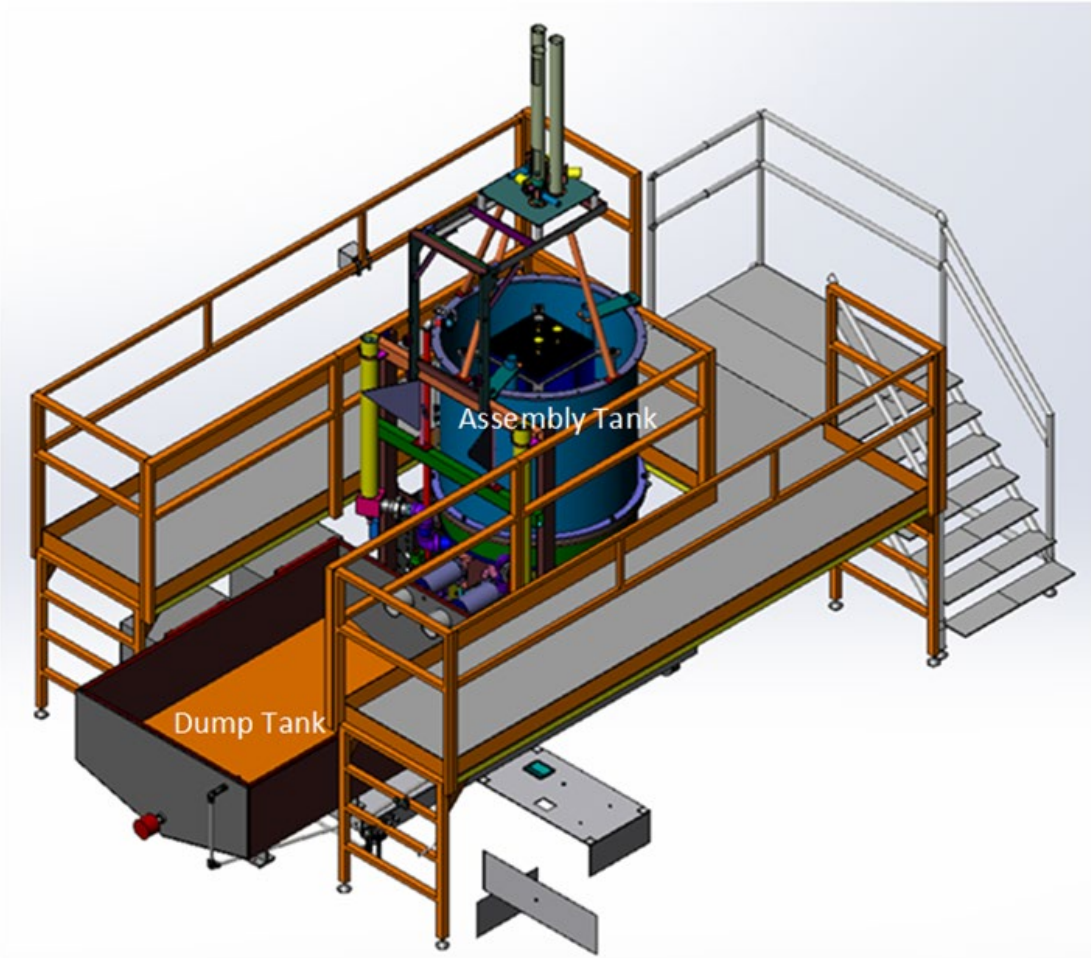
- Low Enriched Uranium (fuel rods)
  - 6.9% enriched
  - 4.3 % enriched
- Water Moderated and Reflected

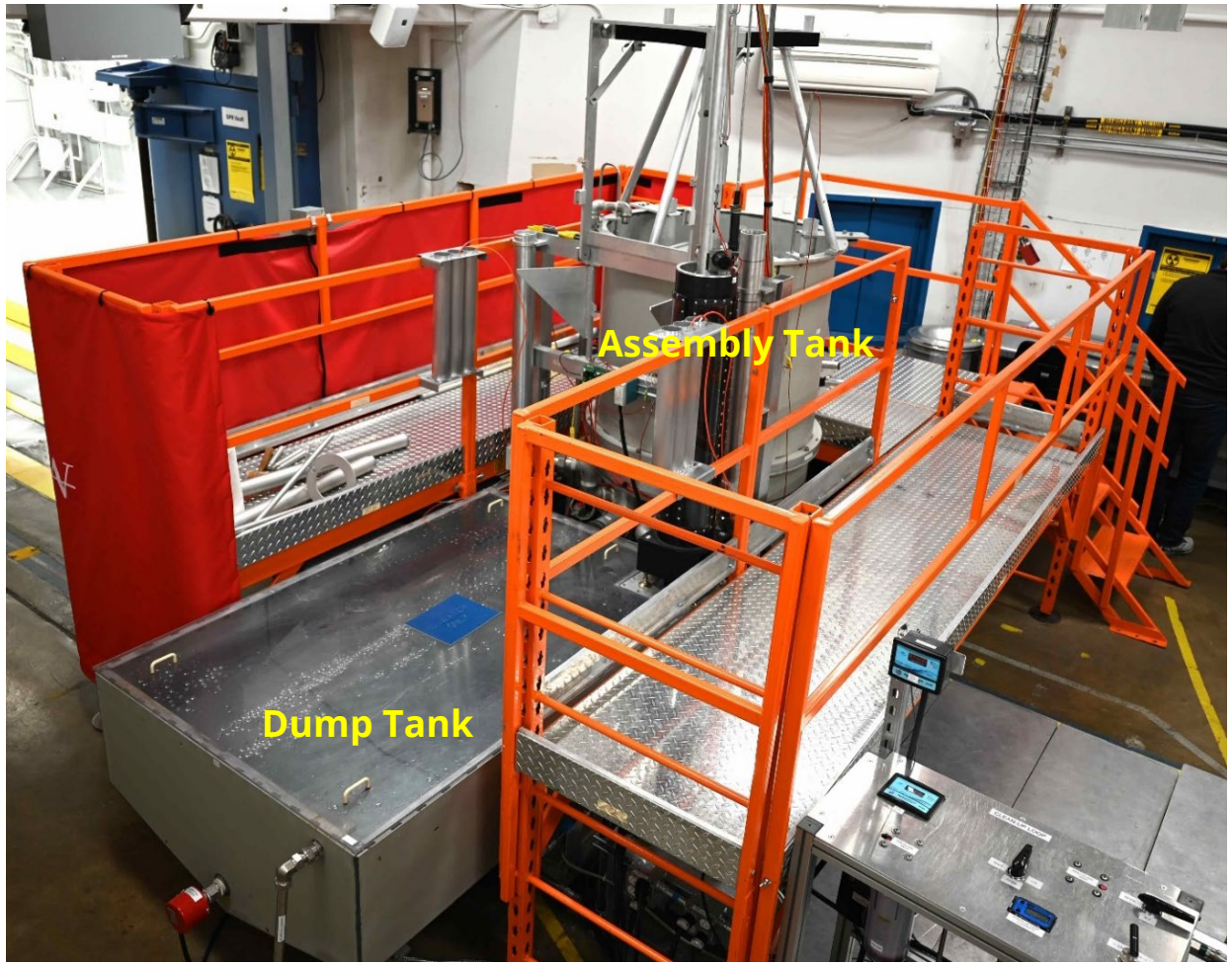


Sandia Pulsed Reactor Facility (SPRF)

CX Assembly Tank and Dump Tank

Sandia Critical Experiments





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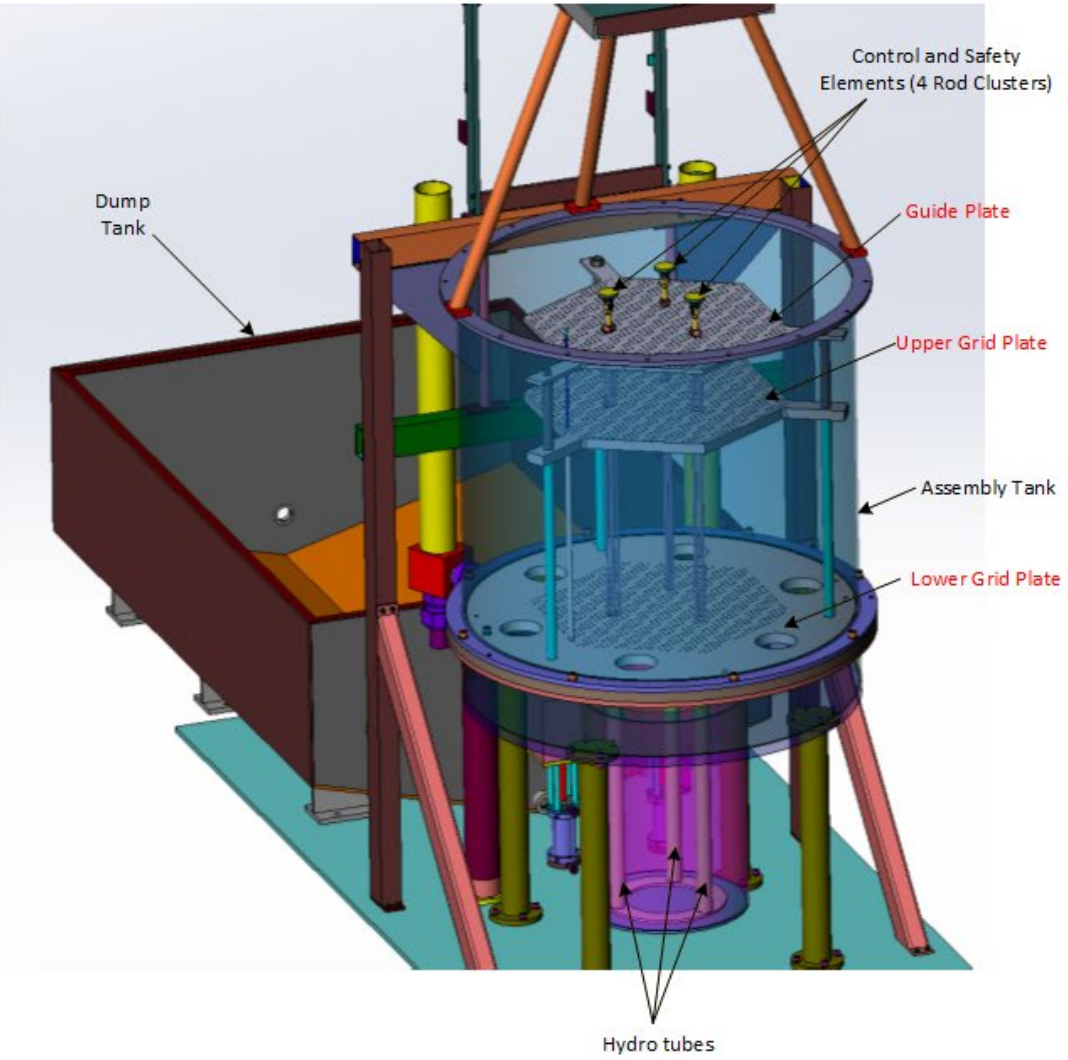

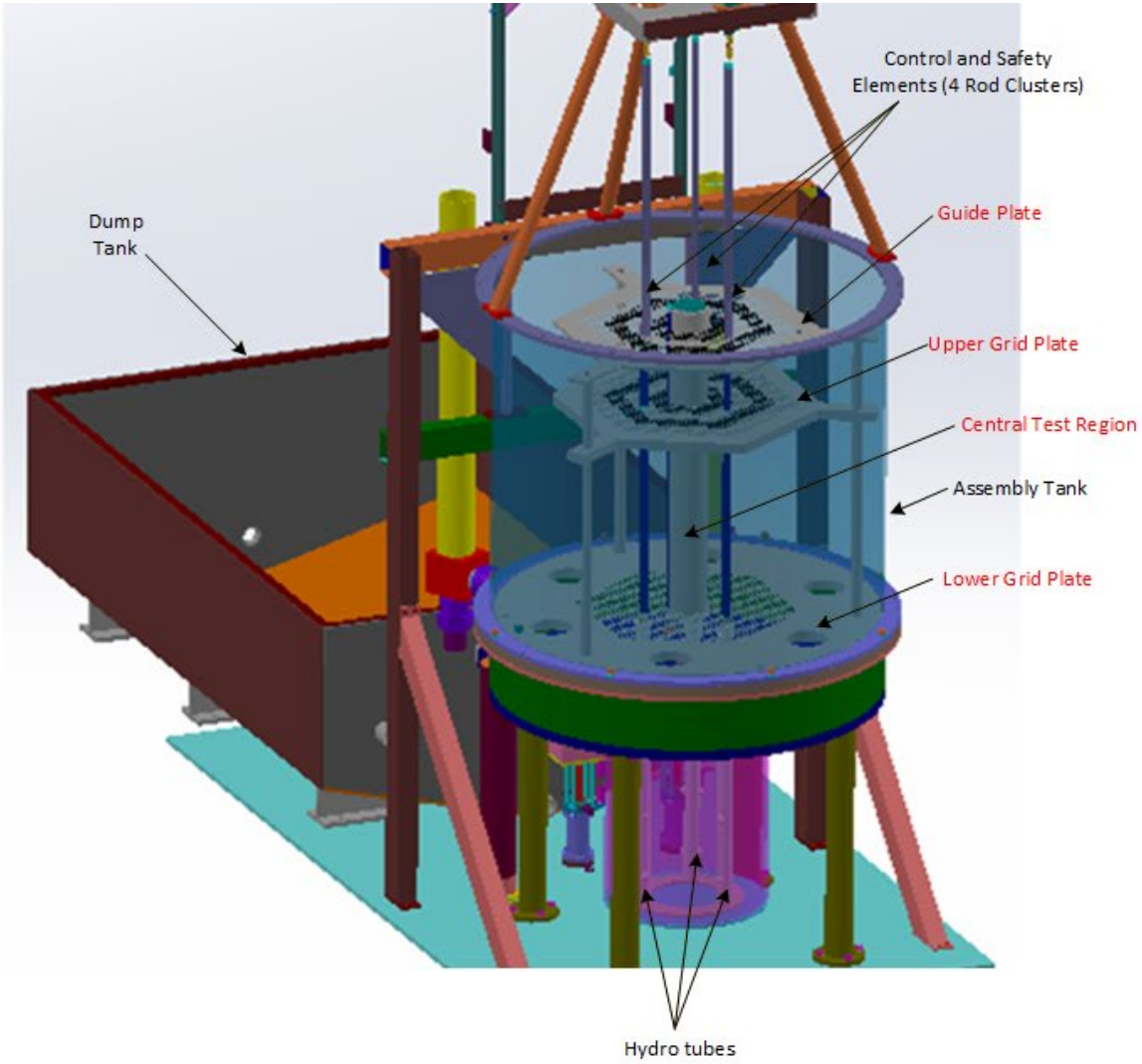

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