



Unlocking Mission Readiness with Next-Gen Technologies for Defense

Joe Miller, President
BWXT Government Operations



At BWXT, we deliver innovative nuclear solutions to create a better world

OUR MISSION

- Global Security
- Clean Energy
- Nuclear Medicine
- Space Exploration
- Environmental Remediation

\$2.7B

2024 Revenues

420

Reactors delivered for Naval Nuclear Power

300+

Commercial nuclear steam generators

10,000

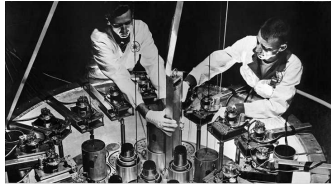
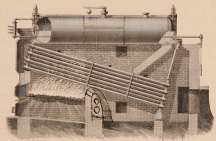
Employees

BWXT is the industry leader in designing, manufacturing, testing and delivering nuclear reactors, fuel and components across mission-critical naval, terrestrial & space applications

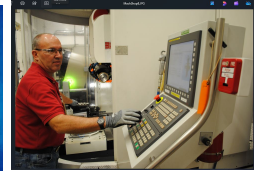
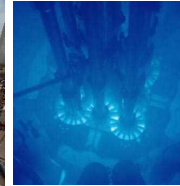
165-Year History of Innovation

From Babcock & Wilcox to BWXT

BABCOCK & WILCOX
TUBULOUS SAFETY BOILER



CREDIT: US Navy



CREDIT: US Navy

USS Nautilus



Project PELE



Great White Fleet



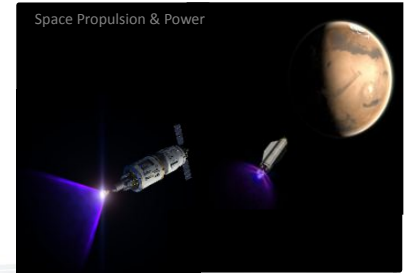
NS Savannah



LTC Hot Cell



CREDIT: US Navy



Space Propulsion & Power

Boiler Era

Nuclear Era

Naval Reactors

Commercial Nuclear

Civil Maritime

Bespoke Nuclear

Space

BWXT Today

Delivering innovative nuclear solutions to create a better world

DEFENSE AND SPACE



- ⚙ Sea
- ⚙ Land
- ⚙ Space

NUCLEAR ENERGY



- ⚙ SMR/
MicroReactor
- ⚙ Components
- Field &
- ⚙ Engineering
Services

NUCLEAR FUEL



- ⚙ TRISO
- ⚙ HEU
- ⚙ CANDU
- Nuclear Fuel
Services
- ⚙ NEC Community

NUCLEAR MEDICINE



- ⚙ BWXT Medical

COMPLEX SITE OPS



- ⚙ Nuclear
Operations
- Environmental
Management &
- ⚙ Facility
Decommissioning

With 4 million sqft manufacturing space across eastern seaboard

Complex
Innovation
Programs

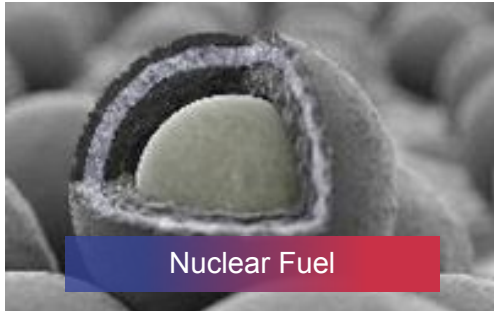
within

Highly
Regulated
Environments



Delivering Rapid Innovation for Complex Environments

Prototyping Advanced Reactors for National Security Missions



Making the Complex Possible

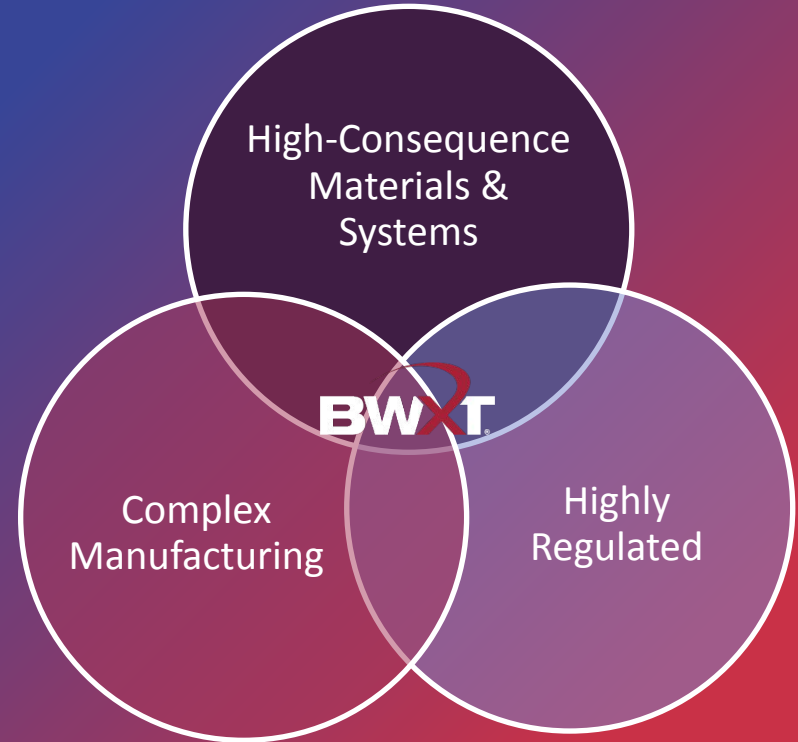
Nuclear products and components are high-consequence and complex

- Multiple regulators – Nuclear Regulatory Commission (NRC), OSHA, EPA, DNFSB, FDA
- Spans all classified designations
- Design, build & test from prototype to mature products
- Extensive supply chain – from uranium mining to fuel processing and reactor manufacturing through end of life for nuclear products

Delivering to the US Navy, Dept of Energy, Dept of War



Challenge of Building Nuclear Products



Transforming Operational Agility

with

Compact Energy Solutions



BWXT Advanced Nuclear Reactor Markets

Significant Opportunity Driven by Increasing Demand, Need for Resilient Energy



Military
Installations



Data Centers



Municipalities,
Campuses

Ideal energy solutions are dual-use and include communities & industry

Project PELE

DoW Strategic Capabilities Office

- Rapidly deployed 1.5MW electric for 3 years
- Removes unnecessary logistics tail
- Remote microgrid with direct connection
- Transportable via truck, train, rail, plane
- Entire System = 4 x 20ft CONEX Boxes
- Core assembly started July 2025 – on target for September 2028 Executive Order

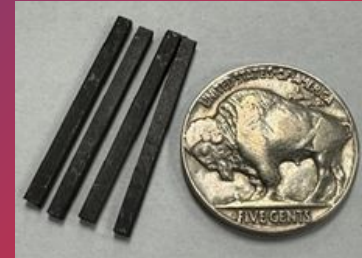


Ideal for military ground stations, remote outposts, recharge stations

BWXT Advanced Nuclear Reactor BANR

Resilient & reliable baseload energy

- 22MW electric or 75MW thermal
- Flexible power: electricity, heat, or co-generation
- On- and off-grid solution
- Consistent baseload no matter the conditions
- High density, BWXT-fabricated fuel enables 5+ year refueling cycles



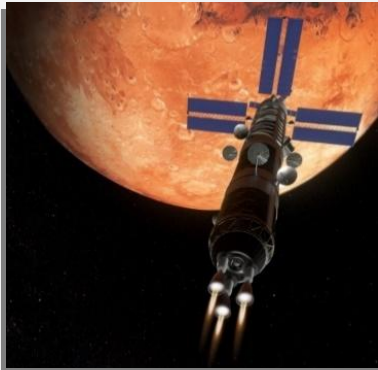
*Ideal for mines, oil & gas, data centers
and military installations*

BWXT Space Systems

Executing flagship power & propulsion programs with US Government & industry partners

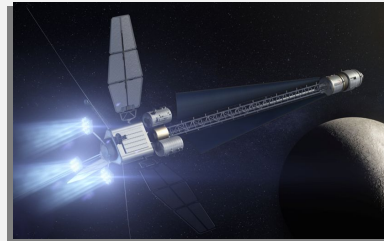
Nuclear Thermal Propulsion (NTP)

- Extending human exploration to Mars
- Increase space domain awareness in cis-lunar



Nuclear Electric Propulsion (NEP)

- JETSON is the first demonstration of key technologies for lunar surface applications with extensibility to higher powers for more complex missions



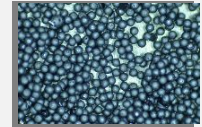
Fission Surface Power (FSP)

- Designing systems for higher power levels
- Adaptable to diverse lunar and Martian environments



Fuel for Space

- Foundational fuel design and development underway



The future of space exploration is nuclear powered

Accelerating Advanced Technologies

through

Cross-Sector Collaboration

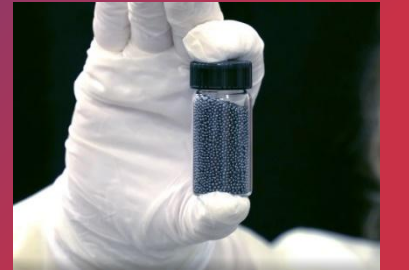
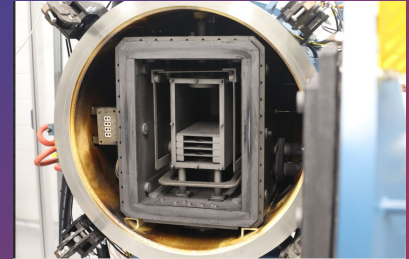


Transforming the Nuclear Industry for 21st Century Demand

What We've Been Up To

Design – Build – Test of Generation IV high-temperature gas-cooled reactor (HTGR), rooted in proven technologies

- Advanced modeling and simulation tools
- Manufacturing state-of-the-art precision tooling
- Digital Twinning
- Robotics
- Metal and composite 3-D printing
- Advanced welding
- Quality assurance & testing
- Investments in CVI furnaces, sensors, testing rig
- PIE and NDE capabilities
- Advanced lightweight, high strength metals
- Growing the nuclear supply chain



Cross-Sector Collaboration

With Other Industry-Leading Companies

PELE Transportable Reactor



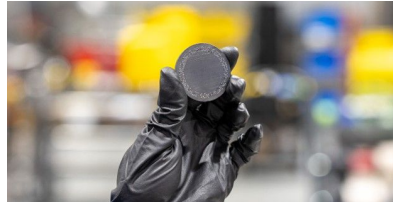
Northrop Grumman

- Design & build Pele control module, plant instrument and control systems, and semi-autonomous controls

Rolls-Royce LibertyWorks

- Design and build of the thermal and power conversion modules
- Electrical delivery systems

TRISO Nuclear Fuel

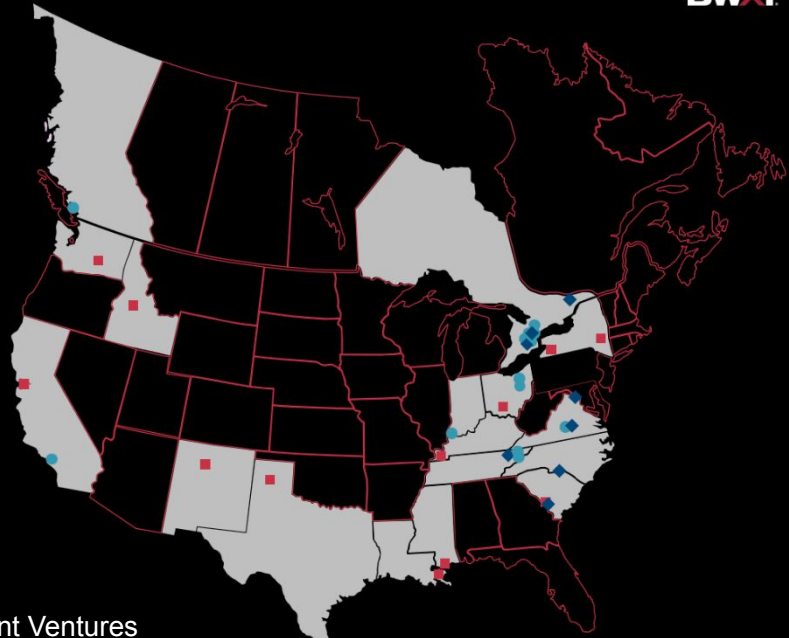


Kairos Power

- Optimizing commercial production of TRISO nuclear fuel
- For use in Kairos Power's advanced reactor fleet, commercial sale

Joint Ventures

- UT-Battelle, LLC. – TN
- Isotek Systems, LLC. – TN
- BWSR – Kesslerling Site Operations, NY;
- BWSR – Naval Reactors Facility, ID
- West Valley Cleanup Alliance, LLC. – NY
- Fluor-BWXT Portsmouth, LLC. – OH
- Four Rivers Nuclear Partnership, LLC. – KY
- Battelle Energy Alliance, LLC. – ID
- Lawrence Livermore National Security, LLC. – CA
- Savannah River Mission Completion, LLC – SC
- PanTeXas Deterrence LLC – TX
- Hanford Tank Waste Operations & Closure, LLC – WA
- Newport News Nuclear BWXT-Los Alamos, LLC. (N3B) – NM



BWXT Technical Services Group

Advancing
Defense
Readiness
through
Public-Private
Collaboration



Advancing U.S. Government Readiness

- State-of-the-art centrifuge manufacturing facility for rebuilding domestic uranium enrichment
- Essential for our nation’s defense – fueling future DoE National Nuclear Security Administration (NNSA) missions
- Public-private collaboration will advance enrichment technology and expertise
- Domestic Uranium Enrichment Centrifuge Experiment (DUECE)

Ensuring national security through domestic manufacturing



BWXT
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News: BWXT announces today that it has been awarded a contract valued at \$1.5 billion by the [U.S. Department of Energy \(DOE\)'s National Nuclear Security Administration \(NNSA\)](#) to support the national mission of establishing a domestic uranium enrichment capability for defense purposes in Oak Ridge, Tennessee.

Read the full release here: <https://ow.ly/cs2u50WXNhh>

2,057
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Delivering on innovation for 165 years