



TECHSOURCE[®]
A Science & Engineering Consultancy

Nuclear Weapons Systems & Technology

Nuclear Weapons are an essential feature in our country's national defense strategy and are key to worldwide deterrence. Maintaining the overall effectiveness of the nuclear stockpile is a top priority that requires in-depth knowledge and hands-on experience with the nuclear and nonnuclear technical components of weapons systems in order to overcome the myriad of complex technical and physical challenges associated with the aging stockpile.

Overcoming Maintenance and Modernization Challenges

Devising ways to upgrade and modernize the nuclear weapons enterprise requires specific experience with the design, fabrication, and operation of the existing nuclear weapons systems. Components whose current lifespan exceeds their intended design life may have deteriorated sufficiently to need repair or replacement. At the same time, the experts and skills once routinely available within the enterprise have declined over time, leaving organizations facing an impending knowledge gap that will inevitably impact their ability to maintain or improve the overall functionality and performance of the stockpile.

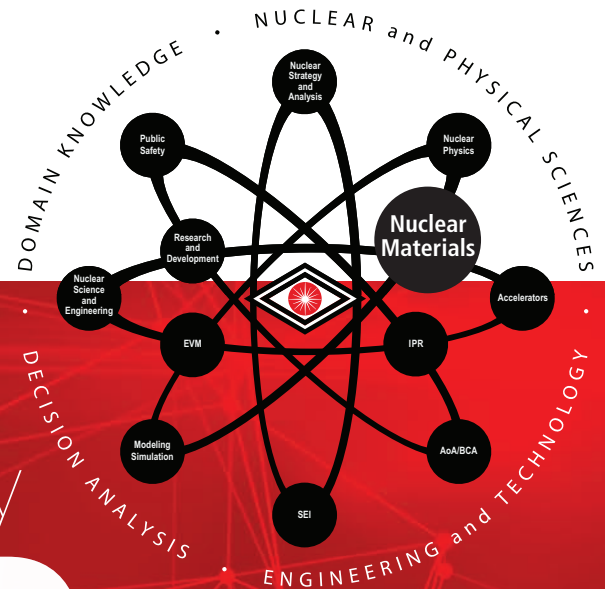
This is where TechSource's internationally recognized nuclear weapons systems experts excel. They possess the intricate set of critical skills and knowledge that comes only from intimate involvement in the design, development, qualification, and commissioning of existing stockpile systems. Decades of working with U.S. Department of Energy's National Nuclear Security Administration (NNSA) and the national laboratories enable our experts to accurately identify technical,

programmatic, and management gaps and to offer implementable solutions to bridge gaps that threaten performance and, ultimately, worldwide deterrence.

Achieving a Decisive Path Forward

Our extensive cohort of experts extends exceptional and unmatched enterprise-wide knowledge of nuclear weapons technology, systems, production, and deterrence to our clients. Our actively cleared experts offer specialized technical, programmatic, and management knowledge of the state of the stockpile weapons system spanning nuclear

TechSource experts understand the actions needed to bring clarity and resolution to the differences of opinions put forth by the scientists and program managers at the nuclear laboratories and within NNSA. With our highly specialized knowledge and experience, TechSource experts enhance the decisionmakers' understanding of the important issues, options, and potential impacts associated with selecting and implementing alternative solutions.



TechSource Provides Both High-level Decision Support and System Peer Review

Our knowledge spans the entirety of the Nuclear Weapons Enterprise, and our experts have experience at all levels of programmatic and technical operations offering unparalleled insight to the challenges associated with maintaining and improving the Nation's nuclear weapons systems.

TechSource services include:

- Technical Review Panel Members for Nuclear Weapons Systems, Components and Associated Equipment
- Team Members to Support Analysis of Alternatives for Facilities
- Architecture Review for Nuclear Weapons Systems — Particularly Consideration of Design Tradeoffs, and Safety and Use Control Themes and Implementation
- Assistance with Development and Implementation of Safe Assembly/Disassembly Processes
- Electromagnetic Radiation, Grounding and Shielding — Design and Component Performance Review
- Review of Nuclear Weapons Systems Development Plans, Qualification Plans, Material Requirements Schedules, and Integrated Plans
- Investigation of Specific Concerns
- Independent Peer Review — Providing Independent Review and Analysis to Federal Program Managers and Staff
- Mentoring of Client Program Leaders or Technical Staff
- Nuclear Weapons Enterprise Communication

performance, nuclear system safety, security, use control, and deterrence.

Our experts are adept at identifying promising technologies, potential risks, and benefits of proposed solutions. They also leverage their decades of experience when conducting indepth peer reviews of designs to succinctly identify where plans may be "robust or lean" to enable consideration of balanced risk across a program or multiple programs.

Our Bench

Because our nationally recognized experts spent most of their careers working within the Nuclear Weapons Enterprise, they have developed an extensive network spanning all levels and organizations comprising the Enterprise, thus enabling our experts to easily engage with current counterparts regarding important issues or potential problems as they emerge.

TechSource experts have exceptional backgrounds in nuclear weapons systems and have over 30 years of experience working in nuclear weapons defense programs with experience with and knowledge of programs and systems at multiple national laboratories, including the following:

- Los Alamos National Laboratory
- Lawrence Livermore National Laboratory
- Sandia National Laboratories
- Kansas City National Security Campus
- Y-12 National Security Complex
- Pantex Planet

Our experts have also contributed to programs and participated in reviews for NNSA Headquarters offices.

Contact

Corey Knapp

Nuclear Weapons Systems Lead
cknapp@techsource-inc.com

We're the Go-To Experts for Experts

Science & Engineering Expertise

TechSource is a leading high-technology science and engineering small business offering recognized expertise in nuclear and physical sciences, engineering and technology, domain knowledge, and decision analysis.

Unparalleled Expertise

TechSource's talented and innovative 500-plus cohort is composed of experts, most with 35 years or more of hands-on experience.

Complex Management Solutions

TechSource offers policy to test bench technical and management services in coordination with point-of-interest expertise to organizations responsible

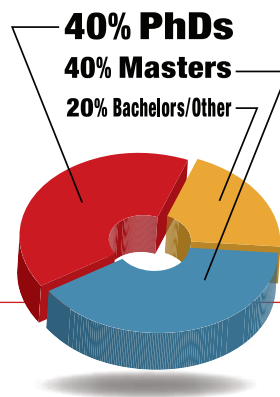
for developing, implementing, operating, and managing high-technology programs nationwide.

The World's Smartest Organizations Use TechSource

For over 20 years, TechSource has successfully supported a diverse and expanding client base, including U.S. federal agencies, the national laboratories, the Navajo Nation, universities, and commercial entities focused on solving some of the most complex issues facing the United States today.

Recognized Qualified Expert

TechSource is recognized as an independent, qualified expert whose advice and products uniquely and effectively bridge technical and programmatic requirements.



A Major TechSource Strength Is the Depth and Breadth of Our Experts

TechSource surety experts demystify safety, security, and use control by leveraging lessons learned and domain knowledge garnered from decades of hands-on experience. Our expertise in specific highly technical areas, like electromagnetic radiation shielding and grounding can help ensure that early designs are optimal and that test plans are complete.



TECHSOURCE[®]
A Science & Engineering Consultancy

1475 Central Avenue, Suite 250
Los Alamos, NM 87544
505.988.1726

20251 Century Blvd., Suite 225
Germantown, MD 20874
301.515.1344

TechSource-Inc.com