

Proliferation Resistance Optimization (PRO-X)

WHAT WE DO

Using unique capabilities at U.S. national laboratories, the Proliferation Resistance Optimization (PRO-X) program reduces nuclear risks while supporting research by helping international partners design new research reactors and facilities that reduce the potential production of dangerous nuclear material while optimizing reactor performance.

HOW WE DO IT

- Minimize the production of special nuclear material while maintaining or even improving reactor performance
- Leverage decades of reactor conversion and fuel cycle development experience
- Employ cutting-edge modeling techniques and codes
- Engage multi-disciplinary teams to identify, develop, and apply new approaches to solve unique performance challenges associated with research reactor design and use
- Develop guidelines and resources via engagement with the International Atomic Energy Agency (IAEA) and international stakeholders
- Integrate with IAEA and National Nuclear Security Administration (NNSA) safeguards and security experts to apply a comprehensive nonproliferation approach during the design phase

WHY TEAM WITH PRO-X?

- Take a hands-on approach to enhance your reactor design by maximizing its specific research capabilities to meet your needs
- Demonstrate nuclear security and nonproliferation leadership
- Access specialized analytical tools and teams composed of global leaders in nuclear material management and reactor analysis
- Receive active support throughout the design, regulatory review, licensing, and commissioning phases

The demand for new nuclear facilities is increasing in the energy, research, and medical sectors. Through research reactors, the PRO-X team plans to demonstrate that proliferation resistance can positively impact the entire industry.

Global Interest in Research Reactors

Approximately
11 REACTORS

For construction in 10
countries



QUESTIONS?

Contact: National Nuclear Security
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