



**Pacific Northwest**  
NATIONAL LABORATORY

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# Global Security Technology and Policy:

## Policy and Regulatory Analysis Team

Pacific Northwest National Laboratory's (PNNL's) Policy and Regulatory Analysis Team conducts informed and impactful policy and regulatory analysis that is well-grounded in a variety of science- and technology-based disciplines. The results inform decision makers and assist the United States and partner countries in deterring, detecting, and preventing the proliferation of weapons of mass destruction, as well as strengthening adherence to international nonproliferation treaties, agreements, and regimes.

Our experts conduct this work in support of the U.S. National Nuclear Security Administration, the U.S. Nuclear Regulatory Commission, and the U.S. Departments of Defense, Homeland Security, and State. We engage regularly with the International Atomic Energy Agency (IAEA), international partners, academia, nongovernmental organizations, and private industry to support nonproliferation and global security objectives. We provide world-class capabilities in the following six areas:

### Legislative and Regulatory Development

Many countries are working with U.S. partners to strengthen their legislative and regulatory frameworks for nuclear security, export controls, and IAEA safeguards. Our experts work with regulatory agencies in dozens of partner countries to develop and implement these frameworks.

### International Nuclear Cooperation and Engagement

Countries that are pursuing peaceful nuclear power need to establish state systems to account for and control their nuclear materials. PNNL is working with operators and regulators in these "nuclear newcomer" states to help them develop effective nuclear legal frameworks, use and maintain nuclear material accountancy instrumentation, develop sustainable nuclear workforces, and adhere to best practices in safeguards implementation.

We also work with countries to develop and sustain effective export control systems that are based on licensing, enterprise compliance, and regulatory enforcement. These efforts strengthen the effectiveness of mechanisms to prevent illicit transfers of WMD-related materials, equipment, and technology for weapons use. Collaborating with PNNL, countries are developing their own trained specialists, technical reachback and interagency communication systems, and capabilities for sustainable export control.

### Integrated Technical and Policy Analysis

Decision makers need evidence-based assessments and insights to address critical national and global challenges. PNNL helps define, shape, and refine U.S. policy on important issues involving national and international security, energy generation, and environmental protection. To do this, we draw on fundamental strengths in science and technology; information analytics and data visualization; economics and international relations; and regional and country-specific political, linguistic, and cultural expertise.

In one project for the U.S. Department of Homeland Security, PNNL analyzed critical elements of human trafficking and recommended technical and research requirements to improve deterrence and prosecution. In a project for the U.S. Department of Energy, we assessed the interdependence between water and nuclear power-generated energy.



PNNL's Policy and Regulatory Analysis Team provides global security strategies, policy and program analysis, customized best practices, program implementation, and training in

- » legislative and regulatory development
- » international nuclear cooperation and engagement
- » integrated technical and policy analysis
- » global nuclear fuel cycle policy analysis
- » industry engagement and self-regulation
- » arms control and nonproliferation policy.

# DISCOVERY

*in action*

## Global Nuclear Fuel Cycle Policy Analysis

PNNL provides technical analyses on the nuclear fuel cycle to inform national and international policy on enrichment and reprocessing. Our experts collaborate with the nuclear industry, the IAEA, and government partners to assess technical, political, legal, and economic challenges to international initiatives that offer nuclear energy states multilateral alternatives to the development of sensitive nuclear technologies.

## Industry Engagement and Self-Regulation

The private sector is an important stakeholder in controlling and securing strategic commodities through the supply chain to prevent illicit diversion to nuclear weapons programs by proliferators and terrorists. PNNL works with manufacturers and other supply-chain partners to identify ways that firms can self-regulate product movement while enabling legitimate commerce. One major element of our current research is to develop corporate sustainability indicators that would enable companies to compete on excellence in nonproliferation, as they do on many other issues.

## Arms Control and Nonproliferation Policy

The Policy and Regulatory Analysis Team supports human capital development and training for the next generation of arms control experts to develop innovative technical and policy solutions for arms control and verification. We also engage dual-use biological, chemical, nuclear, and missile scientists in peaceful research and training to support knowledge security and mitigate the risk of expertise proliferation. In addition, we work with U.S. and international partners to support long-term sustainability of U.S. investments in nonproliferation initiatives.

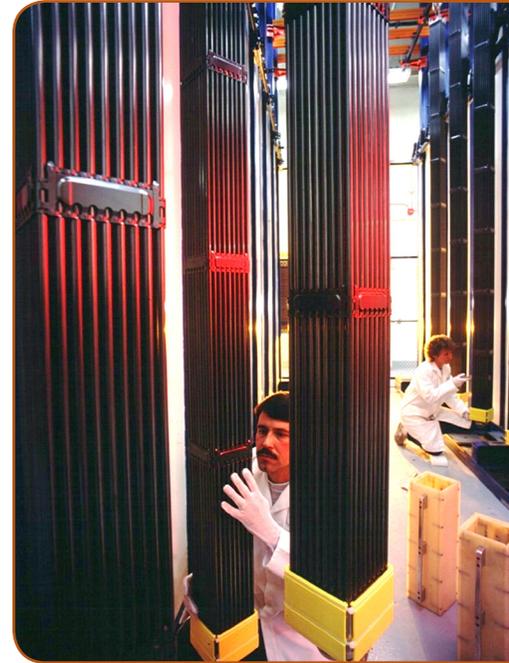


Image courtesy of NRC

## INTERNATIONAL PRESENCE

With its primary office in Seattle, Washington, the Policy and Regulatory Analysis Team has access to one of the nation's strongest information technology hubs and a major international shipping port. Other staff are strategically located in the Middle East, East Asia, and Washington, D.C. Our globetrotting team has frequent footprints on several continents. We are co-located with PNNL's Center for Global Security and Northwest Regional Technology Center for Homeland Security.

## CONTACTS

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