



Nuclear Security for Embarking and Expanding Countries

The International Atomic Energy Agency (IAEA) defines nuclear security as “the prevention of, detection of, and response to, criminal or intentional unauthorized acts involving or directed at nuclear material, other radioactive material, associated facilities or associated activities.” A robust nuclear security regime is needed to mitigate risks of terrorists or other non-state actors acquiring nuclear material. Preventing nuclear terrorism, material theft, and radiological sabotage cannot be considered in isolation from developmental goals, such as providing clean energy sources through the peaceful use of nuclear technology.

The National Nuclear Security Administration’s Office of International Nuclear Security, through decades of experience securing domestic and international nuclear material in use, storage, or transport, supports international efforts to prevent the theft and sabotage of nuclear material and facilities worldwide through bilateral and multilateral capacity building, technical exchanges, and innovation. Expertise includes physical protection, nuclear material accounting and control, response, transport security, insider threat mitigation, sabotage mitigation, cybersecurity, performance evaluation, regulatory frameworks, and inspections programs.

The Office of International Nuclear Security also provides nuclear security training and support for countries embarking on new nuclear power programs aligned with each phase of nuclear infrastructure development, though the lifetime of the nuclear facility. By considering nuclear security early in the planning stages of a new nuclear power program and facility or expanding one’s nuclear infrastructure, security can be better integrated into the national legal and regulatory framework.

Examples of U.S. Capabilities to support Nuclear Security

- Assistance with national level infrastructure to include nuclear security regulatory framework development and oversight
- Capacity building necessary to conduct or update the national threat assessment and design basis threat
- Physical protection system design and evaluation to ensure effective protection measure using a graded approach
- Security by design of new nuclear facilities from the initial planning through design, construction, operation, and decommissioning
- Assistance in development of policy and procedures for trustworthiness checks, insider threat mitigation, cyber security, and information protection
- Support the validation of facility nuclear security plans including evaluations and performance testing of the physical protection systems necessary for the licensing and commissioning of nuclear facilities.

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