



International Cooperation for Expansion of Nuclear Energy*

The American Nuclear Society supports expanded use of economical nuclear energy to meet growing electricity demand in the world and endorses programs to expand the peaceful use of nuclear energy while minimizing the risks of proliferation. The global expansion of nuclear energy must be based on use of a nuclear fuel cycle that enhances energy security and sustainability while promoting nonproliferation as is envisioned by the Global Nuclear Energy Partnership¹ (GNEP). This can be achieved technologically and politically by having the leading nuclear suppliers provide fuel supply services and assurances to other nations in compliance with their nonproliferation obligations that forego pursuit of sensitive fuel cycle activities.

Nuclear energy is safe, environmentally friendly, reliable, and affordable. As economies around the world continue to grow, the need for abundant, near-carbon-free, reliable, and low-cost energy resources will grow as well. The United States should work with partnering nations to develop proliferation-resistant recycling technologies to produce more energy, reduce waste, and minimize proliferation concerns. Additionally, these nations should develop a fuel services program to provide nuclear fuel to developing nations. The program would allow cooperating nations to enjoy all the benefits of abundant sources of clean, safe nuclear energy in a cost-effective manner in exchange for their commitment to give up enrichment and reprocessing activities thus alleviating proliferation concerns.

International safeguards will be needed as an integral part of the global expansion of nuclear energy and the development of future proliferation-resistant fuel cycle technologies. In order for the International Atomic Energy Agency (IAEA)—a worldwide organization designated to promote safe, secure, and peaceful nuclear technologies—to monitor and verify nuclear materials, advanced safeguards would need to be designed directly into the new facilities and processes as well as the planning and building of the nuclear infrastructure. Limiting the dissemination of sensitive technologies worldwide will strengthen the IAEA's capacity to uncover illicit activities and thereby reduce the risk of a country's duplicating the technology or misusing a civil facility for clandestine purposes.

In order to realize the benefits of nuclear expansion, it is necessary to invest in new plant construction, establish the Yucca Mountain geologic repository as soon as possible, accelerate research on advanced fuel cycle technologies, and revitalize the nuclear workforce.

*Related position statements include #55, "Nonproliferation"; #56, "Need for Near-Term Deployment"; #74, "Fast Reactor Technology: A Path to Long-Term Energy Sustainability"; #44, "Nuclear Power: The Leading Strategy for Reducing Carbon Emissions"; #45, "Nuclear Fuel Recycling"; and #29, "Maintaining a Viable Nuclear Industry Workforce."

¹ "Global Nuclear Energy Partnership to Expand Safe, Clean, Reliable, Affordable Nuclear Energy Worldwide," U.S. Department of Energy Press Release, U.S. Department of Energy Office of Public Affairs, Washington, D.C. (Feb. 6, 2006).

The American Nuclear Society, founded in 1954, is a not-for-profit scientific and educational society of over 10,000 scientists, engineers, and educators from universities, government and private laboratories, and industry.

Position Statements are the considered opinions and judgments of the Society in matters related to nuclear science and technology. They are intended to provide an objective basis for weighing the facts in reaching decisions on important national issues.