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Government and Industry Work Together to Prevent Nuclear Proliferation

- The commercial use of nuclear technology is vital for generating clean electricity, diagnosing diseases and treating cancer, sterilizing medical equipment, irradiating food products, and hundreds of other purposes. Preventing the proliferation of nuclear weapons, their components and related technology is a global mission that requires the transparent participation and cooperation of all nations to ensure its success.
 1. The international nonproliferation regime of material accountability, physical security and monitoring is the basis of international policy.
 2. The International Atomic Energy Agency (IAEA) uses a safeguards program to verify that a country is living up to its agreement not to use commercial nuclear programs for nuclear weapons purposes. To date, 145 countries have agreements with the IAEA, submitting nuclear materials, facilities and activities to the scrutiny of IAEA inspectors.
 3. As new nations plan to develop commercial nuclear energy, the international nuclear nonproliferation regime must be enhanced.

- The nuclear industry's principal concern is the misuse of uranium enrichment or recycling facilities. Although uranium used in nuclear power plants cannot be used to make a nuclear weapon (because of the low enrichment), reprocessed used fuel can yield sufficient plutonium as a fuel byproduct for nuclear weapons.
 1. Enrichment facilities that produce low-enriched fuel for commercial reactors pose no proliferation risk. International protocols must ensure these facilities are not used as "covers" to disguise production of highly enriched uranium.
 2. Reprocessing can be conducted in a way that does not result in a pure plutonium byproduct.
 3. The IAEA monitors and inspects fuel cycle facilities. Enhanced fuel assurance programs by those countries that already have enrichment technology could result in a stronger nonproliferation regime.

- Nations and companies that already have enrichment and reprocessing capabilities can provide an assured supply of fuel to other nations seeking to develop commercial nuclear technology. Thus, additional expensive and exploitable uranium enrichment and reprocessing facilities would not have to be built.

- U.S. nuclear plants already make a significant contribution to nonproliferation efforts.
 1. The Megatons to Megawatts program is a 20-year, \$8 billion government/industry partnership that is converting weapons-grade uranium from dismantled Russian nuclear warheads into reactor fuel for U.S. nuclear power plants.
 2. Since 1993, uranium from the equivalent of 11,000 warheads has been used to produce electricity.
 3. This fuel is used to produce 10 percent of all of the electricity in the United States.



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