



Position Statement #72

The Use of Highly Enriched Uranium for the Production of Medical Isotopes

Highly enriched uranium (HEU) currently plays a vital role in the production of medical isotopes. More than 17 million procedures annually, or 43,000 procedures per day, utilize medical isotopes derived from HEU to treat and diagnose illnesses such as heart disease and cancer in the United States. (See Position Statement No. 30, "U.S. Radioisotope Supply.")

The American Nuclear Society is committed to the peaceful utilization of nuclear technology in a way that is compatible with achieving nonproliferation goals, as embodied in the Treaty on the Nonproliferation of Nuclear Weapons (NPT), and to minimizing the availability of HEU in civilian commerce that could be targeted by terrorist organizations.

Efforts toward elimination of civilian utilization of HEU are progressing. Processes for production of medical isotopes utilizing low-enriched uranium (LEU) have been developed and demonstrated, but not on the scale of current production.

Therefore, the American Nuclear Society:

- Believes that the elimination of civilian utilization of HEU must be conducted at a pace that is guided by the overall impact and risks to society;
- Endorses further research and development of options to eliminate civilian utilization of HEU and prompt transition when these alternatives have been demonstrated to be viable;
- Believes that any short-term disruption in the supply of radioisotopes would present a much greater threat to human life than the perceived proliferation risks posed by the continued export of small quantities of HEU to close U.S. allies for the production of medical isotopes;

Cautions that the imposition of regulatory obstacles and restrictions on the utilization and/or export of HEU, until such time that alternative isotope production processes have been demonstrated to be viable, is not in the best interests of the public.



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