



HEALTH
PHYSICS
SOCIETY

USE OF IONIZING RADIATION FOR SECURITY SCREENING INDIVIDUALS

POSITION STATEMENT OF THE HEALTH PHYSICS SOCIETY*

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The Health Physics Society believes that intentionally exposing people to low levels of ionizing radiation for security screening is justified if certain criteria are met. The key considerations are the net benefit to society and keeping individual doses as low as reasonably achievable (ALARA) while achieving the desired objective. Appropriate organizations should develop criteria for determining when the social benefits of public screening outweigh the risks associated with ionizing radiation exposure. The criteria should represent the consensus of professional, consumer-advocacy, labor, and business organizations; academic institutions; government agencies; and the general public.

The Society's principal recommendations about the practice of security screening individuals by the use of ionizing radiation are:

1. The practice should be limited to those applications that result in an overall net benefit to society.
2. When the practice is used to screen members of the general public, screening systems and their use should conform to the requirements of ANSI/HPS N43.17.¹ This standard limits the reference effective dose² delivered to the subject to 0.25 microsieverts per screening. Additionally, a screening facility should not expose any individual to more than 250 microsieverts reference effective dose in a year.
3. Subjects should be informed of the radiation exposure.

¹American National Standards Institute (ANSI) Standard N43.17-2009, "Radiation Safety for Personnel Security Screening Systems Using X-Rays or Gamma Radiation," August 2009.

²Reference effective dose is a quantity based on measurable parameters of the scanning device; see ANSI N43.17-2009 for details.

*The Health Physics Society is a nonprofit scientific professional organization whose mission is excellence in the science and practice of radiation safety. Since its formation in 1956, the Society has represented the largest radiation safety society in the world, with a membership that includes scientists, safety professionals, physicists, engineers, attorneys, and other professionals from academia, industry, medical institutions, state and federal government, the national laboratories, the military, and other organizations. Society activities include encouraging research in radiation science, developing standards, and disseminating radiation safety information. Society members are involved in understanding, evaluating, and controlling the potential risks from radiation relative to the benefits. Official position statements are prepared and adopted in accordance with standard policies and procedures of the Society. The Society may be contacted at 1313 Dolley Madison Blvd., Suite 402, McLean, VA 22101; phone: 703-790-1745; fax: 703-790-2672; email: HPS@BurkInc.com.