HEALTH PHYSICS SOCIETY

# INTENTIONAL NONMEDICAL RADIATION EXPOSURE OF THE PUBLIC

## POSITION STATEMENT OF THE HEALTH PHYSICS SOCIETY*

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The increase in the number of human security screening units that use sources of ionizing radiation has raised certain bioethical questions. These screening units are found at airports, seaports, border crossings, bus and trucking terminals, national sporting events, prisons, and many other nonmedical settings. The human health implications of these exposures are adequately discussed in Health Physics Society Position Statement 017-1, "Use of Ionizing Radiation for Security Screening Individuals." This position statement specifically addresses the bioethics of these human exposures, including the appropriateness of informed consent for these exposures, as well as the circumstances in which it may be justifiable to perform covert screenings, i.e., without the knowledge of those being deliberately exposed.

It is the position of the Health Physics Society that:

> *No member of the public should be intentionally exposed to ionizing radiation without his or her knowledge.*

Regarding security screening involving human exposure, the Society believes that:

1. No human exposure to ionizing radiation should occur unless there is a net benefit to society that exceeds the societal cost (justification).
2. The total societal detriment from justified exposures should be maintained as low as reasonably achievable (ALARA) (optimization).
3. Except as otherwise indicated below, the individuals being exposed should be fully informed of the potential risks prior to exposure. This should take the form of signs, pamphlets, videos, or other appropriate means of notification upon approach to a screening area.

4. The individuals should be given at least one alternative to security screening that does not involve ionizing radiation exposure.
5. Individuals who are inadvertently exposed in cargo scanning should be provided written information about the risks from such exposure after the fact.
6. All radiation-emitting equipment used in security screening should be regulated and periodically evaluated and calibrated by the appropriate regulatory authority or its designated agent(s).
7. General-use systems should be designed to meet the limits in the National Council on Radiation Protection and Measurements Presidential Report[1].
8. Deliberate covert exposure to members of the public should be authorized only when the Secretary of Homeland Security has issued an elevated or imminent alert under the National Terrorism Advisory System (NTAS)[2].

[1] Presidential Report on Radiation Protection Advice: Screening of Humans for Security Purposes Using Ionizing Radiation Scanning Systems, A Report Prepared by the National Council on Radiation Protection and Measurements, January 2010.

[2] http://www.dhs.gov/files/programs/ntas.shtm#current

*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.