



HEALTH
PHYSICS
SOCIETY

OCCUPATIONAL RADIATION-SAFETY STANDARDS AND REGULATIONS ARE SOUND

POSITION STATEMENT OF THE HEALTH PHYSICS SOCIETY*

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The Health Physics Society believes occupational radiation-safety standards and regulations have been sound, and protective of radiation workers, since the mid-1950s. This position is based on consideration of the following:

1. Since the 1920s there has been a public and independent system consisting of scientific committees, scientific organizations, and regulatory authorities/agencies for recommending and establishing basic radiation-safety standards at the international and national level.
2. Dose limits represent an acceptable level of potential risk and do not represent a level that will necessarily be unsafe if they are exceeded.
3. The reduction of individual dose limits is not evidence the earlier dose limits were inadequate.
4. Average doses received by radiation workers have been, and continue to be, below the individual dose limits existent at the time.
5. The most reliable studies of the effects of radiation exposure at the low levels received by occupational workers have not been able to detect adverse health effects associated with lifetime exposures smaller than approximately 10 rem (0.1 Sv)¹.

The Society believes the implementation of radiation-safety standards and regulations has been responsible and adequate in providing for a safe industry, taking into account

changes in occupational work practices over the last 50 years. This position is based on consideration of the following:

1. From the beginning of the widespread use of radiation and radioactivity in the United States, specific responsibilities have existed for those individuals and agencies charged with regulating the safe use of these materials.
2. Since the mid-1950s radiation-safety standards have included provisions for incorporating the philosophy of As Low As Reasonably Achievable (ALARA) in radiation-safety work practices.
3. The application of ALARA is founded in the professional judgment of radiation-safety managers and personnel and is not, therefore, able to be used as a measure of whether or not a particular radiation-safety program is adequate in comparison with other programs.
4. The citation of a deficiency, regulatory violation, or area for improvement does not necessarily provide an indication of an unsafe condition or an unsafe facility.
5. Implicit within regulations is the expectation that employers recognize unsafe conditions and cease operations that have been determined to be unsafe.
6. Final designation of an unsafe working environment is most appropriately done by those specifically entrusted with that responsibility, i.e., the regulatory authority.

The Society believes employers should be held accountable to conduct radiation-safety programs that comply with regulations and requirements. While the rigor of an ALARA program, the degree of compliance with regulatory requirements, and worker perceptions of the adequacy of the safety of the program may be measures of the employer's commitment to radiation safety, they are not necessarily measures of worker safety.

FOOTNOTE

¹ The sievert (Sv) is the international (SI) unit of effective dose equivalent. The HPS endorses the use of SI units; however, because U.S. regulatory agencies continue to use the traditional units in regulations, this position statement uses the traditional unit for effective dose equivalent, i.e., the rem, throughout the document. 100 rem = 1 Sv.

*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 grown to approximately 6,000 scientists, physicians, engineers, lawyers, and other professionals representing academia, industry, government, national laboratories, the Department of Defense, 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.