

# **INTERNATIONAL BASIC SAFETY STANDARDS**

# Why are they important?

Radiation sources are widely used in medicine, industry, agriculture and research and the uses of radiation continue to increase worldwide.

People are exposed to radiation from the generation of nuclear power, from naturally occurring radiation in the environment, and from exposure to radiation following a nuclear or radiological emergency. Any exposure to radiation bears an associated risk to people and the environment, depending on the level of exposure.

## What do I need to know?

The protection of people from the potentially harmful effects of radiation needs to be achieved without unnecessarily restricting the beneficial uses enjoyed by society.

The system of protection and safety outlined in the BSS aims to **ASSESS, MANAGE, CONTROL** exposure to radiation.

Radiation risks, including risks to health and to the environment, should be reduced to the extent reasonably achievable.

The BSS applies to all facilities and all activities that give rise to radiation risks, it covers three types of exposure situations: planned, emergency and existing exposure situations, and it provides internationally agreed standards for controlling occupational, medical and public exposure.



The International Basic Safety Standards (BSS) are the international benchmark for radiation safety. The BSS are used in many countries as the basis for national legislation to protect workers, patients, the public and the environment from the risks of ionizing radiation. IAEA Safety Standards for protecting people and the environment

Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards

General Safety Requirements Part 3 No. GSR Part 3





The BSS are based on the most recent scientific evidence on the effects of ionizing radiation and take into account practices and experiences from around the world in the use of ionizing radiation and nuclear techniques. Eight international organizations sponsor the BSS.

### What actions are required?



#### **Exposure situations**

*Planned exposure situations* arise from the deliberate introduction and operation of sources or from an activity that results in an exposure to radiation.

*Emergency exposure situations* arise as a result of an accident, a malicious act, or any other unexpected event. Such situations require prompt action in order to avoid or reduce any negative consequences.

*Existing exposure situations* is where the radiation exposure that is already taking place when we consider if any action needs to be taken.

## **Categories of exposure**

Occupational exposure is exposure of workers as part of their work.

*Medical exposure* is exposure of patients as a result of medical or dental diagnosis or treatment, of carers and comforters, and of volunteers as part of a programme of biomedical research

*Public exposure* is exposure of members of the public from radiation sources, excluding any occupational or medical exposure.

#### Resources

Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards, No. GSR Part 3 <u>http://www-pub.iaea.org/MTCD/publications/PDF/Pub1578\_web-57265295.pdf</u>