



60 Years
Atoms for Peace and Development

Factsheet for Decision Makers

Radiation Protection of the Public

PROTECTION OF THE PUBLIC

Why is it important?

International radiation protection standards include criteria to protect the public from the harmful effects of radiation without unnecessarily restricting the many uses of radiation that benefit society.

The public can be exposed to radiation from uses of radiation sources that are controlled (planned exposure situations), from natural and artificial sources already present in the environment (existing exposure situations) or as a result of a nuclear or radiological emergency (emergency exposure situations).¹

What do I need to know?

Planned exposure situations. This is when people are exposed to radiation as the result of activities that are planned in advance. The public can be exposed to radiation due to the operation of nuclear power plants, the use of radiation sources in industry and medicine, and from certain mining activities. Dose limits for such exposures are normally set down in national legislation and are enforced by the regulatory body.

Existing exposure situations. This is when members of the public are routinely exposed to both natural and man-made sources of radiation in their everyday life. These sources include radon in buildings, radionuclides in food and drinking water, fallout from the testing of nuclear weapons in the past, and areas contaminated with residual radioactive material. Any actions to reduce such exposures must be justified.

Public exposure does not include radiation exposure of patients as part of medical diagnosis or treatment, nor of workers exposed as part of their work.

¹ Nuclear and radiological emergencies are discussed in a separate factsheet.



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**

Jointly sponsored by
EC, FAO, IAEA, ILO, OECD/NEA, PAHO, UNEP, WHO

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?



The government must ensure that responsibilities for developing and implementing protection strategies in existing exposure situations are assigned, and that appropriate reference levels are established.

The government or regulatory body is responsible for establishing and enforcing compliance with public dose limits.

The regulatory body is responsible for approving the dose constraints that apply to members of the public from planned exposure situations.

Operators and licensees are responsible for complying with regulations covering public exposure, including assessing doses to members of the public from planned exposure situations.

Dose constraints and reference levels:

Dose constraints and reference levels are used for optimization of protection and safety. The intended outcome is that all exposures are controlled to levels that are as low as reasonably achievable, taking into account economic, societal and environmental factors. Dose constraints are used to control public exposure in planned exposure situations. Reference levels are used to control public exposure in existing exposure situations and in emergency exposure situations.



Resources

Radiation Protection and Safety of Radiation Sources: International Basic Safety Standards, No. GSR Part 3
http://www-pub.iaea.org/MTCD/publications/PDF/Pub1578_web-57265295.pdf