Physikalisch-Technische Bundesanstalt

Introduction of the new quantities in radiation protection in Germany

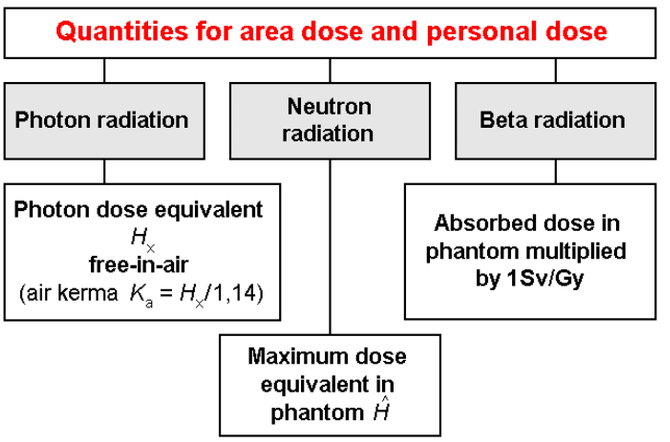
Quantity for the field of radiation protection

dose equivalent $H = Q \cdot D$, unit: sievert (Sv)

Quantities until 2000

Definition of the quantities depending on the type of radiation, free-in-air or in different phantoms

- DIN 6814 Terms and definitions in radiological technique; Part 3: Dose quantities and dose units
- Verification Ordinance dated August 12, 1988, Appendix 23



Quantities from 2000 on

ICRU concept

(first presented in ICRU Report 39 (1985)):

- All quantities defined in phantoms
- Uniform quantities for all types of radiation
- Different quantities for area and personal dose

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EU Directive 96/29/Euratom dated May 13, 1996

defining the fundamental safety standards to protect the health of labour force and of the population against hazards due to ionising radiation

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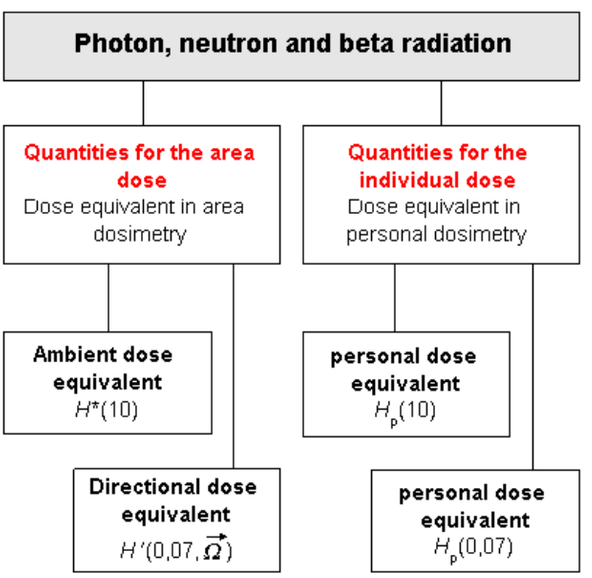
National law

Amendment of the Radiation Protection and X-ray Ordinances

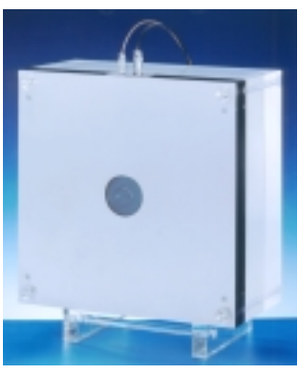


Legal tasks

- Realisation of the new radiation protection quantities for photon, neutron and beta radiation
- Type testing area and personal dosemeters for photon radiation
- Intercomparison measurements for personal dosemeters for photon, neutron and beta radiation

New developments and technology transfer

Secondary standard for $H_p(10)$



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