IRPA Regional Congress on Radiation Protection in Central Europe

Bratislava, Slovakia, September 22-26, 2003

INIS (International Nuclear Information System)

subject coverage of the Congress topics

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Environmental Aspects of Siting of Nuclear Installations *(includes fission reactors, fission fuel cycle facilities and all other nuclear installations and facilities)*

- selection criteria, suitability studies and environmental impact theoretical studies under normal operating conditions

Environmental Aspects of Radioactive Releases from Nuclear Installations *(includes fission reactors, fission fuel cycle facilities and all other nuclear installations and facilities)*

- environmental implications for ecosystems resulting from generation, on-site treatment and release of radioactive substances from nuclear installations
- monitoring and transport of radioisotopes in soils
- monitoring and transport of radioisotopes in surface waters
- monitoring and transport of radioisotopes in earth's atmosphere
- personnel dosimetry and medical surveillance

Note: *covers are also environmental aspects of chemical and thermal releases from nuclear installations*

Environmental Aspects of Design and Hypothetical Accidents at Nuclear Installations *(includes fission reactors, fission fuel cycle facilities and all other nuclear installations and facilities)*

- environmental consequences predicted from the analysis of design basis or hypothetical accidents and performance of safety systems for nuclear installations including those involving handling and transport of radioactive materials
- environmental consequences of real accidents at nuclear installations

Radiation Protection Procedures

- procedures designed wholly or primarily to provide radiation protection for man
- prevention of contamination or procedures for decontamination, including chemical decontamination of materials, structures and equipment
- personnel monitoring and radiation monitoring (e.g., in nuclear facilities, industry, radiotherapy, x-ray diagnostics, nuclear medicine) for both patients and medical personnel

- medical surveillance of personnel exposed to ionising radiations in conformance with national or international radiation protection regulations or recommendations
- population dose estimates, collective dose and dose commitments as a result of nuclear accidents or from contaminated food
- calculation and measurement of absorbed doses in man, animals, plants and other biological systems at all levels, as well as in tissue-equivalent materials and phantoms
- radiation protection standards
- emergency planning
- radiation measuring instruments

Biological Effects of Ionizing Radiation

- **Effects of External Irradiation on Biochemicals, Cell and Tissue Cultures, Microorganisms, Plants, Animals and Man**
  - effects of ionizing radiations (including immunological consequences, acute, and late effects) on man
  - relative effects of irradiation procedures, doses, dose rates, Relative Biological Effectiveness (RBE), Linear Energy Transfer (LET) and quality factors
  - modification of effects of such radiations due to various response modifying factors, such as radioprotective or effect-enhancing substances or irradiation conditions; side effects (e.g. toxicity) of such substances
  - side and late effects of such radiations in medical diagnosis and therapy
  - epidemiological studies of possible radiation-caused illness
- **Effects of Internal Irradiation, Radioisotope Kinetics and Toxicity in Microorganisms, Plants, Animals and Man**
  - acute and late effects of absorbed or incorporated radioactive materials
  - internal source evaluation
  - side and late effects, including toxicity, of the use of radioisotopes in bound or unbound form in diagnosis and therapy
  - radioisotope kinetics, localization, uptake and elimination of radioisotopes at all levels (subcellular, tissue, organ and whole organism)
  - contamination and decontamination (both internal and external)
  - use of chelating agents or complex forming agents, modifying factors and radioprotective substances, e.g. EDTA, DTPA, stable iodine
  - epidemiological studies of possible radioisotope-caused illness

Legal Aspects

- **Radioactive Materials and Radiation Sources**
  - legal aspects, including licensing and inspection of prospecting, production, handling, operation, trade, transfer and supply of radioactive materials and radiation sources

- **Nuclear Installations**
  - legal aspects, including licensing and inspection, of siting, construction, operation and decommissioning of nuclear installations
  - legal aspects of trade, transfer and supply of nuclear installations and equipment
  - legal aspects of radioactive effluents from nuclear installations
  - legal aspect of emergency planning
- **Radiation Health**
  - legal aspects of protecting personnel and members of the public
  - legal aspects of protecting the environment against contamination form the operation of nuclear facilities
  - legal aspects of direct or indirect applications of radioisotopes and radiations to man (e.g. medical and industrial applications, food irradiation, radiation from consumer products)
  - legal aspects of emergency planning
- **Management, Transport and Storage of Radioactive Materials and Waste**
  - legal aspects of national or international transport of radioactive materials an wastes by any means, and accident prevention
  - legal aspects of waste treatment
  - legal aspects, including licensing and inspection, of storage of radioactive materials, and of temporary or ultimate storage of radioactive wastes

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