

Emerging Challenges in the Management of Public and Emergency Exposure

Views from *EC, FAO, IAEA, OECD/NEA, WHO*

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Introduction

Evolution of the RP system since ICRP (1928)

- Continuum of incremental enhancement
- Incorporating
 - Scientific developments
 - Social values
 - Experience

What are the key challenges?

Where are we today in terms of managing public and emergency exposures?

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Historical legacy

**“[Radiological protection is] ... not only a matter for science. It is a problem of philosophy, and morality, and the utmost wisdom.”
(Lauriston S. Taylor)**

“The establishment of maximum permissible radiation levels is a non scientific task, which must be based primarily on scientific knowledge and judgement.” (Rolf M.Sievert)

Thus, the nature of radiological protection is the search for the most appropriate level of protection under the prevailing circumstances, implying

- **Assessment of risks;**
- **Assessment of protection options; and**
- **Judgment in decision making.**



Key Challenges

- Balance between harmonized approaches and case specific solutions
- Applying the precautionary principle requires increased transparency and stakeholder engagement
- Citizen vigilance, as a check and balance to governmental and regulatory decisions, is increasing

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Public Exposure Challenges

Structures and procedures for optimum engagement with stakeholders

- Transparency of process
- Role of actors
- Trust in institutions

Integration of emerging science

- Bystander effects; Cardiovascular diseases, ...
- New epidemiological evidence (Radon)

Management of Radon exposure

- Focus on high-end or average of concentrations?
- New Reference Levels?
- Programmes for synergies of Radon and smoking?
- Global approach to indoor air quality?
- Focus on specific groups at risk?

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Emergency Exposure Challenges

- Implementing new ICRP 103 approach
- Broadening range of emergency situations (e.g. RDDs)
- Stakeholder involvement in planning and late phase consequence management
- Objectives and processes for recovery
- Many lessons still to be implemented:
 - Integrated approach to consequence management
 - The impact of economics on decision-making

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How to address these challenges?

International organisations, building on their specific strengths, should continue to work together on:

- BSS development
- Radon exposure management
- Stakeholder engagement studies
- International emergency exercises
- International standards
- International Action Plans

Although national structures and approaches differ, the identification of commonalities and good practice can efficiently facilitate the development of harmonised national and international solutions.

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