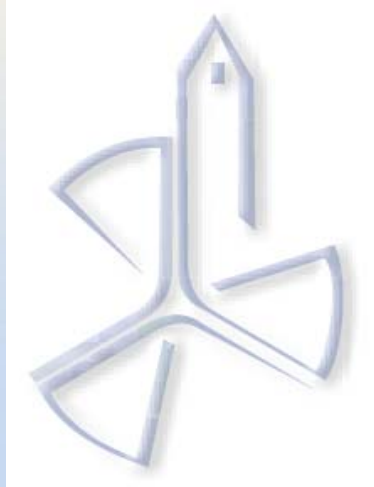


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IRPA 12

Radiation Protection Paradigm

II.1 Developing the Radiation Protection Framework

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IAEA**



II.1 Developing the Radiation Protection Framework

II.1.1 Evolving International Safety Regime - 14 contributions

II.1.2 National Infrastructures - 42 contributions

II.1.3 Education, Training and Staffing - 43 contributions

II.1.4 Safety & Security of Radiation Sources - 38 contributions

II.1.1 Evolving International Safety Regime

Key issues, challenges and conclusions

- ✓ NEA held seven workshops, 4 detailed assessments, 13 technical reports, mobilisation of > 100 experts to provide stakeholder involvement into the process of the new ICRP recommendations
- ✓ NEA outcome & feedback had impact on, optimization, exposure situations, DCs & RLs, environmental protection, stakeholder involvement...
- ✓ It was recognized that while the process was lengthy, difficult, costly and tedious, the new ICRP recommendations are **better understood** and represent a **broader consensus** than had this open process not taken place

II.1.1 Evolving International Safety Regime (2)

Key issues, challenges and conclusions (Cont'd)

- ✓ WNA looked at the next stage of the process: turning the recommendations of ICRP into regulatory guidance through the IAEA standards
- ✓ Radiation protection must be seen in a holistic approach taking into account Energy, Environment and Health Challenges
- ✓ It is important to achieve a global and integrated system of radiation protection fully consistent with IAEA Safety Fundamentals published in 2006

II.1.1 Evolving International Safety Regime (3)

Key issues, challenges and conclusions (Cont'd)

- ✓ It was recognized that efforts be made to have the BSS in line with the long-term structure of the international standards (Top down approach)
- ✓ General Safety Requirements integrating all thematic areas in a coherent and harmonized set of publications, complemented by a series of facilities and activities specific Safety Requirements
- ✓ What is most important is to have clear, consistent, integrated and manageable set of international safety standards

II.1.2 National Infrastructures (2)

Key issues, challenges and conclusions (Cont'd)

- ✓ Adequate national safety infrastructure: State responsibility
- ✓ Evolutionary process requiring continuous improvement (policy, regulatory, training...etc):
 - ✓ Lifetime commitment;
 - ✓ International cooperation (establishing int. standards and recommendations and promoting their use, facilitating relevant internal instruments, strengthening capacity building, knowledge networks) is crucial

II.1.2 National Infrastructures (3)

Key issues, challenges and conclusions (Cont'd)

- ✓ A culture of safety first and foremost
- ✓ Regulatory effectiveness and independence
- ✓ Limited human and financial resources
- ✓ Ageing of facilities and staff
- ✓ Complacency and non-vigilance
- ✓ Focus our efforts on strengthening weak links in order to prevent nuclear and radiological accidents

II.1.3 Education, Training and Staffing

Key issues, challenges and conclusions

- ✓ **Effective radiation protection will only be ensured by an adequate number of competent persons at the appropriate levels**
- ✓ **Important to develop and maintain national capability to meet radiation protection needs:**
 - **addressing initial training at all levels for all personnel; and**
 - **Maintaining competence**

II.1.3 Education, Training and Staffing (2)

Key issues, challenges and conclusions (Cont'd)

- ✓ **For building competence, mixing national, regional and international resources will:**
 - **bring greater effectiveness**
 - **accelerate implementation of international standards & recommendations**
 - **promote better sharing of knowledge & experience**

II.1.3 Education, Training and Staffing(3)

Key issues, challenges and conclusions (Cont'd)

- ✓ **Sustainability must be the objective**
- ✓ **Knowledge management must be addressed to ensure retention of expertise**
- ✓ **For developing radiation protection infrastructure the initial focus should be on E & T of the Regulatory Body**
- ✓ **The IAEA provides a ready resource for E & T activities, including training material, courses, workshops, OJT...etc**

II.1.4 Safety and Security of Radiation Sources

Key issues, challenges and conclusions

- ✓ **There continues to be an increasing recognition of the importance of, and interest in, safety and security of radioactive source**
- ✓ **Of the papers submitted, there was an almost equal representation between safety and security issues**
- ✓ **Safety and security concerns are also a global responsibility. Accidents or the potential malicious misuse of radioactive material can affect any country and all countries must work together to ensure that sources are managed safely and securely**

II.1.4 Safety and Security of Radiation Sources (2)

Key issues, challenges and conclusions (Cont'd)

- ✓ While acknowledging important achievements, there remains much work to do in many countries. The international radiation protection community has a leading role to play in meeting this challenge
- ✓ Orphaned radioactive sources continue to represent a large safety and security risk due to their uncontrolled nature. It is important that efforts to detect and remediate these sources, as well as prepare for any related emergency situations continue to be developed
- ✓ More synergies and integration between safety and security. Safety Fundamentals SF-1 explicitly mention that **safety measures and security measures must be designed and implemented in an integrated manner**