Safety and Reliability – challenges for change and progress

IRPA‘s engagement in the system of protection

Renate Czarwinski, IRPA President
IRPA’s Key Challenge

IRPA Vision

IRPA is recognized by its members, stakeholders and the public as the *international voice of the radiation protection profession* in the enhancement of radiation protection culture and practice worldwide.

Making this Vision a reality
IRPA Values and Strength

Recognized non-governmental organization

- 50 Associate Societies
- Representing 63 countries
- Almost 18,000 individual members

Enormous resources of **practical knowledge and experience** in radiation protection: scientists, operators, regulators, medical practitioners, government advisers

Accompanied by multicultural background
Social, Political and Ethical Issues

Practicability of RP system

*scientific stringency*

*in accordance with accepted ethical values*

*political and social values*

"Radiation protection is not only a matter for science. It is a problem of philosophy, and morality, and the utmost wisdom."

The Philosophy Underlying Radiation Protection

Am. J. Roent. Vol. 77, N° 5, 914-919, 1957

From address on 7 Nov. 1956

Lauriston S. Taylor (1902 – 2004)
Radiation Protection in a changing society

Increasing globalization

- Importance of economic cross linking
- Global transmission of new and complex technologies
- Innovations e.g. in transport
- Revolution in communication
- Emerging diseases
- Factors related to terrorism

✓ Society is changing and this also poses new challenges for the implementation of an effective protection system.

✓ Clear understanding of radiation risks is an increasingly emerging concern – people are more concerned on the same level of risk!

✓ Towards a knowledgable society
Nuclear Technologies

Risk Assessment

Public risk awareness and understanding

Acceptance

beneficial
safe
effective
reliable

technical
(radiological)
economic
environmental
political
social
ethical

Safe, affordable, socially accepted future
Facts are full of nuances and shadings and not only black and white.

Where is the loophole?
Selected views from professionals

Workshop Baltimore

- The issue of justification was identified as a crucial point for which ethical considerations have to play a role.

- Ethics in relation to the RP system is also about considering and recognizing the boundaries of the system when it comes to providing a rationale for societal justification of a radiation risk.
Problems with Justification

- Major knowledge issues
- Evidence Issues
- Accountability Issues
- Probably Legal Issues

- How it would be viewed by society.

(The fact that everybody is doing it is not a good defence if the position is not defensible)
---- and how to justify will differ -----

Picture borrowed from Jim Malone
Selected views from professionals

Workshop Madrid

- Workers dose
  - The right to know rather than informed consent
  - Efforts proportionate to the level of dose

- RP culture
  - Absolute alignment with ethical principles of dignity, transparency, autonomy

- Stakeholder involvement
  - Effective engagement and dialogue
  - Particularly difficult: What is the risk?

- Low dose and prudence
  - Controlling doses at extremely low levels (regulatory pressure?)
Risk communication and public understanding

How could the system for protection be improved to meet the challenges and ensure the system is fit for purpose?

- How should we present the uncertainty in risk estimation at low doses?
- Should we give more prominent context to natural background exposure?
- Whilst accepting the principle of dose limitation, should we have more flexibility in how this is emphasized and presented?
- Should we make ALARA even more central to our control hierarchy? If so, how do we ensure proportionality of efforts?
- Should we make efforts to present radiation risk in the wider context of public health?

Reflection by Associate Societies, professionals and individuals
IRPA invites you to work with us!

IRPA provides a platform for wider discussion and enhancing awareness through our International and Regional Congresses:

14th IRPA International Congress
Cape Town, 9 – 13 May 2016
IRPA’s 50th Anniversary!