Challenges to the System of Radiological Protection

The Lessons of Fukushima from an IRPA Perspective

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What is IRPA?

The International Radiation Protection Association

IRPA is an international association of individual RP practitioners joining through national or regional societies.

If you are a member of an Associate Society, you are a member of IRPA.
IRPA Update

- 49 Associate Societies
- Representing 62 countries
- Almost 18,000 individual members

**Value and strength of IRPA:**

Enormous resources of *practical knowledge and experience* in radiation protection and related specialist fields
The Pillars of Radiation Protection
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.
The Principal Lessons from Fukushima (1)

Issues of a *technical* nature:

- Severe accident management
- Environmental modelling and integrated assessments
- Emergency Planning and Preparedness
- Dose Assessment and Dose Quantities
- Waste Management and Contamination
- Import controls
- Etc

In the main, resolution of such issues should be led by government, regulators, industry and expert advisers, but with input from the wider RP community and stakeholders.
The Principal Lessons from Fukushima (2)

Other more fundamental issues:

- **Structure of the System of Protection**
  - Is it too complex?
  - Is it adequately underpinned – social values & ethics etc?

- **Ease of communication of our System**
  - Can we explain it adequately to non-specialists? Does it seem believable?

- **Public understanding generally**
  - Are we putting enough effort into engaging with our stakeholders (including ‘the public’)?

All these issues interact!
IRPA’s Key Role

These 3 fundamental issues must be IRPA’s focus:

- A simpler system of protection, underpinned with clear societal values, with more emphasis on public understanding

  • We must bring the experiences of 18,000 practitioners to bear on this challenge.

Front line practitioners **must** be involved:

  • We have first hand experience of the challenges
  • We will have to implement whatever changes are made
  • We will inevitably be in the communication front line
Illustration of the Challenge
- Public Exposure

• **Limit** - 1 mSv/y
  ‘Limit’ is often understood to delineate ‘safe’ from ‘danger’

• However, everyone gets at least ~ 3 mSv/y from natural background – without being thought of as ‘dangerous’:
  - many get up to 10 mSv/y and more

• But ‘activities’ are only allowed 0.3 mSv/y
• And some ‘activities’ only get 0.01 mSv/y!

• But when the going gets tough, then 20 mSv/y is ‘OK’!
Public Exposure

How do we explain this easily and credibly??!!
Don’t know the answer, but at least we now recognise that we have to look for it!

IRPA stands willing to help bring the experiences and wisdom of 18,000 RP practitioners to bear on this challenge.

The ‘normal’ international RP community comprises senior governmental officials, regulators and specialized RP advisers:

- involving the practitioners can add a different dimension.
IRPA Vision

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The Principal IRPA Challenge: Making this Vision a reality
The international voice of the RP profession

• This needs improved and intensive links between IRPA, Associate Societies and individual members

• How do we identify the issues?
  • Scan the international horizon
  • Feedback from practitioners

• Co-ordinate through a new IRPA Committee
  • The RP Strategy and Practice Committee
  • Specific issues dealt with through specific Task Groups

But we acknowledge the need to be quick and responsive, and work as a team
An Example: Eye Lens Dose Limit

The BSS process which introduced a new eye lens dose limit was perhaps rushed?
- Were the implications for application properly considered?
- Many practitioners are concerned at the potential impact.

Hence IRPA established a Task Group

- A report has been produced on the principal issues faced by practitioners regarding the implementation of the new limit.
- IRPA is engaging in the international discussions on the implementation issues.
Cooperation between IRPA and ICRP: Essential engagement and involvement of practitioners

Key Objectives:

- Consolidation and (where possible) simplification of the System of Protection
- Scientific stringency aligned with ethical, social and political values, with cultural alignment
- A better basis for communication of radiation risk, leading to improved public understanding

- Workshops with Associate Societies (Asia, Europe, N America ...)
- Sessions in Regional and International IRPA Congresses
Helping members of the public understand radiation and risk is becoming central to our activities as RP professionals

- but it is a very challenging activity.

- It compliments IRPA’s Stakeholder Engagement guidance

IRPA and its Associate Societies are independent

– of governments, industries, regulators

and have a high potential to be trusted as a source of information
What do Associate Societies do at the moment? Where are the good ideas?

We should share good practice.

Examples:

- Position Papers
- Press releases
- and media liaison
- Web site information
- Etc

- ‘Talking Heads’
- Schools Events
- Talks service
- Public query service
Broader Picture – Radiation Emergencies and the medical community

Fukushima experience:

Lack of basic knowledge of radiation effects within the general medical profession – doctors, nurses, first responders etc

*RP Experts and Medical Physicists must help ensure that the wider medical profession is adequately equipped to understand radiation*

IRPA and IOMP (International Organisation of Medical Physics) are working together to address this issue.
Radiation Protection Culture

A 3-4 year IRPA work programme is coming towards fruition
- A new Guidance Document will shortly be available

OBJECTIVES:
- to foster a belief in the success of cultural approaches,
- to provide guidance to help equip radiation protection professionals to promote a successful RP culture in their organisation and workplace

WHY? Because embedding RP at a cultural level within an organization is by far the most effective way of delivering the performance to which we all aspire.
To increase the efforts of IRPA to *support young practitioners and scientists* in their work in radiation protection, in their *education and training*, and in their efforts to become members of the radiation protection community.
IRPA and our Associate Societies

We must be an effective global family of RP Practitioners:

• Promoting excellence in national and regional associate societies and radiation protection professionals

• Providing support, guidance and benchmarks of good practice

• Enhancing professional competence

• Providing exchange of information and facilitating networking

• Providing the interface and feedback between practitioners and the System of Protection
IRPA invites you to work with us to address these post-Fukushima challenges.

We can provide a platform for wider discussion and enhancing awareness through our International and Regional Congresses:

14th IRPA International Congress
Cape Town, May 2016

IRPA’s 50th Anniversary!
And at the upcoming Regional Congresses
The challenges are significant
But we have 18,000 helpers!
Lets make the best use of them