

# Radiological Protection

## Committee on Radiation Protection and Public Health (CRPPH)

The CRPPH is contributing to the definition of new directions and approaches for the international system of radiological protection in order to achieve a clearer and more streamlined framework. The ultimate objective is to achieve a system that will better address regulator and practitioner needs, and will more appropriately position scientific radiological protection considerations within the broader context of social judgement and risk governance.

## Evolution of the International System of Radiological Protection

Since the International Commission on Radiological Protection (ICRP) began to develop new general recommendations in 1999, the CRPPH has led the NEA standing technical committees in providing input and suggestions to the process. When the ICRP issued the third major draft of its general recommendations in 2006, the NEA organised three international workshops in Tokyo, Washington DC and Prague to discuss the draft. A line-by-line assessment of the draft was performed, resulting in 50 pages of detailed comments on the text. Although the ICRP did not revise its draft text during these workshops, the ICRP Chair's presentations of its principles during the workshops evolved significantly along the lines suggested by workshop discussions.

It is expected that the ICRP will issue one more draft of its general recommendations before their approval by the Commission in 2007. The CRPPH will again perform a detailed assessment of the last draft and provide well-supported suggestions for changes in the hope that the final ICRP recommendations will best address their policy, regulatory and applicational needs.

## Stakeholders and radiological protection

Twenty years after the major accident at the Chernobyl nuclear power plant, the radioactive contamination continues to have an important impact on lives in the vicinity, and to a lesser extent in areas such as Western Europe and beyond. The CRPPH produced a report entitled *Stakeholders and Radiological Protection: Lessons from Chernobyl 20 Years After* which focuses on the role of radiological protection and how this discipline has been deployed to help people in the affected areas to manage their lives. Although the topic of this report concerns radioactivity and nuclear energy, it can also be very useful

## Highlights

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- In order to enable a review of the 2006 draft of the recommendations of the International Commission on Radiological Protection (ICRP) by stakeholders, the CRPPH organised three workshops in Tokyo, Washington DC and Prague. Detailed comments on the draft were provided through an expert group.
- The CRPPH produced a report on *Stakeholders and Radiological Protection: Lessons from Chernobyl 20 Years After* focusing on how radiological protection has been deployed to help people in the affected areas.
- A workshop was held in Paris in May to evaluate the results of the INEX 3 emergency exercises series.

to policy makers and experts who may be forced to deal with the aftermath of wide-scale disasters, regardless of their causes (natural, accidental or malicious).

## Radiological protection and public health

In a very broad sense, the notion of public health is inherently all-inclusive, not focusing on any single risk or group of risks. In this context, questions of risk prioritisation and resource allocation are important. In a more technical sense, however, this broad perspective suggests that there should be some common elements among the approaches taken to risk assessment and risk management. If radiological protection is increasingly viewed as "just another aspect of public health decision making", will this have any impact on the structures and processes of the institutions currently dedicated to only radiological protection? To address these and other related issues, the CRPPH created an expert group in 2006 and began studies and exchanges of national experience. The group will report to the CRPPH in 2007 and propose topics that can usefully be explored in greater depth.

## Operational radiological protection from a policy perspective

The influence of radiological protection policy on operational protection, and the feedback from operational protection to the formulation of protection policy are growing. For example, policy, regulatory and operational lessons can be drawn from a review of the regulatory assessment of "ALARA" (as low as reasonably achievable) programmes. New ICRP recommendations will need to be applied at the operational level, including such concepts as dose constraints and optimisation. An expert group was created to identify and discuss such issues in a preliminary fashion, and to present a report to the May 2007 meeting



The multiple facets of radiological protection concern both people and the environment.

of the CRPPH. Opportunities to leverage the operational experience of the ISOE programme will be sought.

### Radiological protection science and policy judgement

The recent CRPPH assessment of ongoing research in radiation biology has indicated that there could be a significant impact on the current system of radiological protection should the outcomes of research challenging current radiological protection assumptions continue to emerge. While none of these outcomes are at this point certain, regulatory authorities are working to remain abreast of developments in order to assess potential practical implications and to prepare for them. In this light, the CRPPH has begun preparing an international workshop to explore how policy judgements can best be made in the context of emerging scientific challenges and continuing scientific uncertainties that are often quite large. This workshop will help RP policy makers, regulators and practitioners to better understand developments, as well as possible developments, coming from RP science. At the same time, it will help RP scientists to better understand the broad processes of RP decision making, and to better interact with these processes in terms of providing input stemming from their research.

### Scoping studies

The CRPPH has identified several topics that require scoping studies before a decision for further, in-depth studies can be taken. To assist member countries in preparing for the possibility of building new nuclear power plants, a scoping study was established to explore justification and optimisation of new build and, specifically, to investigate how the concept of "best available techniques" could be relevantly applied. Using a case-study approach, another scoping group will report on how RP organisations are handling the challenge and opportunity of stakeholder involvement. Finally, following a 2005 desk study reviewing national regulations and international instruments related to the radiological protection of the environment, the NEA is producing a parallel study of national regulations and international instruments related to protection of the environment from chemical toxins to assess regulatory implications of different approaches.

### Nuclear emergency and recovery management

During 2005 and 2006, fifteen countries investigated the later-phase, decision-making processes in International Nuclear Emergency Exercises (the INEX 3 table-top exercises), examining how they might, in the wake of a contamination, implement agricultural countermeasures and food restrictions, adopt "soft" countermeasures such as travel, trade and tourism controls, communicate with the public and move towards recovery. To evaluate the results of these exercises, the Working Party on Nuclear Emergency Matters (WPNEM) held a workshop during which participants from 22 countries shared their national experiences of the exercise, collectively analysed their approaches to consequence management and the implications of any differences on decision makers, and identified issues needing additional examination at the international level. The WPNEM subsequently launched a series of initiatives to address key needs in consequence management and recovery as identified during the workshop. A synthesis report of the exercise series, workshop and follow-up activities is in preparation.

### Occupational exposure at nuclear power plants

Occupational exposure at nuclear power plants continues to be an important issue. The sharing of operational lessons and experience, as well as the collection, analysis and exchange of occupational exposure data continues to be achieved through the joint Information System on Occupational Exposure (ISOE) (see page 33 for further details). Important steps in enhancing ISOE value through a more strategic approach to meeting ISOE members' operational needs were initiated in 2006.

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