

Radiation Protection

Committee on Radiation Protection and Public Health (CRPPH)

The most significant challenge currently facing the radiation protection community is how to better integrate radiation protection within current concepts of, and approaches to, risk governance. In response to this issue, the internationally accepted principles of radiation protection, upon which virtually all national legislation is based, are in the process of being reviewed and updated. The CRPPH strategic objective is to ensure that consensus on directions for improvement is reached among radiation protection experts from national regulatory authorities, and that this consensus is taken into account during the development of new approaches and international recommendations.

Improving the system of radiological protection

While the CRPPH has, in general, found the system of radiological protection as set out in the International Commission on Radiological Protection (ICRP) Publication 60 to be robust, it has identified certain discrepancies and points that require clarification. It therefore developed with the help of an expert group a document for discussion addressing several specific areas in which the system of radiological protection could be improved to better meet current governmental and social needs, that is, to be clearer, easier to regulate and implement, more transparent, and more complementary to the management of other risks. This document will be published and offered directly to the ICRP, but also to the international radiation protection community for consideration in the development and application of international and national recommendations and regulations. The CRPPH also held two meetings with the Chair of the ICRP to provide regulator and implementor feedback on the directions being considered for the development of new recommendations.

Stakeholder involvement in radiation protection decision making

Involving various stakeholders in national and international-level decision making, particularly in areas concerning public health and environmental protection, is becoming widespread. The CRPPH pursued its investigation of stakeholder involvement in radiation protection decision making principally through holding the "Villigen series" of workshops in Switzerland. The Second Villigen Workshop was held in January 2001. A policy-level summary report of the workshop discussions has been published, and proceedings will be issued in early 2002. To facilitate national-level use of the wealth of information developed during the First and Second Villigen Workshops, good practice in the procedural aspects of how stakeholders are involved in the decision-making processes will be studied using regional analyses. This will also serve as input for the Third Villigen Workshop which is planned to be held in 2003. More information on this activity may be found in the section entitled "Nuclear Energy and Civil Society".

Radiological protection of the environment

In recent years, NEA Member countries have shown an increasing interest in identifying opportunities to enhance protection of the environment as part of their sustainable development initiatives. In order to promote and establish a process for developing a policy for radiological protection of the environment that is as broadly informed as possible, and to foster information exchange between various initiatives, the NEA, in close collaboration with the ICRP, has developed a series of fora and supporting workshops on radiological protection of the environment. The CRPPH is interested in seeing that any policy developed in this area represents international consensus, addresses national-level needs and can be practically implemented. The first of three fora was scheduled to take place in February 2002 in Italy.

The environment surrounding the PAKS nuclear power plant, Hungary.



Miklos Beregyei, PAKS nuclear power plant, Hungary

Implications of effluent release options

Radioactive effluent releases from nuclear installations during normal operation have been reduced in recent years, but are still subject to discussion. The demand for further reductions is generally driven by societal concerns about the protection of the environment. For

example, the OSPAR Commission, a political body concerned with pollution of the marine environment, introduced a strategy regarding radioactive substances that calls for a reduction of radioactive emissions to a level that would result in concentrations of artificial radionuclides in the environment that are close to zero. To assist experts and decision makers in fully understanding the technical implications and feasibility of the various effluent release options being discussed, the CRPPH is conducting a study on this subject. The results of this work will also serve as input to the CRPPH study on the evolution of the system of radiological protection. Final results are expected in 2002.

Nuclear emergency matters

The NEA has organised and analysed several international nuclear emergency exercises (INEX 1: 1993; INEX 2 series: 1996-1999). The national and international policy-level implications, experience and lessons learned from all four of the INEX 2 regional exercises were analysed, summarised and published during 2001. As a result of the INEX 2 experience, improvements have been made in emergency preparedness at the national and international levels. Areas for further improvement have also been identified. In order to validate the monitoring and data-management strategy which had been developed based on experience from the INEX 2 exercises, and to see how well lessons from INEX 2 had been implemented, the INEX 2000 exercise was developed. Based on a simulated accident at the Gravelines nuclear power plant, in France, this exercise took place in May 2001, and was to be analysed at a follow-up meeting in January 2002.



The Internet is increasingly being used for emergency communications, as shown by the Swiss website above which was prepared as part of the INEX 2000 exercise.

As part of the INEX 2000 exercise, the NEA Nuclear Law Committee and the CRPPH jointly organised a workshop to explore, for the first time, various operational aspects of implementing the

- The Committee delivered proposals for useful and effective improvements to the system of radiological protection.
- Policy-level lessons in stakeholder involvement in radiological protection decision making were developed based on experience from the "Second Villigen Workshop".
- The final evaluation of the INEX 2 series of international nuclear emergency exercises was published.
- A Forum on Radiological Protection of the Environment was prepared in collaboration with the International Commission on Radiological Protection (ICRP) in order to support the development of policy in this field.
- Participation grew in the ISOE system on occupational exposure management at nuclear power plants.

Paris and Brussels Conventions on nuclear third-party liability. Conclusions were drawn at the national and international levels regarding the application of these Conventions, and will be reported in the workshop proceedings, due to be published in 2002 (see also the chapter on Legal Affairs, page 24).

As a continuing point of interest, the CRPPH reviewed the status of knowledge from the Chernobyl accident. A report that will be published in 2002 shows that the most important radiological protection lessons from the accident are in the areas of emergency management and site rehabilitation. The INEX series of exercises has helped the nuclear emergency management community to make great improvements in preparedness, and to identify areas where further improvement is needed. Stakeholder aspects of rehabilitating contaminated sites have emerged as central to addressing the needs of populations living in contaminated areas. And finally, it has been shown that the radioactive caesium in the contaminated territories has become environmentally stable, such that further removal of this radiation source from the affected zones will only be through its physical decay. Given that caesium-137 has a 30-year half-life, there will be measurable contamination in these areas for some time to come. National policy is in the process of taking these lessons into account.



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