

## **The role of IRPA in education and training of radiation protection professionals**

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### **Abstract**

Education and training methods as well as certification and recognition systems for radiation protection professionals vary widely between different countries. IRPA supports initiatives towards harmonisation and standardisation in this field by organising refresher courses at IRPA conferences, by cooperation with international and regional governmental organisations dealing with education and training in radiation protection, and by organising discussion fora at IRPA conferences.

### **Introduction**

Education and training of radiation protection professionals was a major issue of the International Radiation Protection Association (IRPA) right from the beginning. In the first presentation at the first international IRPA Congress, held in Rome 1966, K.Z. Morgan recognised the importance of education and training in his report entitled "Development of Health Physics as a Profession". Despite the information exchange opportunities offered by the newly formed IRPA the national education and training as well as the certification schemes developed widely independent. In 1991 and 1994 the IRPA Executive Council evaluated the information collected from the Associate Societies on training and certification issues. Some 30 years after the foundation of IRPA the large difference in formality, legal requirements, recognition and training methods illustrated the difficulties to overcome by trying to unify professional recognition on a world wide scale. In view of these results it did not seem practical for IRPA to immediately promote an internationally recognised or standardised certification process. And today, almost 40 years after the first IRPA Congress, the enthusiastic expression by K.Z. Morgan: "Health Physics as a Profession" has not yet turned into an internationally recognised title.

Nevertheless, IRPA, representing some 17000 radiation protection professionals worldwide, is well suited to play a stakeholder role, especially in the field of education and training and to support and defend the interests of the 43 Associate Societies and their individual members in the establishment of international education and training programmes, e.g. by the IAEA, or in regional activities on certification and recognition of Qualified Experts, e.g. by the European Union. Direct involvement of IRPA in education and training activities is concentrated on conducting refresher courses at IRPA congresses.

### **The IRPA refresher course programme**

A concept of refresher courses has been developed for the international IRPA Congresses. It provides congress participants with an opportunity to update their knowledge in specific areas of radiation protection or professional activity. At IRPA10 in Hiroshima a total of 16 refresher courses were delivered daily in the morning before the beginning of the congress

sessions. The full text of these courses are accessible through the IRPA web site ([www.irpa.net](http://www.irpa.net)). In the programme of the upcoming IRPA11 in May 2004 in Madrid again 16 refresher courses are included. The courses are offered in four parallel sessions each morning ([www.irpa11.com](http://www.irpa11.com)). After the congress the full text of each refresher course will be made freely available on the education and training page of the IRPA web site.

The IRPA Executive Council also encourages the organisers of regional IRPA Congresses and meetings of Associate Societies to include education and training events, such as the IRPA refresher courses, in the programmes of their congresses and meetings. By this, a significant contribution to the professional enrichment of the participants can be made and international harmonisation and standardisation of professional certification and recognition can be furthered.

### **The IRPA stakeholder functions**

In addition to the development and encouragement of refresher courses for the formal exchange of information between experts and practitioners in the field, IRPA is also involved in the formation and presentation of formal training programs, such as those proposed by IAEA, as well as in the process of harmonising certification and recognition as initialised by the European Commission.

#### *Cooperation with the IAEA*

In response to an IAEA General Conference resolution in 2000, the IAEA prepared a "Strategic Approach to Education and Training in Radiation and Waste Safety" aiming at establishing, by 2010, sustainable education and training programmes in IAEA Member States. In 2002 the IAEA has created the "Steering Committee on Education and Training in Radiation Protection and Waste Safety". This committee is chaired by the IAEA secretariat and consists of some 20 members from national, regional, and collaborating education and training centres, as well as a representative each of the European Commission and IRPA. The functions of this Steering Committee are to oversee and advice on the implementation of the strategic plan for a sustainable education and training programme. The details of these functions comprise:

- to review the progress in the implementation of the strategic plan
- to identify performance indicators
- to provide advice on the establishment of an intercentre network
- to provide advice on the development and review of standardized training material
- to provide advice on the effectiveness of training programmes
- to provide advice on strategies to attain sustainability
- to make recommendations regarding the need for expert advice
- to provide advice regarding its membership

The range of education and training in radiation protection activities currently undertaken by the IAEA can be summarized as follows:

- Post-Graduate Educational Courses in Radiation Protection and Safety of Radiation Sources
- Specialized Training Courses
- On-the-Job Training
- Scientific Visits
- Workshops and Seminars
- Distance Learning

As observer in the Steering Committee, IRPA can contribute to the implementation of the IAEA strategic plan by exchanging information on actual projects with the Associate Societies. This process is about to start since the Steering Committee has recently become functional.

#### *Cooperation with the European Commission*

The European Council Directive 96/29/Euratom lays down the basic safety standards for the health protection of the general public and workers against the dangers of ionising radiation. It also defines the “Qualified Expert” and establishes requirements for their training, experience and recognition. The definition of the Qualified Expert (QE) in this document is as follows:

“Persons having the knowledge and training needed to carry out physical, technical or radiochemical tests enabling doses to be assessed, and to give advice in order to ensure effective protection of individuals and the correct operation of protective equipment, whose capacity to act as a qualified expert is recognised by the competent authorities. A qualified expert may be assigned the technical responsibility for the tasks of radiation protection of workers and members of the public.”

Recently, the Working Party on Education and Training of the Group of Experts according to Art. 31 of the Euratom Treaty stated: “Surveys indicated a wide diversity in the approaches of Member States to the training and qualifications of the radiation protection expert. This makes mutual recognition of the Qualified Expert difficult between Member States. An improved level of harmonisation would be very useful, certainly when the enlargement process of the European Union is taken into account. This would also promote the aims of the Directive on the free movement of workers in the European Union and the Directive on the safety at work.”

As a consequence of this statement the European Commission awarded a contract to carry out an extended survey with the following objectives:

- To survey the present situation of the radiation protection experts in all Member States and Applicant Countries.
- To identify the needs, requirements and procedures to move towards the mutual recognition of qualified experts in the context of the European single market and enlargement process.
- To review the current strategy on training and education in the field of radiation protection.
- To encourage the establishment of a discussion platform at an European level for the exchange of information on education and training relating to radiation protection.

This survey has been completed by end of 2002 and the report was scheduled for publication in 2003. A close, but so far informal contact has been established between the Working Party on Education and Training of the European Commission and the Task Group on Education and Training of IRPA. It is intended to continue and possibly formalise these contacts especially in view of the evaluation of the results of the above mentioned survey. In agreement with the counterparts from the European Commission, available data and information on actual projects will be made accessible and be presented for comments by the Associate Societies.

## **Platforms for discussion**

Over the last few years it has proved very successful to organise an Associate Societies' forum at all IRPA regional or international congresses. Education and training is scheduled to be one subject for discussion in the forum at IRPA11 in Madrid. On this occasion the actual role of IRPA in this field can be evaluated and if necessary adapted to the needs of the Associate Societies and their individual members. The societies will be invited to list the topics they wish to include in the agenda of the forum.

As a continuation, the subject can be followed by a specific forum to be installed on the IRPA web site after IRPA11.

Examples of questions to be discussed are:

- Is the number and quality of the available education and training courses in all regions adequate?
- Is there a need for an agreement on basic educational requirements for radiation protection professionals / qualified experts?
- Is the definition of the qualified expert suitable?
- Should the Associate Societies be involved in the national certification process of qualified experts?
- How relevant is mutual recognition of qualified experts in different regions?
- Should radiation protection professionals be trained in related fields, such as general work safety including non ionising radiation (NIR)?

## **Conclusions and outlook**

IRPA is fostering its stakeholder function on education and training needs for radiation protection professionals organised through IRPA Associate Societies. Discussion fora at IRPA congresses and on the IRPA web site contribute to this task. The IRPA Task Group welcomes suggestions on further actions to be taken to look after the interests of the radiation protection professionals regarding education and training.

## **References**

1. Karl Z. Morgan, Development of Health Physics as a Profession. 1<sup>st</sup> international IRPA Congress, Rome, 1966.
2. Frank X. Massé, Establishment and Maintenance of Professional Credentials in Radiation Protection. Regional IRPA Congress, Portsmouth, 1994.
3. Frank X. Massé and Geoff A.M. Webb, IRPA review of radiation training and credentials. Radioprotection, vol. 35, C1, 2000.
4. IAEA, Education and Training in Radiation Safety. [www-rasanet.iaea.org](http://www-rasanet.iaea.org).
5. Jan van der Steen, Minimum Requirements for Qualified Experts on Radiation Protection in Europe. European ALARA Newsletter, Issue 10, 2002.